COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY-AMERICAN WATER COMPANY FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AUTHORIZING THE CONSTRUCTION OF WATER TRANSMISSION MAINS, BOOSTER PUMP STATION AND TWO ELEVATED STORAGE TANKS FOR THE NORTHERN DIVISION CONNECTION	)))))))	CASE NO. 2012-00096

APPLICATION OF KENTUCKY-AMERICAN WATER COMPANY

Pursuant to KRS 278.020(1) and 807 KAR 5:001, Section 9, Kentucky-American Water Company ("Kentucky American Water"), by counsel, hereby petitions the Kentucky Public Service Commission (the "Commission") for a certificate of public convenience and necessity authorizing the construction of water transmission mains, a booster pump station, and two elevated storage tanks. The public convenience and necessity require the construction of these facilities so that Kentucky American Water can provide a reliable and safe water supply to its customers in its Northern Division in a least cost manner. In support of this Application, Kentucky American Water states as follows:

1. Kentucky American Water is a corporation organized and existing under the laws of the Commonwealth of Kentucky with its principal office and place of business at 2300 Richmond Road, Lexington, Kentucky 40502.

2. Kentucky American Water is a wholly-owned subsidiary of American Water Works Company, Inc. and is engaged in the distribution and sale of water in its Central Division, consisting of Bourbon, Clark, Fayette, Harrison, Jessamine, Scott and Woodford Counties and its

Northern Division, consisting of Gallatin, Owen and Grant Counties. It currently owns, operates and maintains potable water production, treatment, storage, transmission and distribution systems for the purpose of furnishing potable water for residential, commercial, industrial and governmental users in its service territory.

3. A certified copy of the Articles of Incorporation of Kentucky American Water, together with all amendments thereto, are incorporated herein by reference as authorized by 807 KAR 5:001, Section 10(l)(b)(3) and Section 8(3), and were filed as Filing Exhibit No. 4 in Case No. 95-554, *Notice of the Adjustment of the Rates of Kentucky-American Water Company effective on and after February 29, 1996*.

4. Kentucky American Water owns and operates a water treatment plant in Owenton, Kentucky ("Owenton WTP") that provides finished water to customers in KAW's Northern Division. The Owenton WTP has a design capacity of 1.44 million gallons per day ("MGD"). KAW purchased the Owenton WTP in 2005 from the city of Owenton. The Owenton WTP lacks redundancy in its pretreatment process, filter process and power supply. Improvements are needed for its chemical storage system, its raw water intake facilities, its sludge press facilities, and its SCADA computer control systems. If it remains in operation, a new elevated storage tank would be required in order to maintain adequate pressure in the Northern Division distribution system. A more detailed discussion of the inadequacies of the Owenton WTP is set forth in the Engineering Feasibility Study Report ("Feasibility Study") attached as Exhibit A.

5. Given the significant inadequacies of the Owenton WTP and the expected future operation and maintenance costs of the Owenton WTP, KAW performed the Feasibility Study to determine the most cost-effective solution of ensuring a safe and reliable water supply for the

Northern Division customers. The conclusion of the Feasibility Study is that the most cost-effective solution to provide finished water to KAW's Northern Division is to connect via pipeline KAW's recently completed Kentucky River Station II ("KRS II") water treatment plant to the Northern Division distribution system ("the Northern Division Connection"). In examining solutions to the problem, KAW studied the cost of improving the Owenton WTP to address its inadequacies versus making the Northern Division Connection.

6. As set forth in the Feasibility Study, the total estimated capital cost of improving the Owenton WTP to an acceptable level is $11,400,000. The total estimated capital cost of constructing the Northern Division Connection is $14,104,868. Thus, based on capital cost, improving the Owenton WTP is approximately $2.7 million less expensive than constructing the Northern Division Connection. However, when O&M costs for the two alternatives are considered, which they must be, the Northern Division Connection is, without question, the best and least-cost solution. Indeed, in the first year of operation alone, the O&M savings achieved by implementing the Northern Division Connection will be approximately $608,000.[1] In just a few years, the Northern Division Connection proves to be less expensive and those savings will only increase over time.

7. The Northern Division Connection project consists of three phases. Phase I includes the construction of a 16-inch transmission main from KRS II to the north side of Monterey. This includes approximately 39,620 linear feet of a 16-inch transmission main and appurtenances. This transmission main will run from KRS II to Monterey and will serve residents currently served by the Owenton WTP and that reside south of Monterey along US 127. When all phases of construction are complete, the transmission main's primary purpose will be to supply water to a new 600,000 gallon storage tank outside of Owenton. Phase I of

[1] See Appendix F to the Feasibility Study.

construction includes the decommissioning of the current Monterey tank because potable water will be directly supplied to those who are currently served by the Monterey tank.

8. Phase II continues the 16-inch transmission main north along US 127 from Monterey and connects into the Owenton system in three locations: (1) into an existing 6-inch line near the intersection of KY Highway 845 and US 127; (2) into an existing 8-inch line on US 127 near the intersection of US 127 and KY Highway 22; and (3) into an existing 6-inch line on KY Highway 22 near Thomner Trailer Park Road. Phase II includes approximately 44,945 linear feet of 16-inch transmission main and appurtenances.

9. Phase III includes the construction of a booster pump station and two elevated storage tanks. One of the storage tanks will be located on the north side of Monterey and will be 300,000 gallons. The new booster pump station will be rated for 2 MGD and will pump directly out of the 300,000 gallon elevated storage tank through the new 16-inch transmission main toward Owenton. The second elevated storage tank outside Owenton will have a capacity of 600,000 gallons.

10. The construction of the facilities shall be completed in accordance with the plans and specifications contained in collective Exhibit B. Due to their size, the plans and specifications are being delivered to the Commission in hard copy and on CD. Those documents include maps to suitable scale as required under 807 KAR 5:001, Section 9(2)(d).

11. The total capital cost of the Northern Division Connection is estimated to be $14,104,868. A breakdown of the project cost is attached as Appendix C to the Feasibility Study. The construction of the facilities as requested herein will be the most reasonable in terms of the investment in relation to efficiency and productivity and will not result in wasteful duplication of facilities or an unnecessary multiplicity of properties. As required by 807 KAR

5:001, Section 9(2)(e), Kentucky American Water states that the project will be initially funded by available funds from a previous financing or short-term bank borrowings.

12. Kentucky American Water does not believe that this facility will compete with any other water purveyor.

13. Kentucky American anticipates that the annual cost of operation of the Northern Division Connection will be $150,566 in its first year of operation (2014) with slight increases thereafter.[2]

14. In accordance with 807 KAR 5:001, Section 9(2)(b), the following permits and/or authorizations are required for the Northern Division Connection and are attached collectively as Exhibit C: (1) United States Army Corps of Engineers authorization for stream crossings dated May 9, 2012; (2) Kentucky Division of Water Quality Certification for stream crossings dated May 14, 2012; (3) Kentucky Division of Water construction permit dated February 14, 2012; (4) Kentucky Division of Water stream construction permit dated February 15, 2012; and (5) Kentucky Transportation Cabinet encroachment permits (permit numbers 06-0165-12, 06-0150-12 and 06-0166-12) dated April 2, 2012.

15. As designed, approximately 89% of the Northern Division Connection transmission main will be installed in existing road rights-of-way and approximately 11% in easements obtained from private landowners.

[2] See Appendix E to the Feasibility Study.

WHEREFORE, Kentucky American Water respectfully requests that the Commission, pursuant to the authority contained in KRS 278.020(1) and 807 KAR 5:001, Section 9, issue a certificate of public convenience and necessity for the Northern Division Connection.

Date: May 31, 2012

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF FAYETTE)

The undersigned, Cheryl Norton, being duly sworn, deposes and says she is President of Kentucky-American Water Company, and that she has personal knowledge of the matters set forth in the foregoing Application, and that the content thereof is true and correct to the best of her information, knowledge, and belief.

Cheryl D. Norton
CHERYL NORTON

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 31st day of May, 2012.

Paula I. Squires

My Commission Expires: 1/3/2015

PAULA I. SQUIRES
NOTARY PUBLIC, STATE AT LARGE

PAULA I. SQUIRES
Notary Public-State at Large
KENTUCKY - Notary ID # 434052
My Commission Expires January 03, 2015

Respectfully submitted,

STOLL KEENON OGDEN PLLC
300 West Vine Street, Suite 2100
Lexington, Kentucky 40507-1 801
Telephone: (859) 231-3000

By: _____
Lindsey W. Ingram III
Monica H. Braun

Attorneys for Kentucky-American Water Company

CERTIFICATION

In accordance with Ordering Paragraph 10 of the Commission's March 20, 2012 Order, this is to certify that the electronic version of this filing is a true and accurate copy of the documents that will be filed in paper medium on June 1, 2012; that the electronic version of this document has been transmitted to the Commission on May 31, 2012; and that, on May 31, 2012, electronic notice of this filing will be provided by the Commission's electronic notification system to:

David Edward Spenard, Esq.
david.spenard@ag.ky.gov
heather.napier@ag.ky.gov
Assistant Attorney General
Office of the Attorney General
Office of Rate Intervention
1024 Capital Center Drive, Suite 200
Frankfort, Kentucky 40601

By: _____
Attorneys for Kentucky-American Water Company

ENGINEERING FEASIBILITY STUDY REPORT

FOR

SUPPLYING KENTUCKY AMERICAN WATER'S NORTHERN DISTRICT DISTRIBUTION SYSTEM

MAY 2012

KENTUCKY
AMERICAN WATER

ENGINEERING FEASIBILITY STUDY REPORT
FOR
SUPPLYING KENTUCKY AMERICAN WATER'S
NORTHERN DISTRICT DISTRIBUTION SYSTEM

I. Background

Kentucky American Water ("KAW") purchased the Owenton Water Treatment Plant ("Owenton WTP"), located in Owen County, Kentucky, in 2005. The Owenton WTP has a design capacity of 1.44 MGD and has averaged approximately 0.83 MGD from 2006 to present. Demand projections through the year 2020 for the Northern District indicate that the average daily demand does not exceed the Owenton WTP's design capacity. The Owenton WTP was constructed in 1995 and utilizes a solids contact upflow clarifier (Claricone) for flocculation, solids removal and clarification. Rapid filtration occurs through dual-media, conventional sand filters. The Owenton WTP also utilizes the remnants from the previous water treatment plant (located adjacent to the current plant), as its sediment holding basin. The previous water treatment plant was a part of the acquisition in 2005. The source of supply for the Owenton WTP consists of a City of Owenton-owned impoundment (secondary source) and an intake on Severn Creek (primary source) near the Kentucky River.

Prior to the acquisition of the City of Owenton's Water System, KAW acquired the Elk Lake Water System (2002) and the Tri-Village Water System (2001), both located in Owen County. KAW's Northern District customer base comprises nearly 10,000 residents in 3 counties, including Owen, Gallatin, and Grant Counties. Please refer to Appendix A for a map of KAW's Northern District.

KAW began construction on the new 20 MGD Kentucky River Station II at Hardin's Landing water treatment plant ("KRS II WTP") in the summer of 2008. The KRS II WTP is located in southern Owen County (within the current Northern Division service territory) adjacent to the Kentucky River, the Franklin County line, and US 127. The KRS II WTP is now in-service. The KRS II WTP was constructed with a capacity of 20 MGD.

II. Statement of Problem

The Owenton WTP has significant problems that were identified even during the acquisition process in 2005. First and foremost, the plant operates with a single treatment process train from the raw water transfer through the sedimentation process into two filters. This single train process creates a lack of redundancy (and corresponding lack of reliability) in the delivery of raw water through the treatment plant with no ability to maintain operations should anything disrupt the treatment process. This can occur from a heavy rain event, a mechanical failure within the clarifier, or with any failure of the raw water line. The reliance on the single

claricone is a source of many problems for the operation of the plant and creates the potential for complete plant failure. The plant is simply not able to produce finished water if the claricone is out of service for any reason. A significant risk exists of failure to supply most of our customers in the Northern Division if any major maintenance or repairs to the claricone become necessary. Even minor treatment upsets within the claricone require the system to rely solely on the limited storage capacity until treatment can be re-established. This happens periodically. Portions of the system can be served from Purchase Agreements that KAW maintains with adjacent water districts but the central portion of the Northern Division, including most of Owenton, would be unserved or underserved while the claricone is out of service for more than a few hours.

Secondly, the chemical storage facilities are inadequately sized. Chemicals must be purchased in small batch quantities, which is expensive and inefficient compared to bulk chemical purchases. There is inadequate containment available to store even small quantities of some chemicals providing a significant environmental hazard risk. In order to accommodate the lack of containment, small quantities of liquid solutions are purchased and stored elsewhere, and only the container being pumped from is located at the plant. There is no safety system to contain a chlorine leak, exposing employees and neighbors to a serious potential hazard if a leak should occur.

Additionally, the Owenton WTP has no provisions for residuals processing. Filter backwash water and residuals from the claricone are piped to a settling basin, a remnant from the previous water treatment plant, which is located on an adjacent property and accessed through a narrow gravel road. Periodically, the supernatant is discharged from the top of the settling basin into the creek under a discharge permit. The walls of the concrete settling basin are rapidly deteriorating with rebar exposed nearly all the way around. There is no monitoring equipment to determine the amount of settling that has occurred or the volume of sludge in the basin. Currently there is limited ability to remove the sludge from the basin. The discharge permit limits are monitored through grab sampling. This situation has been identified by Kentucky Division of Water (“DOW”) inspectors as a risk for a violation to the discharge permit.

Another treatment issue at the plant is that there are only two filters and both are required for operation of the plant. While one is out of service for backwash, the plant is generally unable to keep up with normal system demands. Like the claricone, this situation means that the system must rely on its tanks for help in meeting demands even for minor treatment disturbances with either filter. This leaves no ability for extended maintenance, when necessary, for either filter. The sand filters are shallow, and limited in their ability to remove turbidity because of the short detention times required. This puts the entire system at risk for not meeting water quality standards. In fact, before KAW acquired the Owenton WTP, the plant was frequently unable to meet the current THM and HAA standards for disinfection by-products.

One significant concern that was identified by the DOW prior to KAW acquiring the treatment plant was the location of the raw water intake on Severn Creek. The intake is located near the confluence of Severn Creek with the Kentucky River in Pool 2. The creek has a very low flow during late summer and is similar in elevation to the Kentucky River. This results in extremely poor water quality within the creek during summer months, including high organic content as the water near the intake stagnates. The DOW and the City of Owenton agreed to relocate the intake to the Kentucky River. KAW has been able to improve the treatment enough to reduce organics in the finished water, and thus delay the relocation of the intake. But with newer, more stringent water quality standards coming, we do not anticipate that the plant will be able to continue to meet water quality regulations without moving the location of the intake downstream to the Kentucky River. Further, the intake is very isolated and difficult to access during inclement weather. The intake is a frequent site for vandalism. Judging from debris left behind, the pump house, located high above the creek, appears to be a late night congregating area for young people who are willing to scale the locked gate. In addition to the water quality issues, the intake is a security risk.

Finally, the entire distribution system does not have adequate storage available nor is there emergency power back-up at the plant. During the loss of electric service at the plant, the system is provided water through the storage tanks, which can only supply the system for a few hours. The limited capacity of the tanks and the hydraulics of the system prevent one tank (Fairgrounds) from being out of service at all. The tank is in desperate need of maintenance and has been routinely cited as a problem during DOW and PSC system inspections. This storage issue must be immediately addressed.

KAW recognized some of these issues as early as 2005 during the acquisition process and identified long-term capital construction requirements as part of the evaluation of the system. Other issues became obvious with the ongoing operations of the facilities and were highlighted during regulatory inspections. KAW even began preliminary design of some of the improvements, but also began an analysis for alternatives. With the construction of the KRS II WTP, KAW recognized that there may be a significant cost savings in supplying treated water to Owenton from the KRS II WTP instead of upgrading the Owenton WTP.

III. Scope of Study

This feasibility study will identify and evaluate the alternatives to supplying Kentucky American Water's Northern District Distribution System. The objectives of the Study are to:

- Identify and evaluate the feasibility, based on capital improvement and Operations & Maintenance (O & M) costs, of supplying the Northern District from the KRS II WTP.
- Identify and evaluate the feasibility, based on capital improvement and O & M costs, of maintaining operation of the Owenton WTP to supply the Northern District.

IV. Northern District Supply Alternatives

IV. A. KRS II WTP Supply

Supplying the Northern District from the KRS II WTP entails constructing approximately 16 miles of 16-inch main along US 127 from the KRS II WTP to the intersection of KY 22/US 127 in Owenton and then proceeding east along KY 22 to near the intersection of Old Monterey Road and KY 22. Refer to Appendix B for a map of the proposed project corridor. The project phases are described below.

Phase I of the Northern Division Connection project includes the construction of a 16-inch transmission main from the KRS II WTP to the north of Monterey. This includes approximately 39,620 linear feet of a 16-inch transmission main and appurtenances. This transmission main will supply flow from KRS II to Monterey and enable connections that will allow service to residents who are currently served by the Owenton WTP and that reside south of Monterey along US 127. When all phases of construction are complete, the transmission main's primary purpose will be to supply water to the new 600,000 gallon elevated storage tank that will be constructed outside of Owenton (see Phase III below). Phase 1 of construction includes the decommissioning of the Monterey tank because potable water will be directly supplied by the KRS II WTP.

Phase II continues the 16-inch transmission main north along US 127 from Monterey and connects into the Owenton system in three locations: into an existing 6-inch line near the intersection of KY 845 and US 127, into an existing 8-inch line on US 127 near the intersection of US 127 and KY 22, and into an existing 6-inch line on KY 22 near Thomner Trailer Park Road. This includes approximately 44,945 linear feet of a 16-inch transmission main and appurtenances.

Phase III includes the construction of two elevated storage tanks and a booster pump station. The first storage tank will be constructed on the north side of Monterey and will be 300,000 gallons. The second elevated storage tank will be constructed outside of Owenton and will be 600,000 gallons. The new booster pump station will be rated for 2 MGD and will pump directly out of the 300,000 gallon elevated storage tank through the new 16-inch transmission main to Owenton.

The Project Capital Cost Estimate is $14,104,868 based on construction bids received. The breakdown of these costs is detailed in Appendix C.

In addition to the proposed project corridor, two alternate routes were initially studied as illustrated in Appendix B. Alternate A would connect directly to the 8-inch transmission main at the Owenton WTP. Alternate B considers utilizing the existing 5 miles of 12-inch raw water line and raw water pumps from the intake to the Owenton WTP. Neither alternates A nor B

addressed storage volume and capacity needs and consequently, were ultimately not considered viable alternatives. Therefore, detailed cost estimates were not developed.

IV B. Maintain Owenton WTP Supply

Several capital improvement projects would be necessary in the very near future to maintain operation of the Owenton WTP in a reliable, acceptable and compliant fashion. These projects include 1) Chemical Bulk Storage Improvements, 2) Pretreatment Reliability Improvements, 3) Residuals Handling Improvements, 4) Filter Reliability Improvements, 5) Emergency Power Reliability Improvements, 6) SCADA (Supervisory Control and Data Acquisition) System Improvements, 7) Raw Water Intake Improvements, and 8) New Storage Tank to meet system demands. The Proposed capital costs associated for these projects are $11,400,000 as summarized in the table below.

Several factors contribute to the need for the capital improvement projects and can be grouped into the following categories: a) Local/State Regulations, b) Kentucky American Water Guidelines, c) OSHA Regulations, d) Reliability, and e) Operation Efficiency. The following table depicts the driving factors for each of the capital improvement projects.

CAPITAL IMPROVEMENT PROJECTS	ESTIMATED PROJECT COST	CONTRIBUTING FACTORS				
		Local/State Regulations	Kentucky American Water Guidelines	Improved Safety	Reliability	Operation Efficiency
Chemical Bulk Storage Improvements	$ 2,100,000	✓	✓	✓		✓
Pretreatment Reliability Improvements	$ 1,200,000	✓	✓		✓	
Residuals Handling Improvements	$ 1,800,000	✓	✓	✓		✓
Filter Reliability Improvements	$ 1,700,000	✓	✓		✓	
Emergency Power Reliability Improvements	$ 600,000	✓	✓		✓	
SCADA Improvements	$ 300,000		✓			✓
Raw Water Intake Improvements	$ 1,400,000	✓	✓	✓		✓
New Storage Tank	$ 2,300,000	✓	✓		✓	✓

The Chemical Bulk Storage Improvements Project will address KAW and DOW requirements for proper chemical bulk storage with containment and, also, the safety requirement

for a gas scrubber on the existing chlorine room. Adequate chemical storage capacity will be created for more efficient operations of the plant. The preliminary capital cost estimate for this project is $2,100,000.

The Pretreatment Reliability Improvement Project will address the lack of reliability at the plant in the sedimentation process. The proposed Pretreatment Reliability Project will address this risk with the construction of a second pretreatment system to provide the necessary redundancy for the operation of the plant. The preliminary capital cost estimate for this project is $1,200,000.

The Residuals Handling Improvements Project will address discharge permit concerns with the sediment settling basin. Remnants from the previous water treatment plant will be demolished and a new basin will be constructed to ensure that discharge permit requirements are met. Also, the narrow gravel access lane to this site will require improvements as a part of this project. The preliminary capital cost estimate for this project is $1,800,000.

The Filter Reliability Project will address KAW and DOW reliability concerns with the filter process. The proposed project will double the amount of sand filters from 2 to 4 and will build in redundancy and reliability in the treatment process. This will improve filter operations and allow for maintenance at any time if necessary. The preliminary capital cost estimate for this project is $1,700,000.

The Emergency Power Reliability Project will address KAW and DOW reliability concerns with the entire treatment plant. The proposed project would include the installation of a generator to backup the high service pumps and also the installation of a generator to backup the raw water pumps. The preliminary capital cost estimate for this project is $600,000.

The SCADA Improvements Project will include the addition of central control capabilities to the Owenton WTP which will increase the efficiencies in the operation of the plant. This will allow for consistent treatment monitoring and reporting in order to meet DOW regulations. The preliminary capital cost estimate for this project is $300,000.

The Raw Water Intake Improvements Project will address safety and security concerns with the Severn Creek Intake. Once the new Intake on the Kentucky River is constructed, the Severn Creek Intake will remain in service to pump the raw water to the Owenton WTP. The project also includes the replacement of the permanganate feed system. The preliminary capital cost estimate for this project is $1,400,000.

Finally, the construction of a new elevated storage tank in Owenton will address reliability and operational inefficiencies with the existing Fairgrounds Tank. The new storage tank will allow for Fairgrounds tank to be taken out of service to perform maintenance. The new storage tank will also provide additional reliability and support throughout the Northern Service District. The preliminary capital cost estimate for this project is $2,300,000.

V. Operation and Maintenance Costs

In addition to comparing the capital costs of the two alternatives, the Operation and Maintenance (O & M) Costs were evaluated. The estimated O&M Costs for the Owenton WTP are identified in Appendix D. The O&M Costs associated with the KRS II WTP Supply Alternative are based on the additional Chemical and Fuel & Power costs to deliver an average of 0.83 MGD to the Northern District. The O&M Costs also include Fuel & Power costs associated with a new booster station. These costs are summarized in Appendix E.

VI. Other Considerations

In addition to the capital construction comparison, there are other issues that are intangible and should be considered during an alternative analysis. First, the Owenton WTP utilizes the Lower Thomas Lake as its back-up raw water supply, which has visible deterioration on the dam face. While higher organics in the lake have made this supply more difficult to treat and thus less frequently utilized, it is absolutely critical for use during dry periods that cause low flow in Severn Creek. A failure of the dam, which is owned by the City of Owenton, would be catastrophic to the operation of the facilities at the Owenton WTP. The cost of any repairs or maintenance to the dam has not been considered as part of the alternatives analysis.

Additionally, the Owenton WTP has limited security available, although it is located in a more populated area than the KRS II WTP. The property is fenced and gated, but there is no surveillance or monitoring for emergency services. The installation of security measures at the plant have not been considered as part of the alternatives analysis.

Finally, the reliability of operations is nearly as important to consumer confidence as the water quality they ingest. Obviously, water reliability is critical to the Owenton community for any number of reasons, including life-threatening health and safety reasons. Water redundancy and reliability are consistently designed in water treatment plants across the Commonwealth of Kentucky and the rest of the country. KAW's KRS II WTP has such built-in redundancy. Without that redundancy at the Owenton WTP, when occasional treatment disturbances have occurred, KAW and its customers are faced with unacceptable levels of risk. To date, when those disturbances have occurred, KAW staff has managed the problem by quickly re-establishing safe plant operations. But the ability to do so is severely limited because stored tank water provides only a very limited supply of finished water. On more than one occasion, KAW has been on the verge of issuing system-wide boil water advisories due to loss of system pressure and/or delivery of poor quality water. KAW has been able to avoid both those problems and system-wide pressure loss, but the inadequacies of the Owenton WTP are creating an unacceptable level of risk. Neither KAW nor its customers should face these unacceptable risks.

V. Comparison of Alternatives

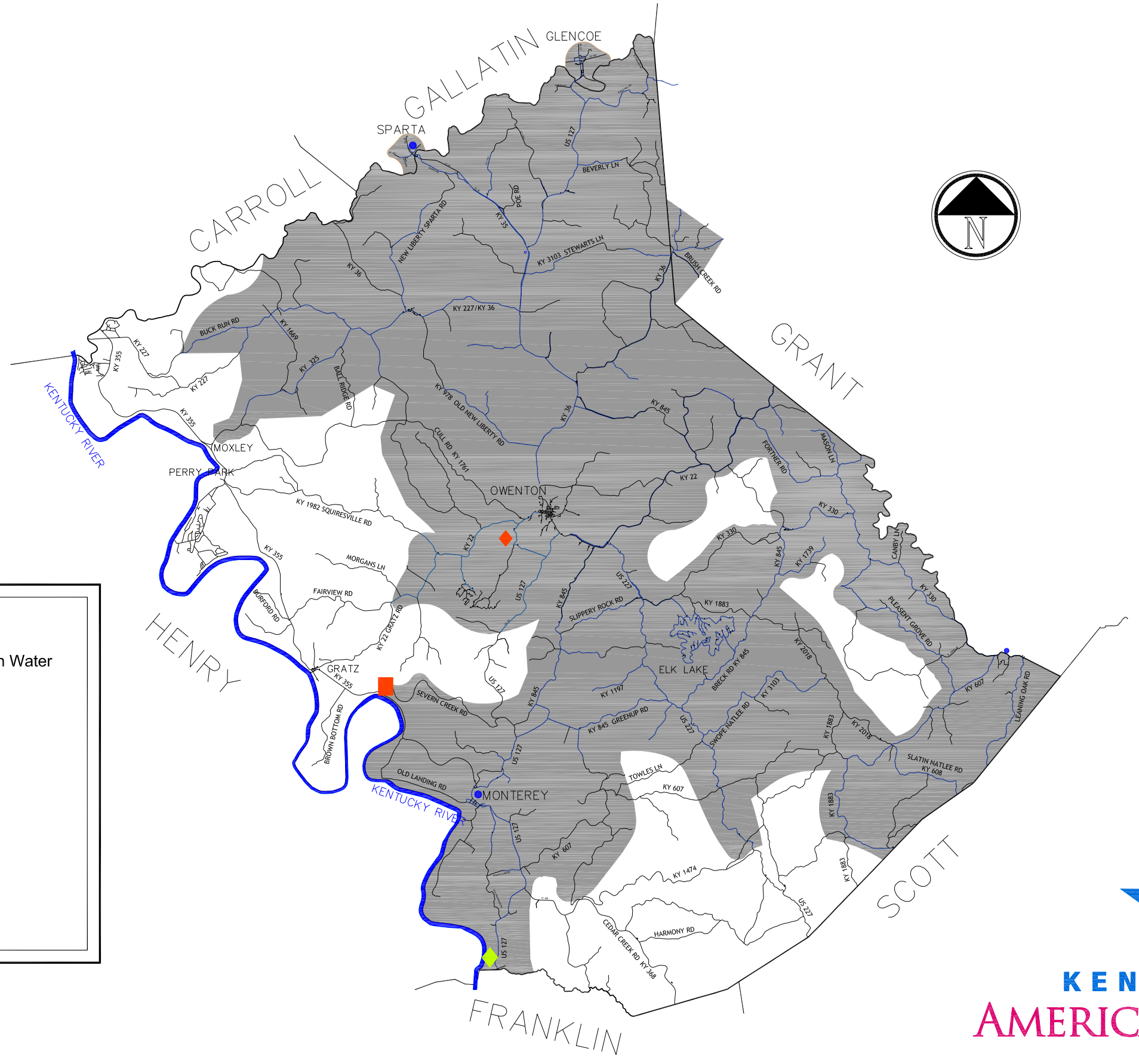
The capital cost for the KRS II WTP Supply Alternative is estimated to be $14.1 million and the capital cost for the Owenton WTP Supply Alternative is estimated to be $11.4 million, with a difference of $2.7 million. The O&M Costs for the two alternatives are summarized on the table in Appendix F. In the first full year of operations, year 2014, the savings in O & M costs by implementing the KRS II WTP Supply Alternative are projected to be $608,000. Those savings are projected to grow through 2020 to $744,000 annually. Within just a few years, those savings become greater than the $2.7 million capital cost difference. Over time, the savings will dwarf the capital cost difference. The result is that the KRS II WTP Supply Alternative is the clear least cost solution for the problem.

VI. Conclusions and Recommendation

The KRS II WTP Supply Alternative requires a greater amount of capital investment but the savings in O&M Costs is substantial when compared to the Owenton WTP Supply Alternative. The KRS II WTP Supply Alternative is clearly the least cost option. Further, in reviewing the intangible issues for consideration, the KRS II WTP Supply Alternative resolves other issues that are not easily quantifiable. The KRS II WTP Supply Alternative is the recommended solution for supplying water to the Northern District.

APPENDIX A
MAP OF KAW'S NORTHERN DISTRICT

NORTHERN DISTRICT



Kentucky American Water Northern Division Service Area

Owenton Water Treatment Plant

Owenton Raw Water Intake

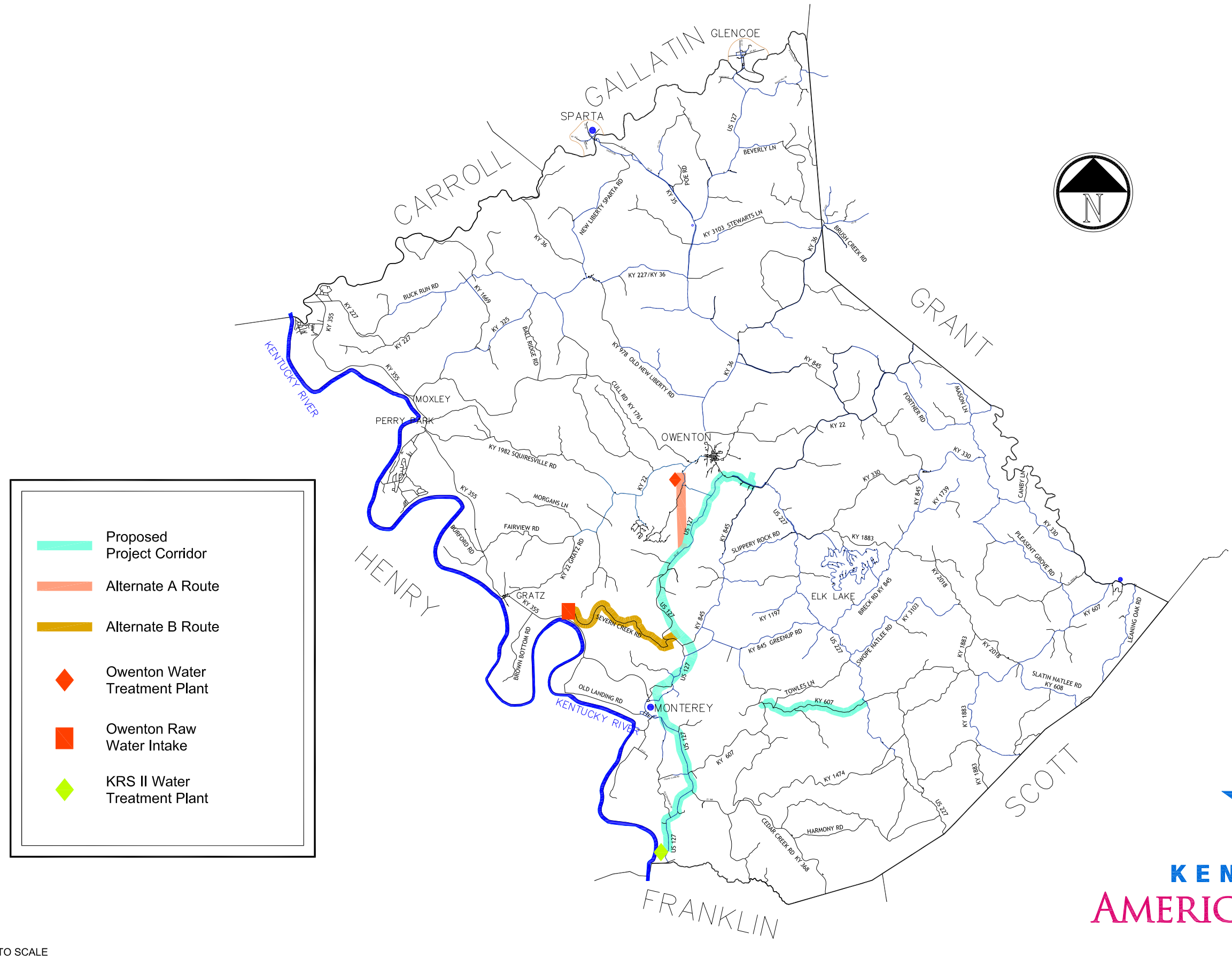
KRS II Water Treatment Plant

NOT TO SCALE

KENTUCKY AMERICAN WATER

APPENDIX B
PROJECT CORRIDOR

NORTHERN DISTRICT



KENTUCKY AMERICAN WATER

NOT TO SCALE

APPENDIX C
NORTHERN DISTRICT CONNECTION
PROJECT COST ESTIMATE

Northern District Connection
Project Cost Estimate
May 2012

1.	Phase 1 - US 127 Material Costs[A]	$1,472,260
2.	Phase 1 - US 127 Construction Contractor Costs[B]	$2,792,219
3.	Phase 2 Material Costs[A]	$1,685,357
4.	Phase 2 Construction Contractor Costs[B]	$2,352,760
5.	Phase 3 Construction Costs (Includes Materials)[B]	$3,664,100
6.	Design, Easement Development & Acquisition	$512,960
7.	BPS and Tank Site Purchase	$81,250
8.	Easement Purchase[C]	$94,000
9.	Construction Administration and Inspection	$257,000
10.	9.2% Misc.	$1,192,962
11.	Total Project Cost Estimate:	**$14,104,868**

Notes:

A. Based on current KAW Vendor pricing for owner supplied materials.

B. Based on February 28, 2012 Bid Results.

C. Based on the need for approx. 9,400 LF of easement @ $10/LF.

APPENDIX D
OWENTON WTP O & M COSTS

Owenton WTP O & M Costs
May 2012

Year	O & M Item				Yearly Total
	Labor[2]	Chemical[1]	Fuel and Power[1,4]	Sludge Disposal[3]	
2014	$362,653	$222,307	$141,320	$32,083	**$758,363**
2015	$373,532	$222,307	$150,126	$33,687	**$779,652**
2016	$384,738	$222,307	$153,529	$35,371	**$795,945**
2017	$396,280	$237,868	$168,882	$37,140	**$840,170**
2018	$408,169	$254,519	$185,770	$38,997	**$887,455**
2019	$420,414	$272,336	$204,347	$40,947	**$938,044**
2020	$433,026	$291,399	$224,782	$42,994	**$992,201**

Notes:

1. Chemical and Fuel and Power costs are based on KAW's 2012-2016 Budget Plan. Chemical costs are est
   each year after 2016. Fuel and Power costs are estimated to increase 10% each year after 2016.
2. Labor costs are based on KAW's 2012 Budget Plan and are estimated to increase 3% each year.
3. Sludge Disposal costs are based on KAW's 2012 Budget Plan and are estimated to increase 5% each yea
4. Fuel and Power costs have been adjusted in 2014 with an addition of $15,000 to account for new intake cc

APPENDIX E
ADDITIONAL KRS II WTP SUPPLY O & M COSTS

Additional KRS II WTP Supply
O & M Costs
May 2012

Year	O & M Item - KRS II WTP			New Booster Station - Fuel and Power	Yearly Total
	Labor	Chemical	Fuel and Power		
2014	$0	$40,292	$93,612	$16,662	**$150,566**
2015	$0	$40,292	$102,973	$18,328	**$161,594**
2016	$0	$40,292	$113,270	$20,161	**$173,724**
2017	$0	$43,113	$124,597	$22,177	**$189,887**
2018	$0	$46,131	$137,057	$24,395	**$207,583**
2019	$0	$49,360	$150,762	$26,835	**$226,957**
2020	$0	$52,815	$165,839	$29,518	**$248,172**

Notes:

1. Chemical and Fuel and Power costs are based on KAW's 2012 Budget Plan. Chemical costs are estimated to increase 7% each year after 2016. Fuel and Power costs are estimated to increase 10% each year.
2. Labor costs are estimated to be $0 since no additional personnel would be required to provide the additional flow.

APPENDIX F
O & M COST COMPARISON

O & M Cost Comparison
May 2012

Year	O & M Costs		Cummulative O & M Savings for KRS II WTP Supply Alternative
	Owenton WTP Supply	KRS II WTP Supply	
2014	$758,363	$150,566	**$607,797**
2015	$779,652	$161,594	**$1,225,855**
2016	$795,945	$173,724	**$1,848,077**
2017	$840,170	$189,887	**$2,498,359**
2018	$887,455	$207,583	**$3,178,232**
2019	$938,044	$226,957	**$3,889,319**
2020	$992,201	$248,172	**$4,633,348**

EXHIBIT B - PLANS AND SPECIFICATIONS

(Provided in hard copy and on CD)

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
P.O. BOX 59
LOUISVILLE KY 40201-0059
FAX: (502) 315-6677
http://www.lrl.usace.army.mil/

May 9, 2012

Operations Division
Regulatory Branch (South)
ID No. LRL-2012-00057-jea

Mr. Jason Hurt
Kentucky American Water
2300 Richmond Road
Lexington, Kentucky 40502

Dear Mr. Hurt:

This is in response to your request for authorization to install a 16-inch water main and 6-inch water main across Elk Lick Creek, Severn Creek and two (2) locations of Cedar Creek along with seven (7) locations of their unnamed tributaries (UNTs) and three (3) UNTs of Kentucky River and three (3) UNTs of Morgadore Creek in Owen County, Kentucky. The proposed work consists of placing the pipes using the open cut method and backfilling the trenches with the dredged fill material. This project is in association with Northern Division Connection which includes Phase I - US 127 Transmission Main and KY 607 Water Main Extension and Phase 2 - US 127 and KY 22 Transmission Main. In addition, the work consists of the installation of two elevated storage tanks, installation of one booster pump station (Phase 3) and the demolition of two existing water treatment plants (Phase 4). The information supplied by you was reviewed to determine whether a Department of the Army (DA) permit will be required under the provisions of Section 404 of the Clean Water Act.

Your project is considered a discharge of backfill or bedding material for utility lines. The project is authorized under the provisions of 33 CFR 330 Nationwide Permit (NWP) No. 12, Utility Line Activities, as published in the Federal Register February 21, 2012. Under the provisions of this authorization, you must comply with the enclosed Terms and General Conditions for Nationwide Permit No. 12 and the following Special Condition:

> The permittee shall conduct all project-associated removal of trees 5" DBH or greater between the dated of October 15 to March 31 to avoid summer roost habitat for the Federally-listed Indiana bat.

Since the Commonwealth of Kentucky has denied the required Water Quality Certification (WQC) subject to Section 401 of the Clean Water Act for this particular NWP, you must apply for and receive individual WQC for this project. You may apply for WQC by contacting the Commonwealth of Kentucky at the following address.

Kentucky Energy and Environment Cabinet
Division of Water
200 Fair Oaks, 4th Floor
Frankfort, Kentucky 40601
Phone (502) 564-3410
Fax (502) 564-4245

If they fail to respond to your request for authorization within **60 calendar days**, the WQC is considered waived. The responsibility for obtaining the State WQC rests with you.

Once you obtain individual WQC, you may proceed with the project without further contact or verification from us.

This decision is valid for 2 years from the date of this letter. The enclosed Compliance Certification should be signed and returned when the project is completed. If your project is not completed within this 2-year period or if your project is modified, you must contact us for another permit determination. Note that we also perform periodic inspections to ensure compliance with our permit conditions and applicable Federal laws. A copy of this letter is being sent to the appropriated coordinating agencies and to your agent (see enclosure for addresses).

Attached to this verification that the project is authorized by NWP No. 12 are a preliminary jurisdictional determination (JD), a Notification of Appeal Process (NAP) fact sheet, and Request for Appeal (RFA) form. However, a preliminary JD is not appealable and impacting "waters of the U.S." identified in the preliminary JD will result in you waiving the right to request an approved JD at a later date. An approved JD may be requested (which may be appealed), by contacting me for further instruction.

If you have any questions, please contact this office by writing to the above address, ATTN: CELRL-OP-FS, or by calling me at (502) 315-6682. All correspondence pertaining to this matter should refer to our ID No. LRL-2012-57-jea.

Sincerely,

Jane Archer

Jane Archer
Regulatory Specialist
Regulatory Branch

Enclosures

Terms for Nationwide Permit No. 12 – Utility Line Activities

12. Utility Line Activities. Activities required for the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project.

Utility lines: This NWP authorizes the construction, maintenance, or repair of utility lines, including outfall and intake structures, and the associated excavation, backfill, or bedding for the utility lines, in all waters of the United States, provided there is no change in pre-construction contours. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and radio and television communication. The term "utility line" does not include activities that drain a water of the United States, such as drainage tile or french drains, but it does apply to pipes conveying drainage from another area.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

Utility line substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with a power line or utility line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for overhead utility line towers, poles, and anchors: This NWP authorizes the construction or maintenance of foundations for overhead utility line towers, poles, and anchors in all waters of the United States, provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of utility lines, including overhead power lines and utility line substations, in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize utility lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (See 33 CFR Part 322). Overhead utility lines constructed over section 10 waters and utility lines that are routed in or under section 10 waters without a discharge of dredged or fill material require a section 10 permit.

This NWP also authorizes temporary structures, fills, and work necessary to conduct the utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if any of the following criteria are met: (1) the activity involves mechanized land clearing in a forested wetland for the utility line right-of-way; (2) a section 10 permit is required; (3) the utility line in waters of the United States, excluding overhead lines, exceeds 500 feet; (4) the utility line is placed within a jurisdictional area (i.e., water of the United States), and it runs parallel to or along a stream bed that is within that jurisdictional area; (5) discharges that result in the loss of greater than 1/10-acre of waters of the United States; (6) permanent access roads are constructed above grade in waters of the United States for a distance of more than 500 feet; or (7) permanent access roads are constructed in waters of the United States with impervious materials. (See general condition 31.) (Sections 10 and 404)

Note 1: Where the proposed utility line is constructed or installed in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, copies of the pre-construction notification and NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.

Note 2: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the utility line must be removed upon completion of the work, in accordance with the requirements for temporary fills.

Note 3: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, not utility lines, and may require a permit from the U.S. Coast Guard pursuant to Section 9 of the Rivers and Harbors Act of 1899. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a section 404 permit (see NWP 15).

Note 4: For overhead utility lines authorized by this NWP, a copy of the PCN and NWP verification will be provided to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR §§ 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR § 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

17. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed work or that utilize the designated critical habitat that might be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. FWS or the NMFS, The Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.noaa.gov/fisheries.html respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for obtaining any "take" permits required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the U.S. Fish and Wildlife Service to determine if such "take" permits are required for a particular activity.

20. Historic Properties. (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including

previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties on which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 31, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in minimal adverse effects on the aquatic environment.

(2) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(3) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) – (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(4) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(5) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream rehabilitation, enhancement, or preservation, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the restoration or establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50

feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to establish a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or establishing a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee programs, or separate permittee-responsible mitigation. For activities resulting in the loss of marine or estuarine resources, permittee-responsible compensatory mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide

permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____

(Transferee)

_____

(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized work was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the work and mitigation.

31. Pre-Construction Notification. (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 20 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified

limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause, including the anticipated amount of loss of water of the United States expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(4) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse effects are minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States, for NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of intermittent and ephemeral stream bed, and for all NWP 48 activities that require pre-construction notification, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious

manner) a copy of the complete PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

D. District Engineer's Decision

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. For a linear project, this determination will include an evaluation of the individual crossings to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings authorized by NWP. If an applicant requests a waiver of the 300 linear foot limit on impacts to intermittent or ephemeral streams or of an otherwise applicable limit, as provided for in NWPs 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51 or 52, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in minimal adverse effects. When making minimal effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

2. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity

complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

3. If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either: (a) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (c) that the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period, with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

E. Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project.

Compliance Certification:

Permit Number: LRL-2012-00057-jea

Name of Permittee: Kentucky American Water

Date of Issuance: May 9, 2012

Upon completion of the activity authorized by this permit and any mitigation required by this permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers
CELRL-OP-FS
P.O. Box 59
Louisville, Kentucky 40201

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

_____ _____

Signature of Permittee Date

ADDRESS FOR COORDINATING AGENCY

Ms. Sandra Gruzesky
Director
Kentucky Energy and Environment Cabinet
Division of Water
200 Fair Oaks, 4th Floor
Frankfort, Kentucky 40601

Mr. Lee Andrews
U.S. Fish & Wildlife Service
JC Watts Federal Building
330 West Broadway, Room 265
Frankfort, KY 40601

ADDRESS FOR AUTHORIZED AGENT

Mr. Mark C. Askin
Strand Associates, Inc.
325 West Main Street, Suite 710
Louisville, Kentucky 40202

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): March 23, 2012

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD: Jason Hurt, P.E., Kentucky American Water, 2300 Richmond Road, Lexington, KY 40502

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: CELRL-OP-FS, Northern Division Connection, Phase1 – US 127 Transmission Main & KY 607 Water Main Extension; Phase 2 – US 127 & KY 22 Transmission Main; Phase 3 – Booster Pump Station with Elevated Storage and Owenton Elevated Storage Tank; and Phase 4 – Demolition of Owenton Water Treatment Plants, Corps ID Number LRL-2012-00057-jea

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION: (USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)

State: Kentucky County/parish/borough: Owen County City:
Center coordinates of site (lat/long in degree decimal format): Lat. 38° 24' 59" N, Long. -84° 51'14.17" **W**.
Universal Transverse Mercator:
Name of nearest waterbody: Cedar Creek

Identify (estimate) amount of waters in the review area:
Non-wetland waters: 4375 linear feet: varying width (ft) and/or 3.78 acres.
Cowardin Class: Riverine
Stream Flow: Ephemeral, Intermittent, Perennial
Wetlands: acres.
Cowardin Class:

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal:

Non-Tidal:

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: March 23, 2012
☒ Field Determination. Date(s): March 13, 2012

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): March 23, 2012

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD: Jason Hurt, P.E., Kentucky American Water, 2300 Richmond Road, Lexington, KY 40502

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: CELRL-OP-FS, Northern Division Connection, Phase1 – US 127 Transmission Main & KY 607 Water Main Extension; Phase 2 – US 127 & KY 22 Transmission Main; Phase 3 – Booster Pump Station with Elevated Storage and Owenton Elevated Storage Tank; and Phase 4 – Demolition of Owenton Water Treatment Plants, Corps ID Number LRL-2012-00057-jea

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Universal Transverse Mercator:
Name of nearest waterbody: Cedar Creek

Identify (estimate) amount of waters in the review area:
Non-wetland waters: 4375 linear feet: varying width (ft) and/or 3.78 acres.
Cowardin Class: Riverine
Stream Flow: Ephemeral, Intermittent, Perennial
Wetlands: acres.
Cowardin Class:

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal:

Non-Tidal:

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: March 23, 2012
☒ Field Determination. Date(s): March 13, 2012

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Department of the Army Application Form ENG 4345 dated 1/4/12 with associated plans (January 2012) by Strand Associates, Inc. on behalf of Kentucky American Water.

☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.

- ☐ Office concurs with data sheets/delineation report.
- ☐ Office does not concur with data sheets/delineation report.

☐ Data sheets prepared by the Corps:

☐ Corps navigable waters' study:

☐ U.S. Geological Survey Hydrologic Atlas:

- ☐ USGS NHD data.
- ☐ USGS 8 and 12 digit HUC maps.

☒ U.S. Geological Survey map(s). Cite scale & quad name:1:24,000; Monterery, KY and Switzer, KY

☐ USDA Natural Resources Conservation Service Soil Survey. Citation:

☐ National wetlands inventory map(s). Cite name:

☐ State/Local wetland inventory map(s):

☐ FEMA/FIRM maps:

☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)

☐ Photographs: ☐ Aerial (Name & Date):

or ☐ Other (Name & Date):

☐ Previous determination(s). File no. and date of response letter:

☐ Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Jane Archer 3/28/12
Signature and date of
Regulatory Project Manager
(REQUIRED)

Jason M. Tate 3/26/12
Signature and date of
person requesting preliminary JD
(REQUIRED, unless obtaining
the signature is impracticable)

Site Number	Latitude (North)	Longitude (West)	Cowardin Class	Estimated Amount of Aquatic resource in Review Area	Class of Aquatic Resource
PHASE 1 - KY 607					
1 Elk Lick Creek	38°25'33.97"	-84°48'11.06"	Riverine	40 Linear Feet .03 acres	non-section 10 – non-wetland
2 Tributary of Elk Lick Creek	38°25'33.57"	-84°47'05.62"	Riverine	40 Linear Feet .02 acres	non-section 10 – non-wetland
3 Tributary of Elk Lick Creek	38°25'34.88"	-84°51'46.72"	Riverine	45 Linear Feet .04 acres	non-section 10 – non-wetland
PHASE 1 - US 127					
4 Tributary of Morgadore Creek	38°22'26.49"	-84°51'45.05"	Riverine	420 Linear Feet .19 acres	non-section 10 – non-wetland
5 Tributary of Morgadore Creek	38°22'36.80"	-84°51'36.16"	Riverine	300 Linear Feet .14 acres	non-section 10 – non-wetland
6 Tributary of Morgadore Creek	38°22'46.76"	-84°51'22.66"	Riverine	440 Linear Feet .2 acres	non-section 10 – non-wetland
7 Tributary of Cedar Creek	38°23'44.85"	-84°51'58.24"	Riverine	260 Linear Feet .12 acres	non-section 10 – non-wetland
8 Tributary of Cedar Creek	38°24'23.21"	-84°51'11.35"	Riverine	200 Linear Feet .07 acres	non-section 10 – non-wetland
9 Tributary of Cedar Creek	38°24'54.40"	-84°51'27.09"	Riverine	125 Linear Feet .04 acres	non-section 10 – non-wetland
10 Cedar Creek '	38°25'13.22"	-84°52'19.90"	Riverine	110 Linear Feet .05 acres	non-section 10 – non-wetland
11 Tributary to Kentucky River	38°25'40.33"	-84°52'22.24"	Riverine	115 Linear Feet .05 acres	non-section 10 – non-wetland
12 Cedar Creek	38°25'27.31"	-84°52'02.62"	Riverine	375 Linear Feet .99 acres	non-section 10 – non-wetland

Site Number	Latitude (North)	Longitude (West)	Cowardin Class	Estimated Amount of Aquatic resource in Review Area	Class of Aquatic Resource
13 Tributary to KY River	38°25' 36.95"	-84°52'05.43"	Riverine	360 Linear Feet .17 acres	non-section 10 – non-wetland
14 Tributary to KY River	38°25'56.11"	-84°52'01.48"	Riverine	425 Linear Feet .20 acres	non-section 10 – non-wetland
PHASE 2 - US 127					
15 Tributary to Severn Creek	38°27'09.99"	-84°51'13.61"	Riverine	240 Linear Feet .11 acres	non-section 10 – non-wetland
16 Severn Creek	38°27'35.36"	-84°51'37.11"	Riverine	355 Linear Feet 1.12 acres	non-section 10 – non-wetland
17 Tributary to Severn Creek	38°27'50.10"	-84°51'46.49"	Riverine	525 Linear Feet .24 acres	non-section 10 – non-wetland

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Kentucky American Water	File Number: LRL-2012-00057-jea	Date: 5/9/12

Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
	APPROVED JURISDICTIONAL DETERMINATION	D
X	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.

- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:	If you only have questions regarding the appeal process you may also contact: Pauline Thorndike U.S. Army Corps of Engineers Great Lakes and Ohio River Division 550 Main Street, Room 10032 Cincinnati, OH 45202-3222 TEL (513) 684-6212; FAX (513) 684-2460 pauline.d.thorndike@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:	Telephone number:

STEVEN L. BESHEAR
GOVERNOR

LEONARD K. PETERS
SECRETARY

ENERGY AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
200 FAIR OAKS LANE
FRANKFORT, KENTUCKY 40601
www.kentucky.gov

May 14, 2012

Jason Hurt, Project Manager
KY American Water Company
2300 Richmond Road
Lexington, KY 40502

Re: Water Quality Certification #2012-026-1
Kentucky American Northern Division
AI No.: 34054, Activity ID: APE20120005
USACE ID No.: LRL-2012-00057-jea
Elk Lick Creek, Cedar Creek, Severn Creek
Owen County, Kentucky

Dear Mr. Hurt:

Pursuant to Section 401 of the Clean Water Act (CWA), the Commonwealth of Kentucky certifies it has reasonable assurances that applicable water quality standards under Kentucky Administrative Regulations Title 401, Chapter 10, established pursuant to Sections 301, 302, 303, 304, 306, and 307 of the CWA, will not be violated by the above referenced project provided that the U.S. Army Corps of Engineers authorizes the activity under 33 CFR part 330, and the attached conditions are met.

All future correspondence on this project must reference **AI No. 34054**. **The attached document is your official Water Quality Certification; please read it carefully**. If you should have any questions concerning the conditions of this water quality certification, please contact Ms. Joyce Fry of my staff by calling (502) 564-3410.

Sincerely,

Barbara J. Scott

Barbara Scott, Supervisor
Water Quality Certification Section
Kentucky Division of Water

BJS:JF
Attachment
cc: Jane Archer, USACE: Louisville District
Lee Andrews, USFWS: Frankfort
Mark Askin, Strand Associates, Inc., 325 West Main St, Suite 710, Louisville, KY 40202
Malissa McAlister, Kentucky River Authority Basin Coordinator: Lexington

Water Quality Certification

Kentucky American Northern Division
Facility Requirements
Permit Number:WQC#2012-026-1
Activity ID No.: APE20120005

STRC0000000011 (Transmission Main) Water transmission main crossing Elk Lick, Cedar Creek, Severn Creek and the Kentucky River or their tributaries :

Submittal/Action Requirements:

Condition	Condition
S-1	Kentucky American Water shall notify the Division: Due prior to any construction activity Notify KDOW at least two weeks prior to construction and no later than two weeks post-construction. Notify Joyce Fry at joyce.fry@ky.gov or (502) 564-3410. [Clean Water Act]

Narrative Requirements:

Condition	Condition
T-1	The work approved by this certification shall be limited to: - the installation of water main requiring twenty stream crossings, resulting in temporary impacts to approximately 900 ft of perennial streams, and 480 ft of intermittent streams (1380 ft total). Streams to be impacted are Elk Lick Creek, Cedar Creek, Severn Creek and tributaries to Elk Lick Creek, Cedar Creek, and the Kentucky River. [Clean Water Act]
T-2	All work performed under this certification shall adhere to the design and specifications set forth in the "Application for Construction Across or Along a Stream and/or Water Quality Certification," received January 19, 2012, and subsequent information. [Clean Water Act]
T-3	The applicant is responsible for preventing degradation of waters of the Commonwealth from soil erosion. An erosion and sedimentation control plan must be designed, implemented, and maintained in effective operating condition at all times during construction. [Clean Water Act]
T-4	The Division of Water reserves the right to modify or revoke this certification should it be determined that the activity is in noncompliance with any condition set forth in this certification. [Clean Water Act]
T-5	If construction does not commence within one year of the date of this letter, this certification will become void. A letter requesting a renewal should be submitted. [Clean Water Act]

Narrative Requirements:

Condition	Condition
T-6	Other permits may be required from the Division of Water for this project. If this project takes place within the floodplain, a permit may be required from the Surface Water Permits Branch. The contact person is Todd Powers. If this project will disturb one acre or more of land, or is part of a larger common plan of development or sale that will ultimately disturb one acre or more of land, a KPDES general storm water permit will be required from the Surface Water Permits Branch. The contact person is Allen Ingram. Both can be reached at 502/564-3410. [Clean Water Act]

STEVEN L. BESHEAR
GOVERNOR

LEONARD K. PETERS
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
200 FAIR OAKS LANE, 4TH FLOOR
FRANKFORT, KENTUCKY 40601
www.kentucky.gov

February 14, 2012

Jason Hurt
KY American Water Co
2300 Richmond Rd
Lexington, KY 40502

RE: KY American Water Co
AI # 1063, APE20120004
PWSID # 0340250-12-004
Northern Division Connection –
Phases 1, 2, 3 & 4
Owen County, KY

Dear Mr. Hurt:

We have reviewed the plans and specifications for the above referenced project. The plans include the construction of approximately 84,400 feet of 16-inch DIP water main, 19,175 feet of 6-inch PVC water main, Pump station with 3 pumps operating at 700 gpm with 300 feet TDH, BPS site 300,000 gallons Elevated storage tank and Owenton site 600,000 gallons Elevated storage tank. This is to advise that plans and specifications for the above referenced project are APPROVED with respect to sanitary features of design, as of this date with the requirements contained in the attached construction permit.

If you have any questions concerning this project, please contact Mr. Mohammed Mohiuddin at 502-564-8158 x4827.

Sincerely,

Mark Rasche

Mark Rasche, P.E.
Supervisor, Engineering Section
Water Infrastructure Branch
Division of Water

MR: MM
Enclosures
C: Strand Associates, Inc.
Owen County (Three Rivers District) Health Department
Division of Plumbing

RECEIVED
FEB 17 2012
STRAND ASSOCIATES, INC.®
LOUISVILLE, KY

STEVEN L. BESHEAR
GOVERNOR

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
200 FAIR OAKS LANE, 4TH FLOOR
FRANKFORT, KENTUCKY 40601
www.kentucky.gov

LEONARD K. PETERS
SECRETARY

STREAM CONSTRUCTION PERMIT

For Construction In Or Along A Stream

Issued to: **KY American Water Co**
Address: **2300 Richmond Rd**
Lexington, KY 40502

Permit expires on
February 15, 2013

Permit No. **19575**

In accordance with KRS 151.250 and KRS 151.260, the Energy and Environment Cabinet approves the application dated **January 19, 2012** for **installation of water main (Northern Division Connection, Phase 1) including 12 subfluvial stream crossings and 1 aerial stream crossing of Cedar Creek and unnamed tributaries beginning with coordinates 38.376977, -84.860021, and ending with coordinates 38.435482, -84.863103, and 3 subfluvial stream crossings of Elk Lick Creek and tributary beginning with coordinates 38.426232, -84.802982, and ending with coordinates 38.426464, -84.779431, in Owen County.** AI: 34054

There shall be no deviation from the plans and specifications submitted and hereby approved unless the proposed change shall first have been submitted to and approved in writing by the Cabinet. This approval is subject to the attached limitations. **Please read these limitations carefully!** If you are unable to adhere to these limitations for any reason, please contact this office prior to construction.

This permit is valid from the standpoint of stream obstruction only. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal and local agencies. Specifically if the project involves work in a stream, such as bank stabilization, dredging, relocation, or in designated wetlands, a 401 Water Quality Certification from the Division of Water will be required.

This permit is nontransferable and is not valid unless actual construction of this authorized work is begun prior to the expiration date noted above. Any violation of the Water Resources Act of 1966 as amended is subject to penalties as set forth in KRS 151.990.

If you have any questions regarding this permit, please call Mr. Jim Oerther at (502) 564-3410.

Issued February 15, 2012.

Todd Powers, P.E., Supervisor
Floodplain Management Section
Surface Water Permit Branch

TAP/JO/dg
pc: Florence Regional Office
Rick Morgan – Owen County Floodplain Coordinator
Mark Askin, PE
File

Stream Construction Permit

Kentucky American Northern Division
Facility Requirements
Permit Number:19576
Activity ID No.: APE20120002

STRC0000000012 (Water Main Extension) Installation of water main (Northern Division Connection, Phase 2) including four subfluvial stream crossings beginning in the floodplain of an unnamed tributary to Severn Creek at about stream mile 0.7, with coordinates 38.480871, -84.86508, and ending in the floodplain of an unnamed tributary to Severn Creek at about stream mile 0.6, with coordinates 38.453040, -84.853775, in Owen County.:

Submittal/Action Requirements:

Condition No.	Condition
S-1	Kentucky American Water must submit final construction report: Due within 90 days after completion of construction Kentucky American Water must notify in writing that the project has been completed in accordance with the approved plans and specifications. A Final Construction Report Form is enclosed. [401 KAR 4:060 Section 6]

Narrative Requirements:

Condition No.	Condition
T-1	This permit is issued from the standpoint of stream obstruction only and does not constitute certification of any other aspect of the proposed construction. The applicant is liable for any damage resulting from the construction, operation, or maintenance of this project. This permit has been issued under the provisions of KRS Chapter 151.250 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal and local agencies. [KRS 151.250]
T-2	A copy of this permit must be available at the construction site. [KRS 151.250]
T-3	Any work performed by or for Kentucky American Water that does not fully conform to the submitted application or drawings and the limitations set forth in this permit, is subject to partial or total removal and enforcement actions pursuant to KRS 151.280 as directed by the Kentucky Department for Environmental Protection. [KRS 151.280]
T-4	Any design changes or amendments to the approved plans must be submitted to the Division of Water and approved in writing prior to implementation. [KRS 151.250]
T-5	Since Owen County participates in the National Flood Insurance Program, a local floodplain permit must be obtained prior to beginning of construction. Upon completion of construction Kentucky American Water must contact the local permitting agency for final approval of the construction for compliance with the

Narrative Requirements:

Condition No.	Condition
T-6	The permittee must obtain a Water Quality Certification (or a determination that none is required) through the Division of Water, Water Quality Branch before beginning construction. Contact the Water Quality Certification Supervisor at (502) 564-3410. [KRS 224.16-050 & Clean Water Act Section 401]
T-7	Erosion prevention measures, sediment control measures, and other site management practices shall be designed, installed, and maintained in an effective operating condition to prevent migration of sediment off site. [KRS 224.70-110]
T-8	To avoid secondary adverse impacts, all materials used shall be stable and inert, free from pollutants and floatable objects, and shall meet all appropriate engineering standards. (Inert here means materials that are not chemically reactive and that will not rot or decompose, such as soil, rock, broken concrete or similar materials.). [401 KAR 4:060 Section 7]
T-9	All areas disturbed for pipeline installation within the base floodplain shall be restored as closely as possible to their original contours. [401 KAR 4:060]
T-10	All debris and excess material shall be removed for disposal outside of the base floodplain. [401 KAR 4:060]
T-11	Upon completion of construction all disturbed areas shall be seeded and mulched or otherwise stabilized to prevent erosion. [401 KAR 4:060]
T-12	The entry of mobile equipment into the stream channel shall be limited as much as reasonably possible to minimize degradation of the waters of the Commonwealth. [401 KAR 4:060]
T-13	Construction other than as authorized by this permit shall require written approval from the Division of Water. [401 KAR 4:060]
T-14	The existing stream flow shall be maintained at all times during construction using standard flow diversion or pump around methods. Cofferdams or other structures placed in the stream shall be removed immediately if adverse flooding conditions result or if a flooding event is imminent. [401 KAR 4:060 Section 4]
T-15	Kentucky American Water must obtain ownership or easement rights on all property on which this project will be located or on which related construction will occur prior to start of construction. [401 KAR 4:060]

TRANSPORTATION CABINET

Steven L. Beshear
Governor

Department of Highways District 6 Office
421 Buttermilk Pike
Covington, KY 41017
(859) 341-2700

Michael W. Hancock, P.E.
Secretary

April 2, 2012

KENTUCKY-AMERICAN WATER COMPANY
2300 RICHMOND ROAD - P.O. BOX 7500
LEXINGTON, KY 40502

SUBJECT: Owen County, -94-22-9.467
KY 22 (OWENTON-DRY RIDGE)
Permit Number 06-0165-12

Dear KENTUCKY-AMERICAN WATER COMPANY:

Your application for an encroachment permit has been approved by the Department of Highways. We are returning two copies of the approved permit so one may be kept in your record files. The other copy must be given to the party responsible for completing the project and must be kept at the jobsite at all times.

Please see that the work is done in strict conformity with the permit and any other applicable conditions (See Form TC99-21 and any other attached documents, conditions or specifications). The work should be completed no later than January 1, 2014. When the permitted work and any necessary restoration have been completed please notify this office by using the attached form which will serve as notification for final inspection.

If there are any questions regarding this permit, please do not hesitate to contact James Minckley at 859-341-2700 or fax number 859-341-6729.

Sincerely,

for

Robert Hans, P.E.
Chief District Engineer
Department of Highways
District 6 -Covington
421 Buttermilk Pike
Covington, KY 41017

NOTICE OF COMPLETION OF ENCROACHMENT PERMIT WORK

Please return this form to the District Office when work is completed and ready for final inspection.

Applicant Identification	Project Identification
Name: KENTUCKY-AMERICAN WATER COMPANY	Permit Number: 06-0165-12
Contact Person:	County: Owen
Address: 2300 RICHMOND ROAD - P.O. BOX	Route Number: 22
City: LEXINGTON	Road Name: OWENTON-DRY RIDGE
State: KY Zip: 40502	Milepoint: 9.467
Telephone: 606-269-2386	

I wish to notify the Department of Highways that the above mentioned permit work and any necessary right of way restoration have been completed and are ready for final inspection.

_____
Applicant

Please Return To: Department of Highways
District 6 Covington
421 Buttermilk Pike
Covington, Ky. 41017

Attention: James Minckley

Kentucky Transportation Cabinet
Department of Highways
Permits Branch

APPLICATION FOR ENCROACHMENT PERMIT

KEPTS No. 06-0165-12

Applicant/Permittee	
Name Kentucky American Water	
Address 2300 Richmond Road	
City Lexington	
State KY	Zip 40502
Phone 859-335-3415	
Cell Phone	
Work Phone 859-335-3415	
Email Address Jason.Hurt@amwater.com	

Permit Location	
Address	
City Owenton	
State KY	Zip 40359
County Owen	
Route No. KY 22 "Owenton - Dry Ridge"	
Mile Point 9.467	
GPS Coordinates	
X	
Y	

Access Control
☐ Fully Controlled Access
☐ Partially Controlled Access
☒ Control of Access by Permit

Type of Encroachment (KYTC)

DESCRIPTION OF WORK:

3,900 LF - 16" DI WATER MAIN AND APPURTENANCES (INCLUDING UNDER GROUND VALVES, FIRE HYDRANTS, ETC.) RUNNING PARALLEL TO KY 22 IN OWEN COUNTY FROM THE INTERSECTION OF US 127 & KY 22 TO STATION 58+50 ON THE PROJECT PLANS, SEE SHEETS18, 19, 20, & 21. Phase 2

APPROVED

APPROVED APR 02 2012

→ Phase 1 permit #'s US 127 - 06-01606-12
KY 607 - 06-0150-12

APPLICATION FOR ENCROACHMENT PERMIT

Applicant/Permittee agrees to the following terms and conditions:

1. The permit, including this application and all related and accompanying documents and drawings making up the permit, remains in effect and is binding upon the Applicant/Permittee, its successors and assigns, as long as the encroachment(s) exists and also until the permittee is finally relieved by the Department of Highways from all its obligations.

2. Applicant shall meet all requirements of the Clean Water Act if the project will disturb one acre or more, the applicant shall obtain a KPDES KYR10 Permit from the Kentucky Division of Water. All disturbed areas shall meet the requirements of the Department of Highway's Standard Specifications, Sections 212 and 213, as amended.

3. INDEMNITY:

- **A.** PERFORMANCE BOND: The permittee shall provide to the Department a performance bond, when required, in the amount of $ 30,000 (an amount equal to the estimated project cost as prepared and submitted by the applicant and approved by the Department) as a guarantee of conformance with the Department's Encroachment Permit requirements.
- **B.** PAYMENT BOND: At the discretion of the department, a payment bond will be required of the permittee to ensure payment of liquidated damages assessed to the permittee.
- **C.** LIABILITY INSURANCE: Liability insurance will be required of the permittee (in an amount approved by the department) to cover all liabilities associated with the encroachment.
- **D.** It shall be the responsibility of the permittee, its successors and assigns, to maintain all indemnities in full force and effect until the permittee is authorized to release the indemnity by the Department.

4. A copy of this application and all related documents making up the approved permit will be given to the applicant and shall be made readily available for review at the work site at all times.

5. Perpetual maintenance of the encroachment is the responsibility of the permittee, its successors and assigns, with the approval of the Department as required, unless otherwise stated.

6. Permittee, its successors and assigns, shall comply with and agrees to be bound by the requirements and terms of (a) this application and all related documents making up the approved permit, (b) by the Department's Permits Manual, and (c) by the Manual on Uniform Traffic Control Devices, both manuals as revised to and in effect on the date of issuance of the permit, all of which documents are made a part thereof by this reference. Compliance by the permittee, its successors and assigns, with subsequent revisions to applicable provisions of either manual or other policy of the Department may be made a condition of allowing the encroachment to persist under the permit.

7. Permittee agrees that this and any encroachment may be ordered removed by the Department at any time, and for any reason, upon thirty days written notice to the last known address of the applicant or to the address at the location of the encroachment. The permittee agrees that the cost of removing and of restoring the associated right-of-way is the responsibility of the permittee, its successors and assigns.

8. Permittee, its successors and assigns, agree that if the Department determines that motor vehicular safety deficiencies develop as a result of the installation or use of the encroachment, the permittee, its successors and assigns, shall provide and bear the expenses to adjust, relocate, or reconstruct the facilities, and/or add signs, auxiliary lanes, or other corrective measures reasonably deemed necessary by the Department within a reasonable time after receipt of a written notice of such deficiency. The period within which such adjustments, relocations, additions, modifications, and/or other corrective measures must be completed will be specified in the notice.

9. Where traffic signals are required as a condition of granting the requested permit or are thereafter required to correct motor vehicular safety deficiencies, as determined by the Department, the costs for signal equipment and installation(s) shall be borne by the permittee, its successors and assigns, and/or the Department in its reasonable discretion and only in accordance with the Department's current policy set forth in the Traffic Operations Manual and Permits Manual. Any modifications to the permittee's entrance necessary to accommodate signalization (including necessary easement(s) on private property) shall be the responsibility of the permittee, its successors and assigns, at no expense to the Department.

10. The requested encroachment shall not infringe on the frontage rights of an abutting owner without their written consent as hereinafter described. Each abutting owner shall express their consent, which shall be binding on their successors and assigns, by the submission of a notarized statement as follows, "I (we), _____, hereby consent to the granting of the permit requested by the applicant along Route_____, which permit does affect frontage rights along my (our) adjacent real property." By signature(s) _____, subscribed and sworn by_____, on this date_____. (This requirement does not apply to utility encroachments which serve the general public).

11. The permit, if approved, is subject to the agreement that it shall not interfere with any similar rights or permit(s) previously granted to any other party, except as otherwise provided by law.

APPLICATION FOR ENCROACHMENT PERMIT

12. Permittee shall include documentation which describes the facilities to be constructed. Permittee, its successors and assigns, agrees as a condition of the granting of the permit to construct and maintain any and all permitted facilities or other encroachments in strict accordance with the submitted and approved permit documentation and the policies and procedures of the Department. Permittee, its successors and assigns, shall not use facilities authorized herein in any manner contrary to that prescribed by the approved permit. Only normal usage as contemplated by the parties and by this application and routine maintenance are authorized by the permit.

13. Permittee, its successors and assigns, at all times from the date permitted work is commenced until such time as all permitted facilities or other encroachments are removed from the right-of-way and the right-of-way restored, **shall defend, protect, indemnify and save harmless** the Department from any and all liability claims and demands arising out of the work, encroachment, maintenance, or other undertaking by the permittee, its successors and assigns, related or undertaken pursuant to the granted permit, due to any claimed act or omission by the permittee, its servants, agents, employees, or contractors. This provision shall not inure to the benefit of any third party nor operate to enlarge any liability of the Department beyond that existing at common law or otherwise if this right to indemnity did not exist.

14. Upon a violation of any provision of the permit, or otherwise in its reasonable discretion, the Department may require additional action by the permittee, its successors and assigns, up to and including the removal of the encroachment and restoration of the right-of-way. In the event additional actions required by the Department under the permit are not undertaken as ordered and within a reasonable time, the Department may in its discretion cause those or other additional corrective actions to be undertaken and the Department may and shall recover the reasonable costs of those corrective actions from the permittee, its successors and assigns.

15. Permittee, its successors and assigns, shall use the encroachment premises in compliance with all requirements of federal law and regulation, including those imposed pursuant to Title VI of the Civil Right Act of 1964 (42 U.S.C. § 2000d et seq.) and the related regulations of the U.S. Department of Transportation in Title 49 C.F.R. Part 21, all as amended.

16. Permittee, its successors and assigns, agree that if the Department determines it is necessary for the facilities or other encroachment authorized by the permit to be removed, relocated or reconstructed in connection with the reconstruction, relocation or improvement of a highway, the Department may revoke permission for the encroachment to remain under the permit and may order its removal, relocation or reconstruction by the permittee, its successors and assigns, at the expense of the permittee, except where the Department is required by law to pay any or all of those costs.

17. Permittee agrees that the authorized permit is personal to the permittee and shall remain in effect until such time as (a) the permittee's rights to the adjoining real property to have benefitted from the requested encroachment have been relinquished, (b) until all permit obligations have been assumed by appropriate successors and assigns, and (c) unless and until a written release from permit obligations has been granted by the Department. The permit and its requirements shall also bind the real property to have benefitted from the requested encroachment to the extent permitted by law. The permit and the related encroachment become the responsibility of the successors and assigns of the permittee and the successors and assigns of each property owner benefitting from the encroachment, or the encroachment may not otherwise permissibly continue to be maintained on the right-of-way. (Does not apply to utility encroachments serving the general public.)

18. If work authorized by the permit is within a highway construction project in the construction phase, it shall be the responsibility of the permittee to make personal contact with the Department's Engineer on the project in order to coordinate all permitted work with the Department's prime contractor on the project.

19. This permit is not intended to, nor shall it, affect, alter or alleviate any requirement imposed upon the permittee, its successors and assigns, by any other agency.

20. Permittee, its successors and assigns, agrees to contain and maintain all dirt, mud, and other debris emanating from the encroachment away from the surrounding right-of-way and the travel way of the highway hereafter and at all times that its obligations under the permit remain in effect.

THE UNDERSIGNED APPLICANT(s)/PERMITTEE(s) (being duly authorized representative(s)/owner(s)) DO AGREE TO ALL TERMS AND CONDITIONS SET FORTH HEREIN.

Signature (of Applicant/Permittee)	Date
Joan M. Tutt	2/28/12

This is not a permit unless and until the permittee(s) receive an approved TC 99-1(B) from the KYTC. This application will become void if not approved by the cancellation date. The cancellation date will be one year from the date the permittee submits their application.

ENCROACHMENT PERMIT

KEPTS No.: 06-0165-12

Permittee: _____

Latitude: _____

Longitude: _____

Completion Date: _____

Coordinates provided on the TC 99-1(B) are the approved location for this permit.

Indemnities		
Type	Amount Required	Tracking Number
Performance Bond	30,000	
Payment Bond		
Liability Insurance		

This permit has been:

APPROVED ☒ **DENIED** ☐

RICHARD T DAVIS — TURN-ES

NAME **TITLE**

3/29/12

SIGNATURE **DATE**

The TC 99-1(B), including the application TC-99 1(A) and all related and accompanying documents and drawings make up the permit. It is not a permit unless both the TC 99-1(A) and TC 99-1(B) are both present.

06-0165-12

IMPORTANT NOTICE

Federal law requires that High visibility Class 2 or Class 3 retroreflective safety apparel that meets ANSI/ISEA 107-2004 Standards shall be worn at all times by anyone working within the KYTC R/W limits.

Class 3 apparel is required for flaggers after dark.

If any questions, please contact James Minckley at (859) 341-2700.

06-0165-12

IMPORTANT NOTICE

Federal law requires that traffic control shall be implemented in accordance with MUTCD Standards and KYTC Specifications under the supervision of a Work Zone Traffic Control Supervisor.

A Work Zone Traffic Control Technician shall be available on the jobsite to ensure that the work zone is in compliance with the applicable standards.

If any questions, please contact James Minckley at (859) 341-2700.

ENCROACHMENT PERMIT GENERAL NOTES & SPECIFICATIONS

Permit No. 06-0165-12

I. SAFETY

A. General Provisions

☒ All signs and control of traffic shall be in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways, latest edition, Part VI, and safety requirements shall comply with the Permits Manual.

☒ All work necessary in shoulder or ditch line areas of a state highway shall be scheduled to be promptly completed so that hazards adjacent to the traveled way are kept to an absolute minimum.

☒ No more than one (1) traveled-lane shall be blocked or obstructed during normal working hours. All signs and flaggers during lane closure shall conform to the Manual on Uniform Traffic Control Devices.

☒ When necessary to block one (1) traveled-lane of a state highway, the normal working hours shall be as directed by the Department. No lanes shall be blocked or obstructed during adverse weather conditions (rain, snow, fog, etc.) without specific permission from the Department. Working hours shall be between 8:00 am and 4:30 pm

☒ The traveled-way and shoulders shall be kept clear of mud and other construction debris at all times during construction of the permitted facility.

☒ No nonconstruction equipment or vehicles or office trailers shall be allowed on the right of way during working hours.

☒ The right of way shall be left free and clear of equipment, material, and vehicles during non-working hours.

B. Explosives

☒ No explosive devices or explosive material shall be used within state right of way without proper license and approval of the Kentucky Department of Mines and Minerals, Explosive Division.

C. Other Safety Requirements

☐

II. UTILITIES * Applies to Fully Controlled Access Highways ONLY

☐ *All work necessary within the right of way shall be performed behind a temporary fence erected prior to a boring operation.

☐ *The temporary woven wire fence shall be removed immediately upon completion of work on the right of way, and the control of access immediately restored to original condition, in accordance with applicable Kentucky Department of Highways Standard Drawings.

☐ *All vents, valves, manholes, etc., shall be located outside of the right-of-way.

☐ *Encasement pipe shall extend from right-of-way line to right-of-way line and shall be one continuous run of pipe. The encasement pipe shall be welded at all joints.

☒ The boring pit and tail ditch shall extend past the existing toe of slope or bottom of ditch line and shall be a minimum of 42 inches deep.

II. UTILITIES (Continued)

☒ Encasement pipe pipe shall conform to current standards for highway crossings in accordance with the Permits Manual.

☒ Parallel lines shall be constructed between back slope of ditch line and right-of-way line and shall have a minimum of ~~30 inch~~ 36" cover above top of pipe or conduit.

☐ All pavement cuts shall be restored per Kentucky Transportation Cabinet form TC 99-13.

☐ Aerial crossing of this utility line shall have a minimum clearance of _____ feet from the high point of the roadway to the low point of the line (calculated at the coefficient for expansion of 120 degrees Farenheit).

☐ The 30-foot clear zone requirement shall be met to the extent possible in accordance with the Permits Manual.

☒ Special requirements:

Any excavation within 5 feet of edge of pavement will require flowable fill as backfill

III. GENERAL

A. OSHA

☒ Kentucky Occupational Safety and Health Standards for the construction industry, which has the effect of law, states in part: (Page 52, 1926.651, Specific Excavation Requirements) "Prior to opening an excavation, effort shall be made to determine whether underground installations, (sewer, telephone, water, fuel, electric lines, etc.) will be encountered, and if so, where such underground installations are located. When the excavation approaches the estimated location of such an installation, the exact location shall be determined, and when it is uncovered, proper supports shall be provided for the existing installation. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation."

B. Archaeological

☒ Whenever materials of an archaeological nature are discovered during the course of construction work or maintenance operations, contact shall be made immediately with the Division of Environmental Analysis, which maintains an archaeologist on staff, or with the Office of the State Archaeologist located at the University of Kentucky. Following this consultation, further action shall be decided on a case-by-case basis by the State Highway Engineer or the Transportation Planning Engineer or their designated representative.

C. Utilities in the Work Areas

☒ The permittee shall be responsible for any damage to existing utilities, and any utility modifications or relocations within state right of way necessary, as determined by the Department or by the owner of the utility, shall be at the expense of the permittee and subject to the approval of the Department.

☒ All existing manholes and valve boxes shall be adjusted to be flush with finished grade.

D. Environmental

☒ If the activity to which this permit relates disturbs one acre or more of land, you must obtain a KPDES KYR10 permit.

Websites

http://www.water.ky.gov/permitting/wastewaterpermitting/KPDES/storm/

Inspectors for KPDES KYR10 at www.KEPSC.org

IV. RIGHT OF WAY RESTORATION

☒ All disturbed portions of the right of way shall be restored to grass as per Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition). A satisfactory turf, as determined by the Department, shall be established by the permittee prior to release of indemnity. Sodding or seeding shall be as follows:

Lawn or High Maintenance Situation	70% Lawn Fescue (e.g., variety - Falcon) 30% Bluegrass **or** 70% Lawn Rye (e.g., variety - Derby) 30% Bluegrass
Right of Way Lawn Maintenance Situation	70% KY 31 Fescue 30% Perennial Rye Grass **or** 100% KY Fescue

☒ Two tons of clean straw mulch per acre of seeding.

☒ Prior to seeding, the ground shall be prepared in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

☐ Substitutes for sod such as artificial turf, rocked mulch, or paved areas may be acceptable if they are aesthetically pleasing.

☐ All ditch-flow lines and all ditch-side slopes shall be sodded.

☐ Existing concrete right of way markers shall not be disturbed, but if damaged in any way, they shall be entirely replaced by the permittee, with new concrete markers to match the original markers, in accordance with Kentucky Department of Highways Standard Drawings. Markers that are entirely removed shall be re-established in the proper locations by the permittee and to the satisfaction of the Department.

☐ Other right of way restoration requirements are as follows:

V. DRAINAGE

☐ All pipe shall be laid in a straight alignment, to proper grades, and with all materials and methods of installation including bedding and joint seating in accordance with Department Standard Specifications for Road and Bridge Construction (latest edition). Pipe shall not be covered until inspected by the Department and express permission obtained to make backfill.

☐ All gutter lines at the base of new curbs shall be on continuous grades, and pockets of water along with curbs or in entrance areas or other paved areas within the right of way shall not be acceptable.

☐ All drainage structures and appurtenances (manholes, catch basins, curbing, inlet basins, etc.) shall conform to Department specifications and shall be constructed in accordance with the Department Standard Drawings. Type required:

VI. Paving

☐ No bituminous pavement shall be installed within the right of way between November 15 and April 1, nor when the temperature is below 40 degrees Farenheit, without the express consent of the Department. No bituminous pavement shall be installed when the underlying course is wet.

☐ Paving within the right of way shall be as follows:

☐ Base (Type) _____ (Thickness) _____

☐ Surface Base (Type) _____ (Thickness) _____

☐ Finished Surface (Type) _____ (Thickness) _____

☐ Existing pavement and shoulder material shall be removed to acommodate the above paving specifications.

☐ The finished surface of all new pavement within the right of way shall be true to the required slope and grade, uniform in density and texture, free of irregularities, and equivalent in riding qualities to the adjacent highway pavement or as determined by the Department of Highways.

☐ All materials and methods of construction, including base and subgrade preparation, shall be in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

☐ 24 hours notice to the Department is required prior to beginning paving operations.

Phone: _____ Name: _____

☐ To ensure proper surface drainage, the new pavement shall be flush with the edge of existing highway pavement and shall slope away from the existing edge of the pavement as specified in drawings.

☐ Existing edge of pavement shall be saw-cut to provide a straight and uniform joint for new pavement. An approved joint sealer, in accordance with Kentucky Department of Highways Standard Specifications (latest edition), shall be applied between new and existing pavements.

VII. SIDEWALKS SPECIFICATIONS *This dimension should be equal to the width of the sidewalk.

A. New Sidewalks

☐ Sidewalks shall be constructed of Class A concrete (3,500 p.s.i. test), shall be *_____ feet in width, 6 inches in thickness across the bituminous entrance, and 4 inches in thickness across the remaining sections.

☐ Sidewalks shall have tooled joints not less than 1 inch in depth at four foot intervals*, and 1/2 premolded expansion joints extending entirely through the sidewalk at intervals not to exceed 50 feet.

☐ All materials and methods of construction, including curing, shall be in accordance with the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

B. Existing Sidewalks

☒ **(Applicable if existing sidewalks are being relocated)** Use of the sidewalk shall not be blocked or obstructed, and a usable walkway shall be maintained across the construction area at all times.

☒ All damaged sections of the sidewalks shall be entirely replaced to match existing sections.

VIII. DENSE GRADED SHOULDERS

☐ Any existing dense-graded aggregate shoulders in the entire frontage within the construction area, which have been disturbed or damaged or on which dirt has been placed or mud has been deposited or tracked, shall be restored to original condition by removal of all contaminated material and replaced to proper grade with new dense-graded aggregate.

☐ All new aggregate shoulders as specified in the plan shall consist of 5 inches of compacted dense-graded aggregate, 2½ pounds per square yard of calcium chloride.

☐ All dense-graded aggregate shoulders shall slope away from the new edge of pavement at the rate of 3/4 inch per foot.

IX. CURBING

A. Bituminous Curbs

☐ Bituminous concrete curbs shall be given a paint coat of asphalt emulsion.

☐ The surface under the bituminous concrete curb shall be tacked with asphalt emulsion.

☐ All bituminous concrete curbs shall be constructed of a Class I bituminous concrete mixture as specified by official Department of Highways specifications.

☐ All bituminous curbs shall be rolled curb, with a minimum base width of 8 inches and a minimum height of _____ inches. The top of the curb shall be constructed in such a manner as to guarantee a uniform rolled effect throughout the entire run.

B. Concrete Curbs

☐ All curbs or curb and gutter shall be constructed of Class A concrete (3,500 p.s.i. test) and shall be uniform in height, width, and alignment, true to grade, and satisfactory in finish and appearance as determined by the Department. All materials and methods of construction, including curing, shall be in accordance with Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

☐ All concrete curbs shall be 6 inches in width, extend _____ inches above finished grade and 12 inches below finished grade, with all visible edge rounded to 1/2 inch radii.

☐ All concrete curbs shall have expansion joints constructed at intervals of not more than 30 feet, and 1/2 inch premolded expansion joint material (cut to conform to the curb or to the curb and gutter section) shall be used in each expansion joint.

☐ The last _____ feet of all concrete curbs are to be tapered down to finished grade.

X. RIGHT-OF-WAY FENCE REPLACEMENT

☐ The replacement fence shall be a height of at least 48 inches and shall be of sufficient density to contain all animals (if applicable).

☐ The replacement fence shall be a minimum of 1 foot and a maximum of 2 feet outside the right-of-way line.

☐ The fence materials and design shall meet accepted industry standards and be treated as paintable.

☐ The permittee shall be required to maintain the fence in a high state of repair.

☐ The existing fence shall be removed by permittee and stored at the Department's maintenance storage yard for future reuse by the Department.

☐ The control of access shall not be diminished as a result of replacement of the fence.

☐ Miscellaneous:

NOTICE TO PERMITTEE

THE PERMITTEE AGREES THAT ALL WORK WITHIN THE EXISTING RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH THE PLANS AS APPROVED AND PERMITTED BY AN ENCROACHMENT PERMIT. ANY CHANGES OR VARIANCES MADE AT THE TIME OF CONSTRUCTION WITHOUT WRITTEN APPROVAL FROM THE DEPARTMENT OF HIGHWAYS SHALL BE REMOVED BY THE PERMITTEE AT NO EXPENSE TO THE DEPARTMENT OF HIGHWAYS AND SHALL BE REDONE BY THE PERMITTEE TO CONFORM WITH THE APPROVED PLANS.

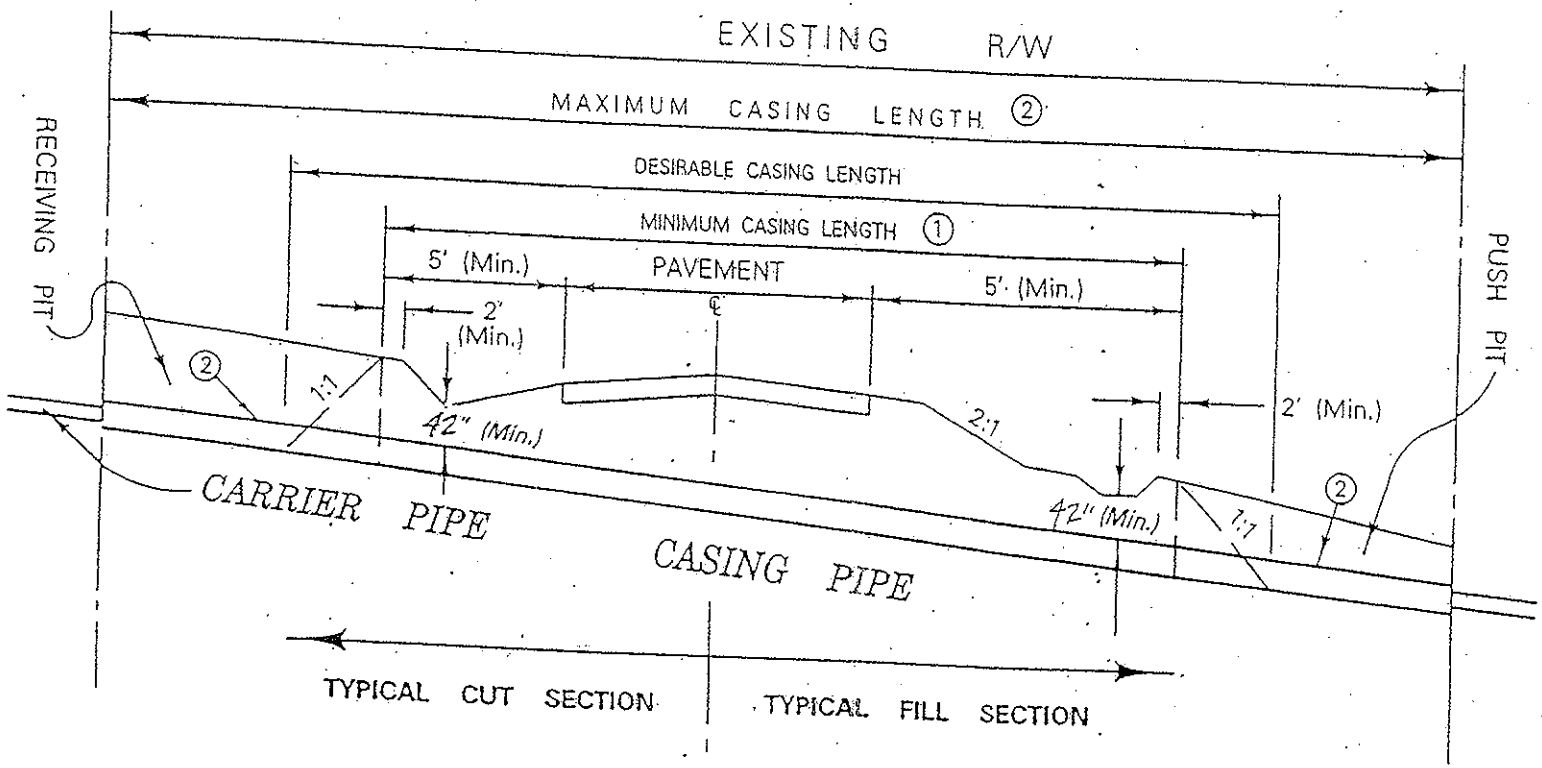
COMMONWEALTH OF KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

TYPICAL HIGHWAY BORING CROSSING DETAIL
PROPOSED UNDERGROUND CROSSING FOR EXISTING ROADWAY

① MAY REQUIRE VERTICAL SHEETING.

② MAY BE REQUIRED UNDER CERTAIN CONDITIONS.

Permit No. 06-0165-12
Route No. 22
Pavement Width ____



1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.
4. The Boring Pit and Tail Ditch shall not extend past the existing toe of slope or bottom of ditch line (from the right-of-way).
5. Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual.
6. Control of Access Projects, Encasement pipe shall extend from Right of Way to Right of Way and shall be one continuous run of pipe.

TRANSPORTATION CABINET

Steven L. Beshear
Governor

Department of Highways District 6 Office
421 Buttermilk Pike
Covington, KY 41017
(859) 341-2700

Michael W. Hancock, P.E.
Secretary

April 2, 2012

KENTUCKY-AMERICAN WATER COMPANY
2300 RICHMOND ROAD - P.O. BOX 7500
LEXINGTON, KY 40502

SUBJECT: Owen County, -94-607-4.114
KY 607 (CEDAR CREEK END)
Permit Number 06-0150-12

Dear KENTUCKY-AMERICAN WATER COMPANY:

Your application for an encroachment permit has been approved by the Department of Highways. We are returning two copies of the approved permit so one may be kept in your record files. The other copy must be given to the party responsible for completing the project and must be kept at the jobsite at all times.

Please see that the work is done in strict conformity with the permit and any other applicable conditions (See Form TC99-21 and any other attached documents, conditions or specifications). The work should be completed no later than January 1, 2014. When the permitted work and any necessary restoration have been completed please notify this office by using the attached form which will serve as notification for final inspection.

If there are any questions regarding this permit, please do not hesitate to contact James Minckley at 859-341-2700 or fax number 859-341-6729.

Sincerely,

for

Robert Hans, P.E.
Chief District Engineer
Department of Highways
District 6 -Covington
421 Buttermilk Pike
Covington, KY 41017

NOTICE OF COMPLETION OF ENCROACHMENT PERMIT WORK

Please return this form to the District Office when work is completed and ready for final inspection.

Applicant Identification	Project Identification
Name: KENTUCKY-AMERICAN WATER COMPANY	Permit Number: 06-0150-12
Contact Person:	County: Owen
Address: 2300 RICHMOND ROAD - P.O. BOX	Route Number: 607
City: LEXINGTON	Road Name: CEDAR CREEK END
State: KY Zip: 40502	Milepoint: 4.114
Telephone: 606-269-2386	

I wish to notify the Department of Highways that the above mentioned permit work and any necessary right of way restoration have been completed and are ready for final inspection.

Applicant

Please Return To: Department of Highways
District 6 Covington
421 Buttermilk Pike
Covington, Ky. 41017

Attention: James Minckley

Kentucky Transportation Cabinet
Department of Highways
Permits Branch

APPLICATION FOR ENCROACHMENT PERMIT

KEPTS No. 06-0150-12

Applicant/Permittee	
Name Kentucky American Water	
Address 2300 Richmond Road	
City Lexington	
State KY	Zip 40502
Phone 859-335-3415	
Cell Phone	
Work Phone 859-335-3415	
Email Address Jason.Hurt@amwater.com	

Permit Location	
Address	
City Owenton	
State KY	Zip 40359
County Owen	
Route No. KY 607	
Mile Point 4.114 - "Cedar Creek End"	
GPS Coordinates	
X	
Y	

Access Control

- ☐ Fully Controlled Access
- ☐ Partially Controlled Access
- ☒ Control of Access by Permit

Type of Encroachment (KYTC)

APPROVED
APPROVED APR 02 2012

DESCRIPTION OF WORK:

KY 607: 30 LF - 8" PVC WATER MAIN CROSSING WITH 30 LF - 10" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 10+05 TO STATION 10+35, SEE SHEET 20. 40 LF - 8" PVC WATER MAIN CROSSING WITH 40 LF - 10" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 32+05 TO STATION 32+45, SEE SHEET 20. 30 LF - 8" PVC WATER MAIN CROSSING WITH 30 LF - 10" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 104+80 TO STATION 105+00, SEE SHEET 21. 30 LF - 8" PVC WATER MAIN CROSSING WITH 30 LF - 10" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 123+80 TO STATION 124+10, SEE SHEET 22. 35 LF - 8" PVC WATER MAIN CROSSING WITH 35 LF - 10" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 138+15 TO STATION 138+50, SEE SHEET 22. 30 LF - 8" PVC WATER MAIN CROSSING WITH 30 LF - 10" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 168+20 TO STATION 168+50, SEE SHEET 23. 630 LF - 8" PVC WATER MAIN RUNNING PARALLEL TO KY 607 FROM STATION 69+20 TO 72+50 AND 84+50 TO 87+50 ON THE PROJECT PLANS, SEE SHEETS 21, Phase 1

*40 LF - 16" DI WATER MAIN CROSSING WITH 40 LF - 24" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 175+00 to STATION 175+40, SEE SHEET 9 - PHASE 1

* US127 Work → Permit # 06-0166-12

* Phase 2 permit # - 06-0165-12

06-0150-12

APPLICATION FOR ENCROACHMENT PERMIT

Applicant/Permittee agrees to the following terms and conditions:

1. The permit, including this application and all related and accompanying documents and drawings making up the permit, remains in effect and is binding upon the Applicant/Permittee, its successors and assigns, as long as the encroachment(s) exists and also until the permittee is finally relieved by the Department of Highways from all its obligations.

2. Applicant shall meet all requirements of the Clean Water Act if the project will disturb one acre or more, the applicant shall obtain a KPDES KYR10 Permit from the Kentucky Division of Water. All disturbed areas shall meet the requirements of the Department of Highway's Standard Specifications, Sections 212 and 213, as amended.

3. INDEMNITY:

- **A.** PERFORMANCE BOND: The permittee shall provide to the Department a performance bond, when required, in the amount of $ 80,000 (an amount equal to the estimated project cost as prepared and submitted by the applicant and approved by the Department) as a guarantee of conformance with the Department's Encroachment Permit requirements.
- **B.** PAYMENT BOND: At the discretion of the department, a payment bond will be required of the permittee to ensure payment of liquidated damages assessed to the permittee.
- **C.** LIABILITY INSURANCE: Liability insurance will be required of the permittee (in an amount approved by the department) to cover all liabilities associated with the encroachment.
- **D.** It shall be the responsibility of the permittee, its successors and assigns, to maintain all indemnities in full force and effect until the permittee is authorized to release the indemnity by the Department.

4. A copy of this application and all related documents making up the approved permit will be given to the applicant and shall be made readily available for review at the work site at all times.

5. Perpetual maintenance of the encroachment is the responsibility of the permittee, its successors and assigns, with the approval of the Department as required, unless otherwise stated.

6. Permittee, its successors and assigns, shall comply with and agrees to be bound by the requirements and terms of (a) this application and all related documents making up the approved permit, (b) by the Department's Permits Manual, and (c) by the Manual on Uniform Traffic Control Devices, both manuals as revised to and in effect on the date of issuance of the permit, all of which documents are made a part thereof by this reference. Compliance by the permittee, its successors and assigns, with subsequent revisions to applicable provisions of either manual or other policy of the Department may be made a condition of allowing the encroachment to persist under the permit.

7. Permittee agrees that this and any encroachment may be ordered removed by the Department at any time, and for any reason, upon thirty days written notice to the last known address of the applicant or to the address at the location of the encroachment. The permittee agrees that the cost of removing and of restoring the associated right-of-way is the responsibility of the permittee, its successors and assigns.

8. Permittee, its successors and assigns, agree that if the Department determines that motor vehicular safety deficiencies develop as a result of the installation or use of the encroachment, the permittee, its successors and assigns, shall provide and bear the expenses to adjust, relocate, or reconstruct the facilities, and/or add signs, auxiliary lanes, or other corrective measures reasonably deemed necessary by the Department within a reasonable time after receipt of a written notice of such deficiency. The period within which such adjustments, relocations, additions, modifications, and/or other corrective measures must be completed will be specified in the notice.

9. Where traffic signals are required as a condition of granting the requested permit or are thereafter required to correct motor vehicular safety deficiencies, as determined by the Department, the costs for signal equipment and installation(s) shall be borne by the permittee, its successors and assigns, and/or the Department in its reasonable discretion and only in accordance with the Department's current policy set forth in the Traffic Operations Manual and Permits Manual. Any modifications to the permittee's entrance necessary to accommodate signalization (including necessary easement(s) on private property) shall be the responsibility of the permittee, its successors and assigns, at no expense to the Department.

10. The requested encroachment shall not infringe on the frontage rights of an abutting owner without their written consent as hereinafter described. Each abutting owner shall express their consent, which shall be binding on their successors and assigns, by the submission of a notarized statement as follows, "I (we), _____, hereby consent to the granting of the permit requested by the applicant along Route_____, which permit does affect frontage rights along my (our) adjacent real property." By signature(s) _____, subscribed and sworn by_____, on this date_____. (This requirement does not apply to utility encroachments which serve the general public).

11. The permit, if approved, is subject to the agreement that it shall not interfere with any similar rights or permit(s) previously granted to any other party, except as otherwise provided by law.

06-0150-12

APPLICATION FOR ENCROACHMENT PERMIT

12. Permittee shall include documentation which describes the facilities to be constructed. Permittee, its successors and assigns, agrees as a condition of the granting of the permit to construct and maintain any and all permitted facilities or other encroachments in strict accordance with the submitted and approved permit documentation and the policies and procedures of the Department. Permittee, its successors and assigns, shall not use facilities authorized herein in any manner contrary to that prescribed by the approved permit. Only normal usage as contemplated by the parties and by this application and routine maintenance are authorized by the permit.

13. Permittee, its successors and assigns, at all times from the date permitted work is commenced until such time as all permitted facilities or other encroachments are removed from the right-of-way and the right-of-way restored, **shall defend, protect, indemnify and save harmless** the Department from any and all liability claims and demands arising out of the work, encroachment, maintenance, or other undertaking by the permittee, its successors and assigns, related or undertaken pursuant to the granted permit, due to any claimed act or omission by the permittee, its servants, agents, employees, or contractors. This provision shall not inure to the benefit of any third party nor operate to enlarge any liability of the Department beyond that existing at common law or otherwise if this right to indemnity did not exist.

14. Upon a violation of any provision of the permit, or otherwise in its reasonable discretion, the Department may require additional action by the permittee, its successors and assigns, up to and including the removal of the encroachment and restoration of the right-of-way. In the event additional actions required by the Department under the permit are not undertaken as ordered and within a reasonable time, the Department may in its discretion cause those or other additional corrective actions to be undertaken and the Department may and shall recover the reasonable costs of those corrective actions from the permittee, its successors and assigns.

15. Permittee, its successors and assigns, shall use the encroachment premises in compliance with all requirements of federal law and regulation, including those imposed pursuant to Title VI of the Civil Right Act of 1964 (42 U.S.C. § 2000d et seq.) and the related regulations of the U.S. Department of Transportation in Title 49 C.F.R. Part 21, all as amended.

16. Permittee, its successors and assigns, agree that if the Department determines it is necessary for the facilities or other encroachment authorized by the permit to be removed, relocated or reconstructed in connection with the reconstruction, relocation or improvement of a highway, the Department may revoke permission for the encroachment to remain under the permit and may order its removal, relocation or reconstruction by the permittee, its successors and assigns, at the expense of the permittee, except where the Department is required by law to pay any or all of those costs.

17. Permittee agrees that the authorized permit is personal to the permittee and shall remain in effect until such time as (a) the permittee's rights to the adjoining real property to have benefitted from the requested encroachment have been relinquished, (b) until all permit obligations have been assumed by appropriate successors and assigns, and (c) unless and until a written release from permit obligations has been granted by the Department. The permit and its requirements shall also bind the real property to have benefitted from the requested encroachment to the extent permitted by law. The permit and the related encroachment become the responsibility of the successors and assigns of the permittee and the successors and assigns of each property owner benefitting from the encroachment, or the encroachment may not otherwise permissibly continue to be maintained on the right-of-way. (Does not apply to utility encroachments serving the general public.)

18. If work authorized by the permit is within a highway construction project in the construction phase, it shall be the responsibility of the permittee to make personal contact with the Department's Engineer on the project in order to coordinate all permitted work with the Department's prime contractor on the project.

19. This permit is not intended to, nor shall it, affect, alter or alleviate any requirement imposed upon the permittee, its successors and assigns, by any other agency.

20. Permittee, its successors and assigns, agrees to contain and maintain all dirt, mud, and other debris emanating from the encroachment away from the surrounding right-of-way and the travel way of the highway hereafter and at all times that its obligations under the permit remain in effect.

THE UNDERSIGNED APPLICANT(s)/PERMITTEE(s) (being duly authorized representative(s)/owner(s)) DO AGREE TO ALL TERMS AND CONDITIONS SET FORTH HEREIN.

Signature (of Applicant/Permittee)	Date
Jason M. Tate	2/28/12

This is not a permit unless and until the permittee(s) receive an approved TC 99-1(B) from the KYTC. This application will become void if not approved by the cancellation date. The cancellation date will be one year from the date the permittee submits their application.

Kentucky Transportation Cabinet
Department of Highways
Permits Branch

ENCROACHMENT PERMIT

KEPTS No.: 06-0150-12

Permittee: Kentucky American Water

Latitude: _____

Longitude: _____

Completion Date: _____

Coordinates provided on the TC 99-1(B) are the approved location for this permit.

Indemnities		
Type	Amount Required	Tracking Number
Performance Bond	80,000	
Payment Bond		
Liability Insurance		

This permit has been: KM Orig

APPROVED ☒ **DENIED** ☐

Richard T Davis — TERM - ENG. SUPPORT

NAME **TITLE**

SIGNATURE 3/29/12 **DATE**

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06-0150-12

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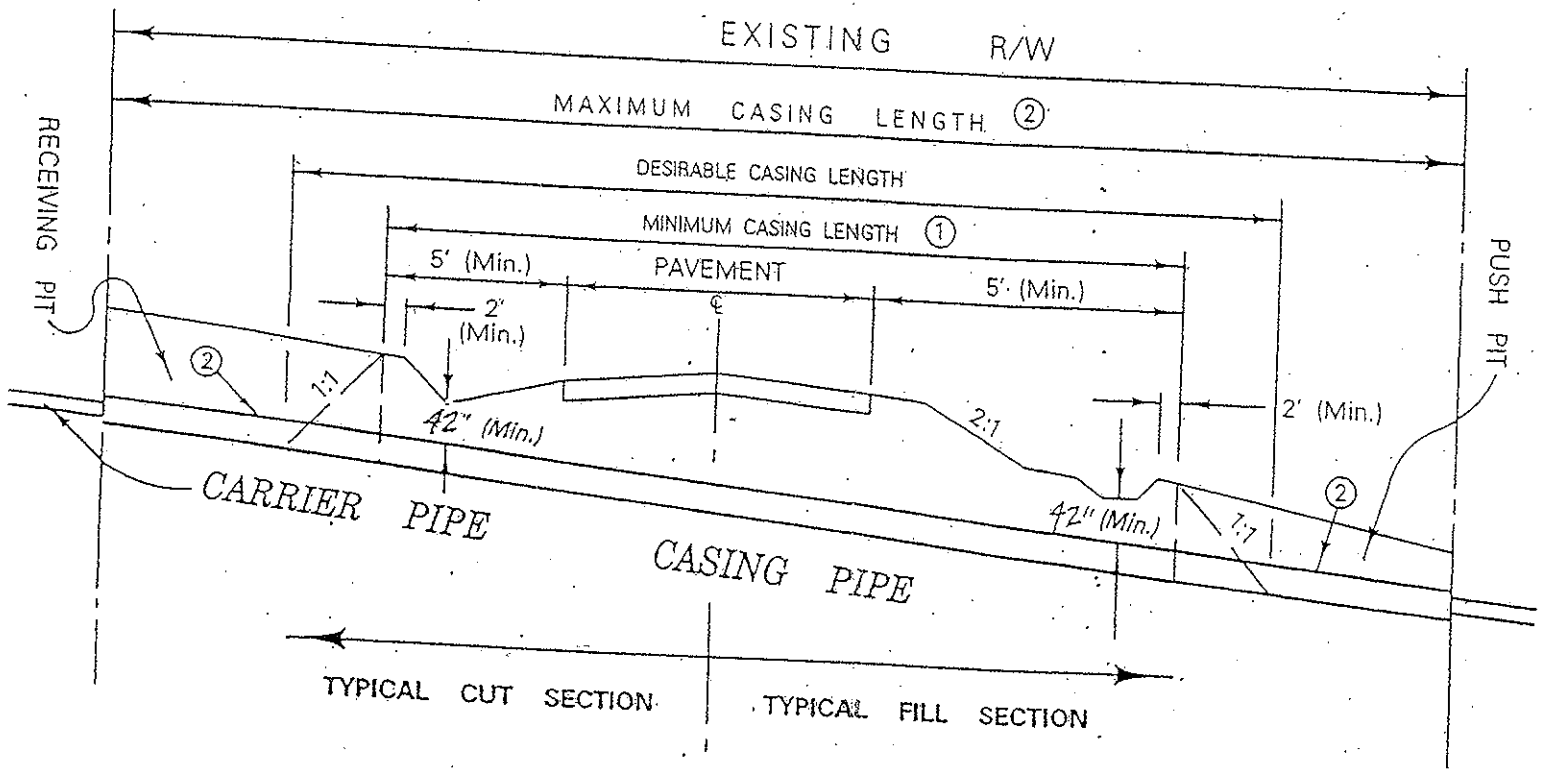
COMMONWEALTH OF KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

TYPICAL HIGHWAY BORING CROSSING DETAIL
PROPOSED UNDERGROUND CROSSING FOR EXISTING ROADWAY

Permit No: 06-0150-12
Route No. 607
Pavement Width ____

① MAY REQUIRE VERTICAL SHEETING.
② MAY BE REQUIRED UNDER CERTAIN CONDITIONS.



1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.
4. The Boring Pit and Tail Ditch shall not extend past the existing toe of slope or bottom of ditch line (from the right-of-way).
5. Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual.
6. Control of Access Projects, Encasement pipe shall extend from Right of Way to Right of Way and shall be one continuous run of pipe.

ENCROACHMENT PERMIT GENERAL NOTES & SPECIFICATIONS

Permit No. 06-0150-12

I. SAFETY

A. General Provisions

☒ All signs and control of traffic shall be in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways, latest edition, Part VI, and safety requirements shall comply with the Permits Manual.

☒ All work necessary in shoulder or ditch line areas of a state highway shall be scheduled to be promptly completed so that hazards adjacent to the traveled way are kept to an absolute minimum.

☒ No more than one (1) traveled-lane shall be blocked or obstructed during normal working hours. All signs and flaggers during lane closure shall conform to the Manual on Uniform Traffic Control Devices.

☒ When necessary to block one (1) traveled-lane of a state highway, the normal working hours shall be as directed by the Department. No lanes shall be blocked or obstructed during adverse weather conditions (rain, snow, fog, etc.) without specific permission from the Department. Working hours shall be between 8:00 am and 4:30 pm

☒ The traveled-way and shoulders shall be kept clear of mud and other construction debris at all times during construction of the permitted facility.

☒ No nonconstruction equipment or vehicles or office trailers shall be allowed on the right of way during working hours.

☒ The right of way shall be left free and clear of equipment, material, and vehicles during non-working hours.

B. Explosives

☒ No explosive devices or explosive material shall be used within state right of way without proper license and approval of the Kentucky Department of Mines and Minerals, Explosive Division.

C. Other Safety Requirements

☐

II. UTILITIES - Applies to Fully Controlled Access Highways ONLY

☐ *All work necessary within the right of way shall be performed behind a temporary fence erected prior to a boring operation.

☐ *The temporary woven wire fence shall be removed immediately upon completion of work on the right of way, and the control of access immediately restored to original condition, in accordance with applicable Kentucky Department of Highways Standard Drawings.

☐ *All vents, valves, manholes, etc., shall be located outside of the right-of-way.

☐ *Encasement pipe shall extend from right-of-way line to right-of-way line and shall be one continuous run of pipe. The encasement pipe shall be welded at all joints.

☒ The boring pit and tail ditch shall extend past the existing toe of slope or bottom of ditch line and shall be a minimum of 42 inches deep.

II. UTILITIES (Continued)

☒ Encasement pipe pipe shall conform to current standards for highway crossings in accordance with the Permits Manual.

☒ Parallel lines shall be constructed between back slope of ditch line and right-of-way line and shall have a minimum of ~~30-inch~~ 36" cover above top of pipe or conduit.

☐ All pavement cuts shall be restored per Kentucky Transportation Cabinet form TC 99-13.

☐ Aerial crossing of this utility line shall have a minimum clearance of _____ feet from the high point of the roadway to the low point of the line (calculated at the coefficient for expansion of 120 degrees Farenheit).

☐ The 30-foot clear zone requirement shall be met to the extent possible in accordance with the Permits Manual.

☒ Special requirements:

Any excavation within 5 feet of edge of pavement will require flowable fill as backfill.

III. GENERAL

A. OSHA

☒ Kentucky Occupational Safety and Health Standards for the construction industry, which has the effect of law, states in part: (Page 52, 1926.651, Specific Excavation Requirements) "Prior to opening an excavation, effort shall be made to determine whether underground installations, (sewer, telephone, water, fuel, electric lines, etc.) will be encountered, and if so, where such underground installations are located. When the excavation approaches the estimated location of such an installation, the exact location shall be determined, and when it is uncovered, proper supports shall be provided for the existing installation. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation."

B. Archaeological

☒ Whenever materials of an archaeological nature are discovered during the course of construction work or maintenance operations, contact shall be made immediately with the Division of Environmental Analysis, which maintains an archaeologist on staff, or with the Office of the State Archaeologist located at the University of Kentucky. Following this consultation, further action shall be decided on a case-by-case basis by the State Highway Engineer or the Transportation Planning Engineer or their designated representative.

C. Utilities in the Work Areas

☒ The permittee shall be responsible for any damage to existing utilities, and any utility modifications or relocations within state right of way necessary, as determined by the Department or by the owner of the utility, shall be at the expense of the permittee and subject to the approval of the Department.

☒ All existing manholes and valve boxes shall be adjusted to be flush with finished grade.

D. Environmental

☒ If the activity to which this permit relates disturbs one acre or more of land, you must obtain a KPDES KYR10 permit.

Websites

http://www.water.ky.gov/permitting/wastewaterpermitting/KPDES/storm/

Inspectors for KPDES KYR10 at www.KEPSC.org

IV. RIGHT OF WAY RESTORATION

☒ All disturbed portions of the right of way shall be restored to grass as per Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition). A satisfactory turf, as determined by the Department, shall be established by the permittee prior to release of indemnity. Sodding or seeding shall be as follows:

Lawn or High Maintenance Situation	70% Lawn Fescue (e.g., variety - Falcon) 30% Bluegrass or 70% Lawn Rye (e.g., variety - Derby) 30% Bluegrass
Right of Way Lawn Maintenance Situation	70% KY 31 Fescue 30% Perennial Rye Grass or 100% KY Fescue

☒ Two tons of clean straw mulch per acre of seeding.

☒ Prior to seeding, the ground shall be prepared in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

☐ Substitutes for sod such as artificial turf, rocked mulch, or paved areas may be acceptable if they are aesthetically pleasing.

☐ All ditch-flow lines and all ditch-side slopes shall be sodded.

☐ Existing concrete right of way markers shall not be disturbed, but if damaged in any way, they shall be entirely replaced by the permittee, with new concrete markers to match the original markers, in accordance with Kentucky Department of Highways Standard Drawings. Markers that are entirely removed shall be re-established in the proper locations by the permittee and to the satisfaction of the Department.

☐ Other right of way restoration requirements are as follows:

V. DRAINAGE

☐ All pipe shall be laid in a straight alignment, to proper grades, and with all materials and methods of installation including bedding and joint seating in accordance with Department Standard Specifications for Road and Bridge Construction (latest edition). Pipe shall not be covered until inspected by the Department and express permission obtained to make backfill.

☐ All gutter lines at the base of new curbs shall be on continuous grades, and pockets of water along with curbs or in entrance areas or other paved areas within the right of way shall not be acceptable.

☒ All drainage structures and appurtenances (manholes, catch basins, curbing, inlet basins, etc.) shall conform to Department specifications and shall be constructed in accordance with the Department Standard Drawings. Type required:

Any excavation near cross culvert ends will require use of adequate erosion control measures, preferably #2 rip rap stone.

VI. Paving

☐ No bituminous pavement shall be installed within the right of way between November 15 and April 1, nor when the temperature is below 40 degrees Farenheit, without the express consent of the Department. No bituminous pavement shall be installed when the underlying course is wet.

☐ Paving within the right of way shall be as follows:

☐ Base (Type) _____ (Thickness) _____

☐ Surface Base (Type) _____ (Thickness) _____

☐ Finished Surface (Type) _____ (Thickness) _____

☐ Existing pavement and shoulder material shall be removed to acommodate the above paving specifications.

☐ The finished surface of all new pavement within the right of way shall be true to the required slope and grade, uniform in density and texture, free of irregularities, and equivalent in riding qualities to the adjacent highway pavement or as determined by the Department of Highways.

☐ All materials and methods of construction, including base and subgrade preparation, shall be in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

☐ 24 hours notice to the Department is required prior to beginning paving operations.

Phone: _____ Name: _____

☐ To ensure proper surface drainage, the new pavement shall be flush with the edge of existing highway pavement and shall slope away from the existing edge of the pavement as specified in drawings.

☐ Existing edge of pavement shall be saw-cut to provide a straight and uniform joint for new pavement. An approved joint sealer, in accordance with Kentucky Department of Highways Standard Specifications (latest edition), shall be applied between new and existing pavements.

VII. SIDEWALKS SPECIFICATIONS - This dimension should be equal to the width of the sidewalk.

A. New Sidewalks

☐ Sidewalks shall be constructed of Class A concrete (3,500 p.s.i. test), shall be *_____ feet in width, 6 inches in thickness across the bituminous entrance, and 4 inches in thickness across the remaining sections.

☐ Sidewalks shall have tooled joints not less than 1 inch in depth at four foot intervals*, and 1/2 premolded expansion joints extending entirely through the sidewalk at intervals not to exceed 50 feet.

☐ All materials and methods of construction, including curing, shall be in accordance with the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

B. Existing Sidewalks

☐ **(Applicable if existing sidewalks are being relocated)** Use of the sidewalk shall not be blocked or obstructed, and a usable walkway shall be maintained across the construction area at all times.

☐ All damaged sections of the sidewalks shall be entirely replaced to match existing sections.

VIII. DENSE GRADED SHOULDERS

☒ Any existing dense-graded aggregate shoulders in the entire frontage within the construction area, which have been disturbed or damaged or on which dirt has been placed or mud has been deposited or tracked, shall be restored to original condition by removal of all contaminated material and replaced to proper grade with new dense-graded aggregate.

☐ All new aggregate shoulders as specified in the plan shall consist of 5 inches of compacted dense-graded aggregate, $2^{1/2}$ pounds per square yard of calcium chloride.

☐ All dense-graded aggregate shoulders shall slope away from the new edge of pavement at the rate of 3/4 inch per foot.

IX. CURBING

A. Bituminous Curbs

☐ Bituminous concrete curbs shall be given a paint coat of asphalt emulsion.

☐ The surface under the bituminous concrete curb shall be tacked with asphalt emulsion.

☐ All bituminous concrete curbs shall be constructed of a Class I bituminous concrete mixture as specified by official Department of Highways specifications.

☐ All bituminous curbs shall be rolled curb, with a minimum base width of 8 inches and a minimum height of _____ inches. The top of the curb shall be constructed in such a manner as to guarantee a uniform rolled effect throughout the entire run.

B. Concrete Curbs

☐ All curbs or curb and gutter shall be constructed of Class A concrete (3,500 p.s.i. test) and shall be uniform in height, width, and alignment, true to grade, and satisfactory in finish and appearance as determined by the Department. All materials and methods of construction, including curing, shall be in accordance with Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

☐ All concrete curbs shall be 6 inches in width, extend _____ inches above finished grade and 12 inches below finished grade, with all visible edge rounded to 1/2 inch radii.

☐ All concrete curbs shall have expansion joints constructed at intervals of not more than 30 feet, and 1/2 inch premolded expansion joint material (cut to conform to the curb or to the curb and gutter section) shall be used in each expansion joint.

☐ The last _____ feet of all concrete curbs are to be tapered down to finished grade.

X. RIGHT-OF-WAY FENCE REPLACEMENT

☐ The replacement fence shall be a height of at least 48 inches and shall be of sufficient density to contain all animals (if applicable).

☐ The replacement fence shall be a minimum of 1 foot and a maximum of 2 feet outside the right-of-way line.

☐ The fence materials and design shall meet accepted industry standards and be treated as paintable.

☐ The permittee shall be required to maintain the fence in a high state of repair.

☐ The existing fence shall be removed by permittee and stored at the Department's maintenance storage yard for future reuse by the Department.

☐ The control of access shall not be diminished as a result of replacement of the fence.

☐ Miscellaneous:

NOTICE TO PERMITTEE

THE PERMITTEE AGREES THAT ALL WORK WITHIN THE EXISTING RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH THE PLANS AS APPROVED AND PERMITTED BY AN ENCROACHMENT PERMIT. ANY CHANGES OR VARIANCES MADE AT THE TIME OF CONSTRUCTION WITHOUT WRITTEN APPROVAL FROM THE DEPARTMENT OF HIGHWAYS SHALL BE REMOVED BY THE PERMITTEE AT NO EXPENSE TO THE DEPARTMENT OF HIGHWAYS AND SHALL BE REDONE BY THE PERMITTEE TO CONFORM WITH THE APPROVED PLANS.

TRANSPORTATION CABINET
Department of Highways District 6 Office
421 Buttermilk Pike
Covington, KY 41017
(859) 341-2700

Steven L. Beshear
Governor

Michael W. Hancock, P.E.
Secretary

April 2, 2012

KENTUCKY-AMERICAN WATER COMPANY
2300 RICHMOND ROAD - P.O. BOX 7500
LEXINGTON, KY 40502

SUBJECT: Owen County, -94-127-.17
US 127 (FRANKFORT ROAD)
Permit Number 06-0166-12

Dear KENTUCKY-AMERICAN WATER COMPANY:

Your application for an encroachment permit has been approved by the Department of Highways. We are returning two copies of the approved permit so one may be kept in your record files. The other copy must be given to the party responsible for completing the project and must be kept at the jobsite at all times.

Please see that the work is done in strict conformity with the permit and any other applicable conditions (See Form TC99-21 and any other attached documents, conditions or specifications). The work should be completed no later than January 1, 2014. When the permitted work and any necessary restoration have been completed please notify this office by using the attached form which will serve as notification for final inspection.

If there are any questions regarding this permit, please do not hesitate to contact James Minckley at 859-341-2700 or fax number 859-341-6729.

Sincerely,

for

Robert Hans, P.E.
Chief District Engineer
Department of Highways
District 6 -Covington
421 Buttermilk Pike
Covington, KY 41017

NOTICE OF COMPLETION OF ENCROACHMENT PERMIT WORK

Please return this form to the District Office when work is completed and ready for final inspection.

Applicant Identification	Project Identification
Name: KENTUCKY-AMERICAN WATER COMPANY	Permit Number: 06-0166-12
Contact Person:	County: Owen
Address: 2300 RICHMOND ROAD - P.O. BOX	Route Number: 127
City: LEXINGTON	Road Name: FRANKFORT ROAD
State: KY Zip: 40502	Milepoint: .17
Telephone: 606-269-2386	

I wish to notify the Department of Highways that the above mentioned permit work and any necessary right of way restoration have been completed and are ready for final inspection.

_____
Applicant

Please Return To: Department of Highways
District 6 Covington
421 Buttermilk Pike
Covington, Ky. 41017

Attention: James Minckley

Kentucky Transportation Cabinet
Department of Highways
Permits Branch

TC 99-1 (A)
2/2012

APPLICATION FOR ENCROACHMENT PERMIT

KEPTS No. 06-0166-12

Applicant/Permittee	
Name Kentucky American Water	
Address 2300 Richmond Road	
City Lexington	
State KY	Zip 40502
Phone 859-335-3415	
Cell Phone	
Work Phone 859-335-3415	
Email Address Jason.Hurt@amwater.com	

Permit Location	
Address	
City Owenton	
State KY	Zip 40359
County Owen	
Route No. US 127 "Frankfort Road"	
Mile Point 0.17 to 13.832	
GPS Coordinates	
X	
Y	

APPROVED
APPROVED APR 02 2012

Access Control
☐ Fully Controlled Access
☐ Partially Controlled Access
☒ Control of Access by Permit

Type of Encroachment (KYTC)

DESCRIPTION OF WORK:

39,200 LF - 16" DI WATER MAIN AND APPURTENANCES (INCLUDING UNDER GROUND VAULTS, VALVES, ANTENNA POLES, AIR RELEASE PIPING, ETC.) RUNNING PARALLEL TO US 127 FROM THE OWEN COUNTY AND FRANKLIN COUNTY LINE NORTH TO STATION 402+00 ON THE PROJECT PLANS, SEE SHEETS 3 THROUGH 13; 16 THROUGH 18; & 20. 60 LF - 16" DI WATER MAIN CROSSING WITH 60 LF - 24" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 51+10 TO STATION 51+70, SEE SHEET 4. 60 LF - 16" DI WATER MAIN CROSSING WITH 60 LF - 24" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 107+15 TO STATION 107+75, SEE SHEET 6. 60 LF - 16" DI WATER MAIN CROSSING WITH 60 LF - 24" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 172+10 TO STATION 172+70, SEE SHEET 9. 60 LF - 16" DI WATER MAIN CROSSING WITH 60 LF - 24" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 273+90 TO STATION 274+50, SEE SHEET 13. 60 LF - 16" DI WATER MAIN CROSSING WITH 60 LF - 24" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 368+10 TO STATION 368+70, SEE SHEET 16. 60 LF - 16" DI WATER MAIN CROSSING WITH 60 LF - 24" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 401+10 TO STATION 401+70, SEE SHEET 18, Phase 1

* See Sheet 1B for Phase 2 Description of Work

* KY 607 Work → Permit # - 06-0150-12

* Phase 2 permit # → 06-0165-12

Kentucky Transportation Cabinet
Department of Highways
Permits Branch

1B

TC 99-1 (A)
2/2012

APPLICATION FOR ENCROACHMENT PERMIT

KEPTS No. 06-0166-12

Applicant/Permittee	
Name Kentucky American Water	
Address 2300 Richmond Road	
City Lexington	
State KY	Zip 40502
Phone 859-335-3415	
Cell Phone	
Work Phone 859-335-3415	
Email Address Jason.Hurt@amwater.com	

Permit Location	
Address	
City Owenton	
State KY	Zip 40359
County Owen	
Route No. US 127	
Mile Point	
GPS Coordinates	
X	
Y	

Access Control
☐ Fully Controlled Access
☐ Partially Controlled Access
☒ Control of Access by Permit

Type of Encroachment (KYTC)

DESCRIPTION OF WORK:

38,800 LF - 16" DI WATER MAIN AND APPURTENANCES (INCLUDING UNDER GROUND VAULTS, VALVES, ANTENNA POLES, AIR RELEASE PIPING, ETC.) RUNNING PARALLEL TO US 127 IN OWEN COUNTY NORTH TO THE INTERSECTION OF US 127 & KY 22, STATION 19+50 ON THE PROJECT PLANS, SEE SHEETS 3 THROUGH 18. 60 LF - 16" DI WATER MAIN CROSSING WITH 60 LF - 24" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 43+50 TO STATION 44+10, SEE SHEET 4. 60 LF - 16" DI WATER MAIN CROSSING WITH 60 LF - 24" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 303+70 TO STATION 304+30, SEE SHEET 14. 60 LF - 16" DI WATER MAIN CROSSING WITH 60 LF - 24" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 327+50 TO STATION 328+10, SEE SHEET 15. 60 LF - 8" DI WATER MAIN CROSSING WITH 60 LF - 16" MIN. BORE WITH STEEL CASING PIPE STARTING AT STATION 396+50 TO STATION 397+10, SEE SHEET 17, Phase 2

06-0166-12

APPLICATION FOR ENCROACHMENT PERMIT

Applicant/Permittee agrees to the following terms and conditions:

1. The permit, including this application and all related and accompanying documents and drawings making up the permit, remains in effect and is binding upon the Applicant/Permittee, its successors and assigns, as long as the encroachment(s) exists and also until the permittee is finally relieved by the Department of Highways from all its obligations.

2. Applicant shall meet all requirements of the Clean Water Act if the project will disturb one acre or more, the applicant shall obtain a KPDES KYR10 Permit from the Kentucky Division of Water. All disturbed areas shall meet the requirements of the Department of Highway's Standard Specifications, Sections 212 and 213, as amended.

3. INDEMNITY:

- **A.** PERFORMANCE BOND: The permittee shall provide to the Department a performance bond, when required, in the amount of $ 130,000 (an amount equal to the estimated project cost as prepared and submitted by the applicant and approved by the Department) as a guarantee of conformance with the Department's Encroachment Permit requirements.
- **B.** PAYMENT BOND: At the discretion of the department, a payment bond will be required of the permittee to ensure payment of liquidated damages assessed to the permittee.
- **C.** LIABILITY INSURANCE: Liability insurance will be required of the permittee (in an amount approved by the department) to cover all liabilities associated with the encroachment.
- **D.** It shall be the responsibility of the permittee, its successors and assigns, to maintain all indemnities in full force and effect until the permittee is authorized to release the indemnity by the Department.

4. A copy of this application and all related documents making up the approved permit will be given to the applicant and shall be made readily available for review at the work site at all times.

5. Perpetual maintenance of the encroachment is the responsibility of the permittee, its successors and assigns, with the approval of the Department as required, unless otherwise stated.

6. Permittee, its successors and assigns, shall comply with and agrees to be bound by the requirements and terms of (a) this application and all related documents making up the approved permit, (b) by the Department's Permits Manual, and (c) by the Manual on Uniform Traffic Control Devices, both manuals as revised to and in effect on the date of issuance of the permit, all of which documents are made a part thereof by this reference. Compliance by the permittee, its successors and assigns, with subsequent revisions to applicable provisions of either manual or other policy of the Department may be made a condition of allowing the encroachment to persist under the permit.

7. Permittee agrees that this and any encroachment may be ordered removed by the Department at any time, and for any reason, upon thirty days written notice to the last known address of the applicant or to the address at the location of the encroachment. The permittee agrees that the cost of removing and of restoring the associated right-of-way is the responsibility of the permittee, its successors and assigns.

8. Permittee, its successors and assigns, agree that if the Department determines that motor vehicular safety deficiencies develop as a result of the installation or use of the encroachment, the permittee, its successors and assigns, shall provide and bear the expenses to adjust, relocate, or reconstruct the facilities, and/or add signs, auxiliary lanes, or other corrective measures reasonably deemed necessary by the Department within a reasonable time after receipt of a written notice of such deficiency. The period within which such adjustments, relocations, additions, modifications, and/or other corrective measures must be completed will be specified in the notice.

9. Where traffic signals are required as a condition of granting the requested permit or are thereafter required to correct motor vehicular safety deficiencies, as determined by the Department, the costs for signal equipment and installation(s) shall be borne by the permittee, its successors and assigns, and/or the Department in its reasonable discretion and only in accordance with the Department's current policy set forth in the Traffic Operations Manual and Permits Manual. Any modifications to the permittee's entrance necessary to accommodate signalization (including necessary easement(s) on private property) shall be the responsibility of the permittee, its successors and assigns, at no expense to the Department.

10. The requested encroachment shall not infringe on the frontage rights of an abutting owner without their written consent as hereinafter described. Each abutting owner shall express their consent, which shall be binding on their successors and assigns, by the submission of a notarized statement as follows, "I (we), _____, hereby consent to the granting of the permit requested by the applicant along Route_____, which permit does affect frontage rights along my (our) adjacent real property." By signature(s) _____, subscribed and sworn by_____, on this date_____. (This requirement does not apply to utility encroachments which serve the general public).

11. The permit, if approved, is subject to the agreement that it shall not interfere with any similar rights or permit(s) previously granted to any other party, except as otherwise provided by law.

06-0166-12

APPLICATION FOR ENCROACHMENT PERMIT

12. Permittee shall include documentation which describes the facilities to be constructed. Permittee, its successors and assigns, agrees as a condition of the granting of the permit to construct and maintain any and all permitted facilities or other encroachments in strict accordance with the submitted and approved permit documentation and the policies and procedures of the Department. Permittee, its successors and assigns, shall not use facilities authorized herein in any manner contrary to that prescribed by the approved permit. Only normal usage as contemplated by the parties and by this application and routine maintenance are authorized by the permit.

13. Permittee, its successors and assigns, at all times from the date permitted work is commenced until such time as all permitted facilities or other encroachments are removed from the right-of-way and the right-of-way restored, **shall defend, protect, indemnify and save harmless** the Department from any and all liability claims and demands arising out of the work, encroachment, maintenance, or other undertaking by the permittee, its successors and assigns, related or undertaken pursuant to the granted permit, due to any claimed act or omission by the permittee, its servants, agents, employees, or contractors. This provision shall not inure to the benefit of any third party nor operate to enlarge any liability of the Department beyond that existing at common law or otherwise if this right to indemnity did not exist.

14. Upon a violation of any provision of the permit, or otherwise in its reasonable discretion, the Department may require additional action by the permittee, its successors and assigns, up to and including the removal of the encroachment and restoration of the right-of-way. In the event additional actions required by the Department under the permit are not undertaken as ordered and within a reasonable time, the Department may in its discretion cause those or other additional corrective actions to be undertaken and the Department may and shall recover the reasonable costs of those corrective actions from the permittee, its successors and assigns.

15. Permittee, its successors and assigns, shall use the encroachment premises in compliance with all requirements of federal law and regulation, including those imposed pursuant to Title VI of the Civil Right Act of 1964 (42 U.S.C. § 2000d et seq.) and the related regulations of the U.S. Department of Transportation in Title 49 C.F.R. Part 21, all as amended.

16. Permittee, its successors and assigns, agree that if the Department determines it is necessary for the facilities or other encroachment authorized by the permit to be removed, relocated or reconstructed in connection with the reconstruction, relocation or improvement of a highway, the Department may revoke permission for the encroachment to remain under the permit and may order its removal, relocation or reconstruction by the permittee, its successors and assigns, at the expense of the permittee, except where the Department is required by law to pay any or all of those costs.

17. Permittee agrees that the authorized permit is personal to the permittee and shall remain in effect until such time as (a) the permittee's rights to the adjoining real property to have benefitted from the requested encroachment have been relinquished, (b) until all permit obligations have been assumed by appropriate successors and assigns, and (c) unless and until a written release from permit obligations has been granted by the Department. The permit and its requirements shall also bind the real property to have benefitted from the requested encroachment to the extent permitted by law. The permit and the related encroachment become the responsibility of the successors and assigns of the permittee and the successors and assigns of each property owner benefitting from the encroachment, or the encroachment may not otherwise permissibly continue to be maintained on the right-of-way. (Does not apply to utility encroachments serving the general public.)

18. If work authorized by the permit is within a highway construction project in the construction phase, it shall be the responsibility of the permittee to make personal contact with the Department's Engineer on the project in order to coordinate all permitted work with the Department's prime contractor on the project.

19. This permit is not intended to, nor shall it, affect, alter or alleviate any requirement imposed upon the permittee, its successors and assigns, by any other agency.

20. Permittee, its successors and assigns, agrees to contain and maintain all dirt, mud, and other debris emanating from the encroachment away from the surrounding right-of-way and the travel way of the highway hereafter and at all times that its obligations under the permit remain in effect.

THE UNDERSIGNED APPLICANT(s)/PERMITTEE(s) (being duly authorized representative(s)/owner(s)) DO AGREE TO ALL TERMS AND CONDITIONS SET FORTH HEREIN.

Signature (of Applicant/Permittee)	Date
Sam M. [illegible]	2/28/12

This is not a permit unless and until the permittee(s) receive an approved TC 99-1(B) from the KYTC. This application will become void if not approved by the cancellation date. The cancellation date will be one year from the date the permittee submits their application.

Kentucky Transportation Cabinet
Department of Highways
Permits Branch

ENCROACHMENT PERMIT

KEPTS No.: 06-0166-12

Permittee: KY. Am. Water

Latitude: _____

Longitude: _____

Completion Date: _____

Coordinates provided on the TC 99-1(B) are the approved location for this permit.

Indemnities		
Type	Amount Required	Tracking Number
Performance Bond	130,000	
Payment Bond		
Liability Insurance		

KM

This permit has been: CM

APPROVED ☒ **DENIED** ☐

Richard T Davis — Team - Dvc. Support

NAME **TITLE**

SIGNATURE 5/29/12 **DATE**

The TC 99-1(B), including the application TC-99 1(A) and all related and accompanying documents and drawings make up the permit. It is not a permit unless both the TC 99-1(A) and TC 99-1(B) are both present.

06-0166-12

IMPORTANT NOTICE

Federal law requires that traffic control shall be implemented in accordance with MUTCD Standards and KYTC Specifications under the supervision of a Work Zone Traffic Control Supervisor.

A Work Zone Traffic Control Technician shall be available on the jobsite to ensure that the work zone is in compliance with the applicable standards.

If any questions, please contact James Minckley at (859) 341-2700.

06-0166-12

IMPORTANT NOTICE

Federal law requires that High visibility Class 2 or Class 3 retroreflective safety apparel that meets ANSI/ISEA 107-2004 Standards shall be worn at all times by anyone working within the KYTC R/W limits.

Class 3 apparel is required for flaggers after dark.

If any questions, please contact James Minckley at (859) 341-2700.

ENCROACHMENT PERMIT GENERAL NOTES & SPECIFICATIONS

Permit No. 06-0166-12

I. SAFETY

A. General Provisions

☒ All signs and control of traffic shall be in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways, latest edition, Part VI, and safety requirements shall comply with the Permits Manual.

☒ All work necessary in shoulder or ditch line areas of a state highway shall be scheduled to be promptly completed so that hazards adjacent to the traveled way are kept to an absolute minimum.

☒ No more than one (1) traveled-lane shall be blocked or obstructed during normal working hours. All signs and flaggers during lane closure shall conform to the Manual on Uniform Traffic Control Devices.

☒ When necessary to block one (1) traveled-lane of a state highway, the normal working hours shall be as directed by the Department. No lanes shall be blocked or obstructed during adverse weather conditions (rain, snow, fog, etc.) without specific permission from the Department. Working hours shall be between 8:00am and 4:30pm

☒ The traveled-way and shoulders shall be kept clear of mud and other construction debris at all times during construction of the permitted facility.

☒ No nonconstruction equipment or vehicles or office trailers shall be allowed on the right of way during working hours.

☒ The right of way shall be left free and clear of equipment, material, and vehicles during non-working hours.

B. Explosives

☒ No explosive devices or explosive material shall be used within state right of way without proper license and approval of the Kentucky Department of Mines and Minerals, Explosive Division.

C. Other Safety Requirements

☐

II. UTILITIES - Applies to Fully Controlled Access Highways ONLY

☐ *All work necessary within the right of way shall be performed behind a temporary fence erected prior to a boring operation.

☐ *The temporary woven wire fence shall be removed immediately upon completion of work on the right of way, and the control of access immediately restored to original condition, in accordance with applicable Kentucky Department of Highways Standard Drawings.

☐ *All vents, valves, manholes, etc., shall be located outside of the right-of-way.

☐ *Encasement pipe shall extend from right-of-way line to right-of-way line and shall be one continuous run of pipe. The encasement pipe shall be welded at all joints.

☒ The boring pit and tail ditch shall extend past the existing toe of slope or bottom of ditch line and shall be a minimum of 42 inches deep.

II. UTILITIES (Continued)

☒ Encasement pipe pipe shall conform to current standards for highway crossings in accordance with the Permits Manual.

☒ Parallel lines shall be constructed between back slope of ditch line and right-of-way line and shall have a minimum of ~~30 inch~~ 36" cover above top of pipe or conduit.

☐ All pavement cuts shall be restored per Kentucky Transportation Cabinet form TC 99-13.

☐ Aerial crossing of this utility line shall have a minimum clearance of _____ feet from the high point of the roadway to the low point of the line (calculated at the coefficient for expansion of 120 degrees Farenheit).

☒ The 30-foot clear zone requirement shall be met to the extent possible in accordance with the Permits Manual.

☒ Special requirements:

Any excavation within 5 feet of Edge of Pavement will require flowable fill as backfill.

III. GENERAL

A. OSHA

☒ Kentucky Occupational Safety and Health Standards for the construction industry, which has the effect of law, states in part: (Page 52, 1926.651, Specific Excavation Requirements) "Prior to opening an excavation, effort shall be made to determine whether underground installations, (sewer, telephone, water, fuel, electric lines, etc.) will be encountered, and if so, where such underground installations are located. When the excavation approaches the estimated location of such an installation, the exact location shall be determined, and when it is uncovered, proper supports shall be provided for the existing installation. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation."

B. Archaeological

☒ Whenever materials of an archaeological nature are discovered during the course of construction work or maintenance operations, contact shall be made immediately with the Division of Environmental Analysis, which maintains an archaeologist on staff, or with the Office of the State Archaeologist located at the University of Kentucky. Following this consultation, further action shall be decided on a case-by-case basis by the State Highway Engineer or the Transportation Planning Engineer or their designated representative.

C. Utilities in the Work Areas

☒ The permittee shall be responsible for any damage to existing utilities, and any utility modifications or relocations within state right of way necessary, as determined by the Department or by the owner of the utility, shall be at the expense of the permittee and subject to the approval of the Department.

☒ All existing manholes and valve boxes shall be adjusted to be flush with finished grade.

D. Environmental

☒ If the activity to which this permit relates disturbs one acre or more of land, you must obtain a KPDES KYR10 permit.

Websites

http://www.water.ky.gov/permitting/wastewaterpermitting/KPDES/storm/

Inspectors for KPDES KYR10 at www.KEPSC.org

IV. RIGHT OF WAY RESTORATION

☒ All disturbed portions of the right of way shall be restored to grass as per Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition). A satisfactory turf, as determined by the Department, shall be established by the permittee prior to release of indemnity. Sodding or seeding shall be as follows:

Lawn or High Maintenance Situation	70% Lawn Fescue (e.g., variety - Falcon) 30% Bluegrass or
	70% Lawn Rye (e.g., variety - Derby) 30% Bluegrass
Right of Way Lawn Maintenance Situation	70% KY 31 Fescue 30% Perennial Rye Grass or
	100% KY Fescue

☒ Two tons of clean straw mulch per acre of seeding.

☒ Prior to seeding, the ground shall be prepared in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

☐ Substitutes for sod such as artificial turf, rocked mulch, or paved areas may be acceptable if they are aesthetically pleasing.

☐ All ditch-flow lines and all ditch-side slopes shall be sodded.

☒ Existing concrete right of way markers shall not be disturbed, but if damaged in any way, they shall be entirely replaced by the permittee, with new concrete markers to match the original markers, in accordance with Kentucky Department of Highways Standard Drawings. Markers that are entirely removed shall be re-established in the proper locations by the permittee and to the satisfaction of the Department.

☒ Other right of way restoration requirements are as follows:

Proper measures must be taken to control erosion along entire length of this project

V. DRAINAGE

☐ All pipe shall be laid in a straight alignment, to proper grades, and with all materials and methods of installation including bedding and joint seating in accordance with Department Standard Specifications for Road and Bridge Construction (latest edition). Pipe shall not be covered until inspected by the Department and express permission obtained to make backfill.

☐ All gutter lines at the base of new curbs shall be on continuous grades, and pockets of water along with curbs or in entrance areas or other paved areas within the right of way shall not be acceptable.

☒ All drainage structures and appurtenances (manholes, catch basins, curbing, inlet basins, etc.) shall conform to Department specifications and shall be constructed in accordance with the Department Standard Drawings. Type required:

Any negative impact to current drainage structures must be corrected to KYTC's specification.

VI. Paving

☐ No bituminous pavement shall be installed within the right of way between November 15 and April 1, nor when the temperature is below 40 degrees Farenheit, without the express consent of the Department. No bituminous pavement shall be installed when the underlying course is wet.

☐ Paving within the right of way shall be as follows:

☐ Base (Type) _____ (Thickness) _____

☐ Surface Base (Type) _____ (Thickness) _____

☐ Finished Surface (Type) _____ (Thickness) _____

☐ Existing pavement and shoulder material shall be removed to acommodate the above paving specifications.

☐ The finished surface of all new pavement within the right of way shall be true to the required slope and grade, uniform in density and texture, free of irregularities, and equivalent in riding qualities to the adjacent highway pavement or as determined by the Department of Highways.

☐ All materials and methods of construction, including base and subgrade preparation, shall be in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

☐ 24 hours notice to the Department is required prior to beginning paving operations.

Phone: _____ Name: _____

☐ To ensure proper surface drainage, the new pavement shall be flush with the edge of existing highway pavement and shall slope away from the existing edge of the pavement as specified in drawings.

☐ Existing edge of pavement shall be saw-cut to provide a straight and uniform joint for new pavement. An approved joint sealer, in accordance with Kentucky Department of Highways Standard Specifications (latest edition), shall be applied between new and existing pavements.

VII. SIDEWALKS SPECIFICATIONS *This dimension should be equal to the width of the sidewalk.

A. New Sidewalks

☐ Sidewalks shall be constructed of Class A concrete (3,500 p.s.i. test), shall be *_____ feet in width, 6 inches in thickness across the bituminous entrance, and 4 inches in thickness across the remaining sections.

☐ Sidewalks shall have tooled joints not less than 1 inch in depth at four foot intervals*, and 1/2 premolded expansion joints extending entirely through the sidewalk at intervals not to exceed 50 feet.

☐ All materials and methods of construction, including curing, shall be in accordance with the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

B. Existing Sidewalks

☒ **(Applicable if existing sidewalks are being relocated)** Use of the sidewalk shall not be blocked or obstructed, and a usable walkway shall be maintained across the construction area at all times.

☒ All damaged sections of the sidewalks shall be entirely replaced to match existing sections.

VIII. DENSE GRADED SHOULDERS

☒ Any existing dense-graded aggregate shoulders in the entire frontage within the construction area, which have been disturbed or damaged or on which dirt has been placed or mud has been deposited or tracked, shall be restored to original condition by removal of all contaminated material and replaced to proper grade with new dense-graded aggregate.

☐ All new aggregate shoulders as specified in the plan shall consist of 5 inches of compacted dense-graded aggregate, $2^{1/2}$ pounds per square yard of calcium chloride.

☐ All dense-graded aggregate shoulders shall slope away from the new edge of pavement at the rate of 3/4 inch per foot.

IX. CURBING

A. Bituminous Curbs

☐ Bituminous concrete curbs shall be given a paint coat of asphalt emulsion.

☐ The surface under the bituminous concrete curb shall be tacked with asphalt emulsion.

☐ All bituminous concrete curbs shall be constructed of a Class I bituminous concrete mixture as specified by official Department of Highways specifications.

☐ All bituminous curbs shall be rolled curb, with a minimum base width of 8 inches and a minimum height of _____ inches. The top of the curb shall be constructed in such a manner as to guarantee a uniform rolled effect throughout the entire run.

B. Concrete Curbs

☐ All curbs or curb and gutter shall be constructed of Class A concrete (3,500 p.s.i. test) and shall be uniform in height, width, and alignment, true to grade, and satisfactory in finish and appearance as determined by the Department. All materials and methods of construction, including curing, shall be in accordance with Department of Highways Standard Specifications for Road and Bridge Construction (latest edition).

☐ All concrete curbs shall be 6 inches in width, extend _____ inches above finished grade and 12 inches below finished grade, with all visible edge rounded to 1/2 inch radii.

☐ All concrete curbs shall have expansion joints constructed at intervals of not more than 30 feet, and 1/2 inch premolded expansion joint material (cut to conform to the curb or to the curb and gutter section) shall be used in each expansion joint.

☐ The last _____ feet of all concrete curbs are to be tapered down to finished grade.

X. RIGHT-OF-WAY FENCE REPLACEMENT

☐ The replacement fence shall be a height of at least 48 inches and shall be of sufficient density to contain all animals (if applicable).

☐ The replacement fence shall be a minimum of 1 foot and a maximum of 2 feet outside the right-of-way line.

☐ The fence materials and design shall meet accepted industry standards and be treated as paintable.

☐ The permittee shall be required to maintain the fence in a high state of repair.

☐ The existing fence shall be removed by permittee and stored at the Department's maintenance storage yard for future reuse by the Department.

☐ The control of access shall not be diminished as a result of replacement of the fence.

☒ Miscellaneous:

No open cuts of pavement to state roads are allowed with this permit

NOTICE TO PERMITTEE

THE PERMITTEE AGREES THAT ALL WORK WITHIN THE EXISTING RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH THE PLANS AS APPROVED AND PERMITTED BY AN ENCROACHMENT PERMIT. ANY CHANGES OR VARIANCES MADE AT THE TIME OF CONSTRUCTION WITHOUT WRITTEN APPROVAL FROM THE DEPARTMENT OF HIGHWAYS SHALL BE REMOVED BY THE PERMITTEE AT NO EXPENSE TO THE DEPARTMENT OF HIGHWAYS AND SHALL BE REDONE BY THE PERMITTEE TO CONFORM WITH THE APPROVED PLANS.

COMMONWEALTH OF KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

TYPICAL HIGHWAY BORING CROSSING DETAIL
PROPOSED UNDERGROUND CROSSING FOR EXISTING ROADWAY

Permit No. 06-0166-12
Route No. ALL STATE ROUTES
Pavement Width ___ ___

① MAY REQUIRE VERTICAL SHEETING.

② MAY BE REQUIRED UNDER CERTAIN CONDITIONS.

1. Push Pit and Receiving Pit to be backfilled and thoroughly compacted.
2. All Ditch Lines to be left open.
3. Seed and straw all areas disturbed by this work.
4. The Boring Pit and Tail Ditch shall not extend past the existing toe of slope or bottom of ditch line (from the right-of-way).
5. Services over 2" to be encased or exempt under Chapter 2 of the Permits Guidance Manual.
6. Control of Access Projects, Encasement pipe shall extend from Right of Way to Right of Way and shall be one continuous run of pipe.

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