Rubin & Hays

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

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

March 8, 2013

MAR 11 2013

PUBLIC SERVICE
COMMISSION

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

Re: Adair County Water District, d/b/a Columbia/Adair Utilities District

Dear Mr. Derouen:

Enclosed please find the original and ten (10) copies of the Application of the Adair County Water District, d/b/a/ Columbia/Adair Utilities District for a Certificate of Public Convenience and Necessity to construct a project pursuant to KRS Chapter 278.

Also enclosed are eleven (11) copies of the exhibits required, with the exception of the Plans and Specifications, prepared by Monarch Engineering, Inc., on the Project, two of which are being forwarded by said Engineers.

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

Sincerely,

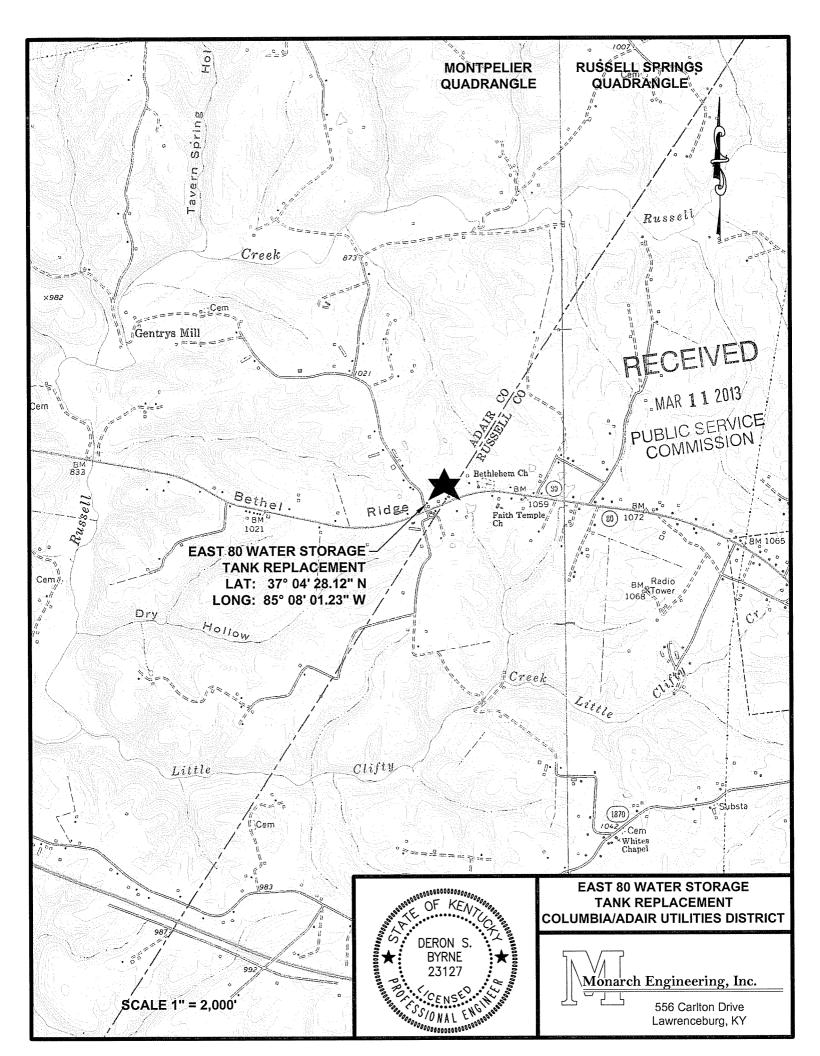
Rubin & Hays

By W. Randall Jones

WRJ:jlm Enclosures

cc: Mr. Robert Flowers, Chairman

David Bowles, P.E., Monarch Engineering, Inc.



COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

MAR 1 1 2013

In the matter of:

PUBLIC SERVICE COMMISSION

APPLICATION OF THE ADAIR COUNTY WATER DISTRICT FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A WATER IMPROVEMENTS PROJECT PURSUANT TO KRS 278.020 AND 807 KAR 5:001

Case No. 2013-____

APPLICATION

The Adair County Water District, d/b/a Columbia/Adair Utilities District (the "District"), by counsel, pursuant to KRS 278.020 and 807 KAR 5:001, petitions the Commission for a certificate of public convenience and necessity ("CPCN") to construct a water improvement project. The following information is filed in accordance with the Commission's regulations:

- 1. The District's office address is P.O. Box 567, Columbia, Kentucky 42728. Its principal officers are listed in its 2011 Annual Report, which is on file with the Commission;
- 2. The District is a non-profit water district organized under KRS Chapter 74 and has no separate articles of incorporation or by-laws;
- 3. A description of the District's water and sewer system and its property stated at original cost by accounts is contained in its Annual Report, which is incorporated by reference pursuant to 807 KAR 5:001. All required normal financial schedules and other data are in the Annual Report;
- 4. The water improvements project (the "Project") is described in **Exhibit** "A" attached hereto;

- 5. The Project is part of the Phase 11-2 Water Improvements and Extension Project. Certain portions of the Project have already been bid and are under construction (See PSC Case No. 2013-00016). This Application is requesting a CPCN for the remaining portion of the Phase 11-2 Project;
- 6. The total Project cost is \$1,500,000, as set forth in the Final Project Budget attached hereto as **Exhibit "B"**:
 - 7. The District has obtained all easements required for the Project;
 - 8. This service will not compete with any other utility in the area;
- 9. Based on these facts (see Exhibit "A" attached hereto), the District believes that it is in the public interest that this CPCN be granted;
 - 10. Copies of the certified bid tabulations are attached hereto as Exhibit "C";
 - 11. The following information is provided in response to 807 KAR 5:001 Section (14)(2);
- a. Articles of Incorporation None, the District is a statutorily created water district under KRS Chapter 74;
 - 12. The following information is supplied to 807 KAR 5:001 Section (15)(2);
- a. Facts relied upon to show that the Project is in the public interest: See **Exhibit**"A" attached hereto.
- b. No new franchises are required. Copies of the permits are attached hereto as Exhibit "D";
- c. Diagrams of the proposed construction and construction specifications are contained in the Plans and Specifications on file with the Commission;

- d. Three (3) maps of suitable scale showing location of the proposed facilities are filed with this Application;
- e. The construction costs will be funded by a Federally Assisted Wastewater Revolving Fund loan (Fund F) in the total amount of \$1,500,000 (the "DWSRF Loan") see **PSC**Case No. 2013-00016 for approval of the DWSRF Loan;
- f. The estimated cost of operation of the system after construction is completed is attached hereto as **Exhibit "E"**;

WHEREFORE, the Applicant, Adair County Water District, d/b/a Columbia/Adair Utilities

District requests that the Public Service Commission of Kentucky take the following actions:

- 1. Grant to the Applicant a Certificate of Public Convenience and Necessity permitting the Applicant to construct the water improvement project;
- 2. Process this Application without a formal hearing in order to save time and expense.

 The District will promptly respond to any inquiries or information requests by the Commission's staff.

Adair County Water District, d/b/a Columbia/Adair Utilities District

Chairm

Rubin & Hays

W. Randall Jones, Esq.

Kentucky Home Prust Building

450 South Third Street

Louisville, Kentucky 40202

(502) 569-7525

COMMONWEALTH OF KENTUCKY)	
)	SS
COUNTY OF ADAIR)	

The undersigned, Robert Flowers, being duly sworn, deposes and states that he is the Chairman of the Adair County Water District, d/b/a Columbia/Adair Utilities District, Applicant; that he has read the foregoing Application and has noted the contents thereof; that the same is true of his own knowledge, except as to matters which are therein stated on information or belief, and as to those matters, he believes same to be true.

IN TESTIMONY WHEREOF, witness the signature of the undersigned on this March 6, 2013.

Robert Flowers, Chairman

My Commission expires 4-24-16.

Notary Public, in and for said County and State

	•			

COLUMBIA-ADAIR UTILITIES DISTRICT PHASE 11-2 300,000 GALLON ELEVATED WATER STORAGE TANK PROJECT DECRIPTION NARRATIVE

Project consists of replacing an abandoned 65,000 gallon ground storage tank with a new 300,000 gallon elevated water storage tank and appurtenances along East Kentucky Highway 80. Project also consists of demolishing and removal of the existing 65,000 gallon ground storage tank. The project will improve water quality as well as quantity for the eastern and southeastern portion of the District's distribution system.

		•
		•

FINAL BUDGET PHASE 15 WATER LINE EXTENSION & CONNECTOR LINES COLUMBIA / ADAIR UTILITIES DISTRICT ADAIR COUNTY, KENTUCKY FEBRUARY 2013

PROJECT COSTS

DEVELOPMENT

TOTAL PROJECT COSTS PHASE 2 AS BID	
LEGAL	5,000.00
CONSTRUCTION INSPECTION	59,048.09
ENGINEERING DESIGN	93,475.05
CONTINGENCY	276,626.86
TOTAL DEVELOPMENT	1,065,850.00
WATER STORAGE TANK	726,000.00
WATER LINE IMPROVEMENTS	\$339,850.00

FINAL BUDGET PHASE 15 WATER LINE EXTENSION & CONNECTOR LINES COLUMBIA / ADAIR UTILITIES DISTRICT ADAIR COUNTY, KENTUCKY FEBRUARY 2013

PROJECT FINANCING

STATE REVOLVING FUND - LOAN FORGIVENESS

600,000.00

STATE REVOLVING FUND - LOAN

900,000.00

TOTAL PROJECT COSTS

\$1,500,000.00

556 Carlton Drive

BID TABULATIONS

COLUMBIA-ADAIR UTILITIES DISTRICT

EAST KY 80 WATER STORAGE TANK REPLACEMENT ADIAR COUNTY, KENTUCKY

Lawrenceburg, KY 40342 Phone (502) 839-1310 Fax (502) 839-1373

BID DATE: FEBRUARY 14, 2013 @ 3:00 P.M. LOCAL TIME

Page 1 of 1

			Caldwell Tanks, Inc. 4000 Tower Road Louisville, KY 40219	•	Phoenix Fabricators 1329 US Hwy 41 N. Sebree, KY 42455	s, Inc.
ITEM			UNIT	TOTAL	UNIT	TOTAL
NO.	DESCRIPTION	QUANTITY	PRICE	COST	PRICE	COST
	BASE BID					
1	300,000 Gallon Elevated Water					
	Storage Tank (East KY 80)		tha 4 000 00	\$84,000.00	\$61,000.00	\$61,000.00
	1A) Foundation Concrete	1 LS	\$84,000.00	469,000.00		590,771.00
	1B) Steel Tank Structure & Erection	1 LS	469,000.00	50,000.00		49,000.00
	1C) Valve Vault, Piping, Flush Hydrant	1 LS	50,000.00	74,000.00		67,000.00
	1D) Field Painting	1 LS	74,000.00			1,000.00
	1E) Sterilization	1 LS	2,000.00	2,000.00		9,000.00
	1F) Sitework	1 LS	32,000.00	32,000.00	9,000.00	0,000
2	Demolition & Removal of 65,000 Gallon			A		
	Ground Water Storage Tank, including					
	all steel tank appurtenances, materials,			45,000,00	10,700.00	10,700.00
 	debris removal.	1 LS	15,000.00	15,000.00	10,700.00	\$788,471.00
	TOTAL BASE BID CONTRACT			\$726,000.00	LANGE COLL	

THE ABOVE IS A TRUE AND COMPLETE TABULATION OF BIDS RECEIVED AT 3:00P.M. LOCAL TIME, THURSDAY, FEBRUARY 14, 2013 AT THE COLUMBIA-ADAIR UTILITIES DISTRICT.

2/18/2013 DATE



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
November 9, 2012

Mr. Lennon Stone Columbia/Adair Utilities District 109 Grant Lane P. O. Box 567 Columbia, KY 42728

RE:

Columbia/Adair Utilities District AI # 33767, APE20120001 PWSID # 0010702-12-001

Phase 11-2 Water Line Extns. and Connector Lines

Adair County, KY

Dear Mr. Stone:

We have reviewed the plans and specifications for the above referenced project. The plans include the construction of approximately 1,900 linear feet of 3 inch PVC; 10,200 linear feet of 4 inch D.I.; 14,000 linear feet of 4 inch PVC; 21,000 linear feet of 8 inch PVC; 250 gpm (180 feet TDH) Booster Pump Station; 300,000 Gallon Water 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.

Based on the hydraulic analysis/data submitted, the areas served by the Providence Road and Knifley Connection extensions are considered to be underserved. This designation indicates that without improvements to the existing infrastructure, future extensions may not be able to provide the required minimum pressure of 30 psi on the discharge side of customers' meters. Without improvements to the infrastructure, future extensions may be denied. The underserved designation may be used to help prioritize areas under the Governor's 2020 plan for funding future infrastructure improvements.

If you have any questions concerning this project, please contact Mr. William Wright at 502-564-8158 x4829.

Sincerely,

Mark Rasche, P.E.

Supervisor, Engineering Section Water Infrastructure Branch

Division of Water

MR:WW

Enclosures

C: Monarch Engineering

Adair County Health Department Public Service Commission Division of Plumbing



Columbia/Adair Utilities District Facility Requirements

Activity ID No.: APE20120001

Page 1 of 19

GACT000000038 (Phase 11-2 WLE & East KY 80 WST Replacement) 1,900 linear feet of 3 inch PVC, 10,200 linear feet of 4 inch D.I., 14,000 linear feet of 4 inch PVC, 21,000 linear feet of 8 inch PVC; 250 gpm (180 feet TDH) Booster Pump Station, 300,000 Gallon Water Storage Tank:

Monitoring Requirements:

Condition No.	n Parameter	Condition
M-1	Coliform	The presence or absence of total Coliform monitored by sampling and analysis as needed shall be determined for the new or relocated water line(s). Take samples at connection points to existing lines, at 1 mile intervals, and at dead ends without omitting any branch of the new or relocated water line. Sample bottles shall be clearly identified as "special" construction tests. [401 KAR 8:100 Section 1(7), 401 KAR 8:150 Section 4, Recommended Standards for Water Works 8.5.6] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.
M-2	Coliform	The presence or absence of total Coliform monitored by sampling and analysis as needed shall be determined for the new storage structure(s). With at least 1 sample taken at least 24 hours after the first construction complete sample(s), take 2 or more samples from the yard hydrant, the outlet piping from the storage structure, or a sample tap directly connected to the storage structure. Sample bottles shall be clearly identified as "special" construction tests. [Recommended Standards for Water Works 7.0.18, 401 KAR 8:150 Section 4] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.
M-3	Coliform	The presence or absence of total Coliform monitored by sampling and analysis as needed shall be determined for the new pump(s). If the pump(s) are independent of (not directly connected to) the new or relocated lines, take at least 1 sample at the discharge side pitcock. Otherwise, no additional sampling beyond the sampling required for new or relocated lines shall be required in association with the pump(s). Sample bottles shall be clearly identified as "special" construction tests. [401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.

Submittal/Action Requirements:

Coliform:

Condition No.	Condition
S-1	Coliform For new construction projects, the distribution system, using the most expedient method, shall submit Coliform test results to the Cabinet: Due immediately following disinfection and flushing. [401 KAR 8:150 Section 4(2)]

Columbia/Adair Utilities District Facility Requirements

Activity ID No.: APE20120001

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GACT0000000038 (continued):

Submittal/Action Requirements:

Condition	Condition
No.	
S-2	For proposed changes to the approved plan, submit information: Due prior to any modification to the Cabinet for approval. Changes to the approved plan shall not be implemented without the prior written approval of the Cabinet. [401 KAR 8:100 Section 1(8)]
	The person who presented the plans shall submit the professional engineer's certification: Due when construction is complete to the Division of Water. The certification shall be signed by a registered professional engineer and state that the water project has been constructed and tested in accordance with the approved plans, specifications, and requirements. [401 KAR 8:100 Section 1(8)]

Narrative Requirements:

Additional Limitations:

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

Columbia/Adair Utilities District Facility Requirements

Activity ID No.: APE20120001

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Narrative Requirements:

Condition No.	Condition
T-4	Final approval of facility. Upon completion of construction, the person who presented the plans shall certify in writing that the project has been completed in accordance with the "approved" plans and specifications. The public water supply shall operate the facility consistent with the approved plans and specifications. Any proposed change to the approved plan shall be submitted to the cabinet for approval. The public water supply shall not implement any change to the approved plan without the prior written approval of the cabinet. [401 KAR 8:100 Section 401 KAR 8:100(1)(8)]
T-5	During construction, a set of approved plans and specification shall be available at the job site at all times. All work shall be performed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 1(7)(a)]

Columbia/Adair Utilities District Facility Requirements

Activity ID No.: APE20120001

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PORT0000000044 (Phase 11-2 WLE & East KY 80 WST Replacement) 1,900 linear feet of 3 inch PVC, 10,200 linear feet of 4 inch D.I., 14,000 linear feet of 4 inch PVC, 21,000 linear feet of 8 inch PVC:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Depth	A continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe. Stones found in the trench shall be removed for a Depth >= 6 in below the bottom of the pipe. [Recommended Standards for Water Works 8.5.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-2	Depth	All water lines shall be covered to a Depth >= 30 in to prevent freezing. [Recommended Standards for Water Works 8.5.3, 401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-3	Diameter	All water lines shall have Diameter >= 3 in. [Recommended Standards for Water Works 8.1.4] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-4	Diameter	Water lines with Diameter < 6 in shall not have fire hydrants. [Recommended Standards for Water Works 8.1.5] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-5	Diameter	All new and existing water lines serving fire hydrants or where fire protection is provided shall have Diameter >= 6 in. [Recommended Standards for Water Works 8.1.2] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-6	Distance	Water lines shall have a sufficient quantity of valves so that inconvenience and sanitary hazards will be minimized during repairs. A valve spacing Distance <= 800 feet should be utilized in non-commercial districts. Alternatively, non-commercial districts should utilize a valve spacing Distance <= 1 block. Commercial districts should utilize a valve spacing Distance < or = 500 ft. [Recommended Standards for Water Works 8.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-7	Distance	Hydrant drains shall not be connected to sanitary sewers or storm drains and shall be located a Distance > 10 ft from sanitary sewers and storm drains. [Recommended Standards for Water Works 8.3.4] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.

Columbia/Adair Utilities District Facility Requirements

Activity ID No.: APE20120001

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Limitation Requirements:

Condition		
No.	Parameter	Condition
L-8	Distance	Except when not practical, water lines shall be laid a horizontal Distance >= 10 ft from any existing or proposed sewer. The distance shall be measured edge to edge. In cases where it is not practical to maintain a 10 foot separation, water lines may be installed closer to a sewer provided that the water lines shall be laid in a separate trench or on an undisturbed shelf located on one side of the sewer at such an elevation that the bottom of the water line is at least 18 inches above the top of the sewer. [Recommended Standards for Water Works 8.6.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-9	Distance	When water lines and sewers cross, 1) water lines shall be laid such that either a) the the top of the water line is a vertical Distance >= 18 in below the bottom of the sewer line or b) the bottom of the water line is a vertical Distance >= 18 in above the top of the sewer line, 2) 1 full length of the water pipe shall be located so that both joints of the water pipe will be as far from the sewer as possible, and 3) special structural support for the water and sewer pipes may be required. [Recommended Standards for Water Works 8.6.3] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-10	Distance	The open end of an air relief pipe from automatic valves shall be extended a Distance >= 1.0 ft above grade and provided with a screened, downward-facing elbow. The pipe from a manually operated valve shall be extended to the top of the pit. Use of manual air relief valves is recommended wherever possible. [Recommended Standards for Water Works 8.4.2] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-11	Pressure	Pipes shall not be installed unless all points of the distribution system remain designed for ground level Pressure >= 20 psi under all conditions of flow. [Recommended Standards for Water Works 8.1.1] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-12	Pressure	Pressure >= 30 psi must be available on the discharge side of all meters. [401 KAR 8:100 Section 4(2)] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.

Columbia/Adair Utilities District Facility Requirements

Activity ID No.: APE20120001

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Limitation Requirements:

Condition No.	Parameter	Condition	
L-13	Residual Disinfection	New or relocated water lines shall be thoroughly disinfected (in accordance with AWWA Standard C651) upon completion of construction and before being placed into service. To disinfect the new or relocated lines use chlorine or chlorine compounds in such amounts as to produce an initial disinfectant concentration of at least 50 ppm and a Residual Disinfection >= 25 ppm at the end of 24 hours. Follow the line disinfection with thorough flushing and place the lines into service if, and only if, Coliform monitoring applicable to the line does not show the presence of Coliform. If Coliform is detected, repeat flushing of the line and Coliform monitoring. If Coliform is still detected, repeat disinfection and flushing as if the line has never been disinfected. Continue the described process until monitoring does not show the presence of Coliform. [401 KAR 8:150 Section 4(1), Recommended Standards for Water Works 8.5.6] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.	
L-14	Velocity	Each blow-off or flush hydrant shall be sized so that Velocity >= 2.5 ft/sec can be achieved in the water main served by the blow-off or hydrant during flushing. [Recommended Standards for Water Works 8.1.6.b, 401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.	
L-15	Velocity	Except in underserved areas, each blow-off or fire hydrant shall be sized so that Velocity >= 2.5 ft/sec can be achieved in the water main served by the blow-off or hydrant during flushing. Based on the hydraulic analysis/data submitted, the areas served by the following extension(s) are considered to be underserved: a) Providence Road b) Knifley Connection This designation indicates that without improvements to the existing infrastructure, future extensions may not be able to provide the required minimum pressure of 30 psi on the discharge side of customers' meters. Without improvements to the infrastructure, future extensions may be denied. The underserved designation may be used to help prioritize areas under the Governor's 2020 plan for funding future infrastructure improvements. [Recommended Standards for Water Works 8.1.6.b, 401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.	

Columbia/Adair Utilities District Facility Requirements

Activity ID No.: APE20120001

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PORT0000000044 (continued):

Monitoring Requirements:

Condition No.	Parameter	Condition		
M-1	leaks	The presence or absence of leaks monitored by physical testing as needed shall be determined in all types of installed pipe. Pressure testing and leakage testing shall be in accordance with the latest edition of AWWA Standard C600. [Recommended Standards for Water Works 8.5.5] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.		
Narrative	e Requirements:			
Asbes	stos (Friable):			
Condition				
No.	Condition			
T-1	Asbestos (Friable): If the existing water line to be tapped is asbestos concrete, then the contractor shall conform to OSHA regulations governing the handling of hazardous waste during the process of tapping the asbestos concrete line. Pieces of asbestos concrete resulting from the tap shall be double bagged, placed in a rigid container and disposed of in an approved landfill. [401 KAR 8:100 Section 1(7)]			
Addit	ional Limitations:			
Condition				
No.	Condition			
T-2	Additional Limitations: Water line installation shall be in accordance with AWWA standards or manufacturer recommendations. [Recommended Standards for Water Works 8.5.1]			
T-3	Additional Limitations: Pipes, fittings, valves and fire hydrants shall conform to the latest standards issued by the AWWA or NSF (if such standards exist). PVC and PE piping used must be certified to ANSI/NSF Standard 61. [Recommended Standards for Water Works 8.0.1]			
T-4	Additional Limitations: At high points in water lines, where air can accumulate, provisions shall be made to remove the air by means of hydrants or air relief valves. Automatic air relief valves shall not be used in situations where manhole or chamber flooding may occur. [Recommended Standards for Water Works 8.4.1]			

Columbia/Adair Utilities District Facility Requirements

Activity ID No.: APE20120001

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Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-5	Additional Limitations: All tees, bends, plugs and hydrants shall be provided with reaction blocking, tie rods or joints designed to prevent movement. [Recommended Standards for Water Works 8.5.4]
T-6	Additional Limitations: A flush hydrant or blow-off shall be required at the end of each dead end line. [Recommended Standards for Water Works 8.1.6]
T-7	Additional Limitations: For each flush hydrant, auxiliary valves shall be installed in the hydrant lead pipe. [Recommended Standards for Water Works 8.3.3]
T-8	Additional Limitations: No flushing device, blow-off, or air relief valve shall be directly connected to any sewer. Chambers, pits or manholes containing valves, blow-offs, meters, or other such appurtenances shall not be directly connected to any storm drain or sanitary sewer. Such chambers, pits or manholes shall be drained to absorptions pits underground or to the surface of the ground where they are not subject to flooding by surface water. [Recommended Standards for Water Works 8.1.6, Recommended Standards for Water Works 8.4.3]
T-9	Additional Limitations: If water lines are installed or replaced in areas of organic contamination or in areas within 200 ft of underground or petroleum storage tanks, ductile iron or other nonpermeable materials shall be used in all portions of the water line installation or replacement. [401 KAR 8:100 Section 1(5)(d)6, Recommended Standards for Water Works 8.0.2]
T-10	Additional Limitations: No water pipe shall pass through or come in contact with any part of a sewer manhole. [Recommended Standards for Water Works 8.6.6]
T-11	Additional Limitations: If water lines cross a stream or wetland, the provisions in the attached Water Quality Certification shall apply. If you have any questions please contact the Water Quality Certification Supervisor of the Water Quality Branch at (502) 564-2225. [401 KAR 8:100 Section 1(7)]
T-12	Additional Limitations: A fire hydrant or blow-off shall be required at the end of each dead end line. [Recommended Standards for Water Works 8.1.6]

Columbia/Adair Utilities District Facility Requirements

Activity ID No.: APE20120001

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Narrative	Neumle	11101112

Additional Limitations:

Condition No.	Condition
T-13	Additional Limitations: For each fire hydrant, auxiliary valves shall be installed in the hydrant lead pipe. [Recommended Standards for Water Works 8.3.3]
T-14	Additional Limitations: If a fire sprinkler system is to be installed, a double check detector assembly approved for backflow prevention shall be utilized. The double check detector assembly of the system shall be accessible for testing. [401 KAR 8:100 Section 1(7)]

Subfluvial Pipe Crossings:

Condition					
No.	Condition				
	waterman various and a second		 MANAGE AND ADDRESS OF THE PARTY		

T-15 Subfluvial Pipe Crossings:

For subfluvial pipe crossings, a floodplain construction permit will not be required pursuant to KRS 151.250 if the following requirements of 401 KAR 4:050 Section 2 are met.

- 1) No material may be placed in the stream or in the flood plain of the stream to form construction pads, coffer dams, access roads, etc. during construction of pipe crossings.
- 2) Crossing trenches shall be backfilled as closely as possible to the original contour.
- 3) All excess material resulting from construction displacement in a crossing trench shall be disposed of outside the flood plain.
- 4) For erodible channels, there shall be at least 30 inches of backfill on top of all pipe or conduit points in the crossing.
- 5) For nonerodible channels, pipes or conduits in the crossing shall be encased on all sides by at least 6 inches of concrete with all pipe or conduit points in the crossing at least 6 inches below the original contour of the channel. [401 KAR 8:100 Section 1(7)]

T-16 Subfluvial Pipe Crossings:

For subfluvial pipe crossings greater than 15 feet in width,

- 1) the pipe shall be of special construction, having flexible, restrained, or welded watertight joints, and
- 2) valves shall be provided at both ends of water crossings so that the section can be isolated for testing or repair.

Valves shall

- a) be easily accessible,
- b) not be subject to flooding, and
- c) if closest to the supply source, be in a manhole with permanent taps made on each side of the valve to allow insertion of a small meter to determine leakage and for sampling purposes. [Recommended Standards for Water Works 8.7.2]

Columbia/Adair Utilities District Facility Requirements

Activity ID No.: APE20120001

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PORT0000000045 (Phase 11-2 WLE & East KY 80 WST Replacement) 250 gpm (180 feet TDH) Booster Pump Station:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Pressure	Pump stations shall be located or controlled so that intake Pressure >= 20 psi is maintained during normal pump operation. [Recommended Standards for Water Works 6.4.b] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-2	Pressure	Pump stations shall be located or controlled so that an automatic cutoff or a low pressure controller maintains a Pressure >= 10 psi in the suction line under all operating conditions. [Recommended Standards for Water Works 6.4.c] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-3	Residual Disinfection	New pumps shall be thoroughly disinfected (in accordance with AWWA Standard C651) upon completion of construction and before being placed into service. To disinfect new pumps use chlorine or chlorine compounds in such amounts as to produce an initial disinfectant concentration of at least 50 ppm and a Residual Disinfection >= 25 ppm at the end of 24 hours. Follow the disinfection with thorough flushing and place each pump into service if, and only if, Coliform monitoring applicable to the pump does not show the presence of Coliform. If Coliform is detected, repeat flushing of the pump and Coliform monitoring. If Coliform is still detected, repeat disinfection and flushing as if the pump has never been disinfected. Continue the described process until monitoring does not show the presence of Coliform. [401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-4	Slope	Pumping facilities shall be located and designed to maintain the sanitary quality of pumped water. As part of this, all pump station floors shall have Slope >= 3 in per 10 ft to a suitable drain. [Recommended Standards for Water Works 6.2.e, Recommended Standards for Water Works 6.0, Recommended Standards for Water Works 6.1] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-5	Air Change Rate	Ventilation shall conform to existing local and/or state codes. At a minimum forced ventilation shall produce an Air Change Rate >= 6 air change(s)/hr. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 6.2.5] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.

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PORT0000000045 (continued):

Limitation Requirements:

Condition No.	Parameter	Condition	
L-6	Height	Pumping stations shall not be subject to flooding. To this end, 1) grading around stations shall lead surface drainage away and 2) stations shall be elevated or protected to a Height >= 3 ft above the highest of the following: a) the 100-year flood elevation, or b) the highest recorded flood elevation. [Recommended Standards for Water Works 6.1.1, Recommended Standards for Water Works 6.0] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.	
L-7	Height	When a pump station has pits or compartments which must be entered, stairways or ladders shall be provided between all floors. Stairs shall have risers with a Height <= 9 in, handrails on both sides, and treads with non-slip material wide enough for safety. [Recommended Standards for Water Works 6.2.3] This requirement is applicable during the following months: All Year. Statistical basis: Maximum.	
	e Requirements:		
Condition			
No.	Condition		
T-1	Additional Limitations: Pumping stations shall be so located that the proposed site will meet the requirements for hydraulics of the system. [Recommended Standards for Water Works 6.1]		
T-2	Additional Limitations: Pumping stations shall be readily accessible at all times for servicing and repairs. [Recommended Standards for Water Works 6.1.1.b, Recommended Standards for Water Works 6.4.3]		
T-3	Additional Limitations: Pumping stations shall be designed to prevent vandalism and protect against entrance of animals or unauthorized persons. [Recommended Standards for Water Works 6.1.1.d]		
T-4	Additional Limitations: Pumping stations shall be of durable construction with outward-opening doors. [Recommended Standards for Water Works 6.2.b]		

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PORT0000000045 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-5	Additional Limitations: Pumping stations shall be fire and weather resistant. [Recommended Standards for Water Works 6.2.b]
T-6	Additional Limitations: Pumping stations shall have suitable pump gland discharges so that drainage from the glands is not onto the floor. [Recommended Standards for Water Works 6.2.f]
T-7	Additional Limitations: If underground structures are present at pumping stations, they shall waterproofed. [Recommended Standards for Water Works 6.2.d]
T-8	Additional Limitations: Pumping stations shall have adequate space for the installation of additional pumps. [Recommended Standards for Water Works 6.2.a]
T-9	Additional Limitations: Pumping stations shall have adequate space for the safe servicing of all equipment. [Recommended Standards for Water Works 6.2.a]
T-10	Additional Limitations: Pump stations shall have crane-ways, hoist beams, eyebolts, or other adequate facilities for servicing or removal of pumps, motors or other heavy equipment. [Recommended Standards for Water Works 6.2.2.a]
T-11	Additional Limitations: Pump stations shall have openings as needed for removal of heavy or bulky equipment. [Recommended Standards for Water Works 6.2.2.b]
T-12	Additional Limitations: Pump stations shall have a convenient tool board, or other facilities as needed, for proper maintenance of equipment. [Recommended Standards for Water Works 6.2.2.c]
T-13	Additional Limitations: In areas where excess moisture could cause safety hazards or damage to equipment, dehumidification shall be provided. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 6.2.6]
T-14	Additional Limitations: Electrical controls shall be located above grade. [Recommended Standards for Water Works 6.6.5]

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PORT0000000045 (continued):

Narrative Requirements:

	tional Limitations:
Condition No.	Condition
T-15	Additional Limitations: All electrical equipment and work shall conform with the applicable state and local electrical codes and the National Electrical Code. [Recommended Standards for Water Works 6.5, Recommended Standards for Water Works 6.2.7]
T-16	Additional Limitations: Pump stations shall be adequately lighted throughout. [Recommended Standards for Water Works 6.2.7]
T-17	Additional Limitations: All automatic pump stations shall be provided with automatic signaling apparatus which will report when the station is out of service. All remote controlled stations shall be electrically operated and controlled and shall have signaling apparatus of proven performance. [Recommended Standards for Water Works 6.5]
T-18	Additional Limitations: Automatic or remote control pump stations shall be located or shall have control devices setup so that the range between start and cutoff pressure prevents excessive pump cycling. [Recommended Standards for Water Works 6.4.d]
T-19	Additional Limitations: Equipment shall be provided or other arrangements made to prevent surge pressures from activating controls which switch on pumps or activate other equipment outside the normal design cycle of operation. [Recommended Standards for Water Works 6.6.5]
T-20	Additional Limitations: Provisions shall be made to prevent energizing the motor in the event of a backspin cycle. [Recommended Standards for Water Works 6.6.5]
T-21	Additional Limitations: Pump stations shall be provided with enough heat to prevent freezing of equipment or treatment processes. [Recommended Standards for Water Works 6.2.4]
T-22	Additional Limitations: Pump stations shall have at least 2 pumps. Pumps shall be sized so that if any single pump is out service, the remaining pump or pumps shall be capable of providing the peak demand on the station. [Recommended Standards for Water Works 6.3, Recommended Standards for Water Works 6.4.1]
T-23	Additional Limitations: Provisions shall be made for pump alternation. [Recommended Standards for Water Works 6.6.5]

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PORT0000000045 (continued):

Narrative Requirements:

Additional Limitations: Condition Condition No. Additional Limitations: T-24 Pumps shall have ample capacity to supply the peak demand against the required distribution system pressure without dangerous overloading, be driven by prime movers able to meet the maximum horsepower condition of the pumps, be provided readily available spare parts and tools, and be served by control equipment that is properly protected against temperatures to be encountered. [Recommended Standards for Water Works 6.3] Additional Limitations: T-25 Pumps, their prime movers and accessories shall be controlled in such a manner that they will operate at rated capacity without dangerous overload. [Recommended Standards for Water Works 6.6.51 T-26 Additional Limitations: Pump stations shall be located or controlled so that a bypass is available. [Recommended Standards for Water Works 6.4.e] T-27 Additional Limitations: Pump stations shall contain indicating and totalizing metering of the total water pumped. Each pump shall have a standard pressure gauge on its discharge line and a compound gauge on its suction line. b) Each pump should have a means for measuring the instantaneous volume per time discharge. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 6.4.2, Recommended Standards for Water Works 6.6.3] Additional Limitations: T-28 Pumps shall be adequately valved to permit satisfactory operation, maintenance and repair of the equipment. Each pump shall have a positive-acting check valve on the discharge side between the pump and the shut-off valve. [Recommended Standards for Water Works 6.6.1]

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PORT0000000045 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-29	Additional Limitations: Piping for pumps shall, in general, 1) be designed so that the friction losses will be minimized, 2) not be subject to contamination, 3) have watertight joints, 4) be protected against surge or water hammer, 5) be provided with restraints where necessary, and 6) a) be such that each pump has an individual suction line or 6) b) be manifolded such that the lines insure similar hydraulic and operating conditions. [Recommended Standards for Water Works 6.6.2]
T-30	Additional Limitations: To ensure continuous service when the primary power is interrupted, power supplied to pump stations shall be a) from at least 2 independent sources or b) from a primary source with a standby or auxiliary source provided. If standby power is provided by onsite generators or engines, the fuel storage and fuel line must be designed to protect the water supply from contamination. [Recommended Standards for Water Works 6.6.6]

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STOR000000006 (Phase 11-2 WLE & East KY 80 WST Replacement) 300,000 Gallon Water Storage Tank:

Limitation Requirements:

Condition		Condition							
No.	Parameter								
L-1	Residual Disinfection	New water tanks shall be thoroughly disinfected (in accordance with AWWA Standard C651) upon completion of construction as before being placed into service. To disinfect new tanks use chlorine or chlorine compounds in such amounts as to produce an initial disinfectant concentration of at least 50 ppm and a Residual Disinfection >= 25 ppm at the end of 24 hours. Follow the disinfection with thorough flushing and place tanks into service if, and only if, Coliform monitoring applicable to the tank does not show the presence of Coliform. If Coliform is detected, repeat flushing of the tank and Coliform monitoring. If Coliform is still detected, repeat disinfection and flushing as if the tank has never been disinfected. Continue the described process until monitoring does not show the presence of Coliform. [401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis Minimum.							
L-2	Volume	Hydropneumatic (pressure) tanks should have a gross Volume >= 1000 percent of the largest supply pump's per minute rating (i.e. if the largest pump connected to a pressure tank has a rating of 250 gpm, then the size of the pressure tank should be at least 2,500 gallons). The minimum tank volume shall be an even higher percentage (based on the necessary chlorine detention time) if a water system requires a chlorine detention time greater than the detention time that the related treatment/distribution facilities and this limit otherwise provide. [Recommended Standards for Water Works 7.2.2] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.							
Narrat	ive Requirements:								
	ditional Limitations:								
Condition	on								
No.	Condition								
T-1	Additional Limitations: Hydropneumatic (pressure) tanks shall be the only water storage structure in the water distribution system. [Recommended Standards for Water Works 7.2]								
T-2	Additional Limitations: Hydropneumatic (pressure)	Additional Limitations: Hydropneumatic (pressure) tanks shall serve no more than 50 living units. [401 KAR 8:100 Section 1(7)]							
T-3	Additional Limitations: Hydropneumatic (pressure) tanks shall not provide fire protection. [Recommended Standards for Water Works 7.2]								

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STOR0000000006 (continued):

Narrative Requirements:

Additional Limitations:

Standards for Water Works 7.0.71

Condition Condition No. Additional Limitations: T-4 The materials and designs used for tanks shall provide stability and durability as well as protection for the quality of the stored water. Steel structures shall follow the AWWA standards wherever they are applicable. Other materials of construction are acceptable when properly designed to meet the requirements in this permit. [Recommended Standards for Water Works 7.0] Additional Limitations: T-5 The safety of employees must be considered in the design of any storage structure. The design of storage structures shall meet or exceed the minimum requirements of pertinent safety laws and regulations in the areas where the structures are constructed. [Recommended Standards for Water Works 7.0.12] Additional Limitations: T-6 Hydropneumatic (pressure) tanks shall meet ASME code requirements for the construction and installation of unfired pressure vessels or an equivalent requirement of state and local laws and regulations. [Recommended Standards for Water Works 7.2] Additional Limitations: T-7 Fencing, locks on access manholes, and other necessary precautions shall be provided to prevent trespassing, vandalism, and sabotage. [Recommended Standards for Water Works 7.0.4] Additional Limitations: T-8 Completely house the tank and locate it above the normal ground surface. [Recommended Standards for Water Works 7.2.1] Additional Limitations: T-9 All tanks and their appurtenances shall be designed to prevent freezing. [Recommended Standards for Water Works 7.0.13] Additional Limitations: T-10 The roof and sidewalls of each tank must be watertight with no openings except properly constructed drains, control ports, and piping for inflow and outflow. Any pipes running through the roof or sidewall must be welded. [Recommended Standards for Water Works 7.0.10] Additional Limitations: T-11 Tank drains shall discharge to the ground surface at a drainage structure inlet or splash plate. [Recommended Standards for Water Works 7.3.2, Recommended

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STOR0000000006 (continued):

Narrative Requirements:

Additional Limitations:					
Condition No.	Condition				
T-12	Additional Limitations: No drain on a tank may have a direct connection to a sewer or storm drain. [Recommended Standards for Water Works 7.0.5, Recommended Standards for Water Works 7.0.7, Recommended Standards for Water Works 7.3.2]				
T-13	Additional Limitations: Tanks shall be designed to facilitate turn over of water. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 7.0.6]				
T-14	Additional Limitations: Tanks shall have sufficient capacity, as determined from engineering studies, to meet domestic demands. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 7.0.1]				
T-15	Additional Limitations: Hydropneumatic (pressure) tanks shall have 1) bypass piping, to permit operation of the water distribution system while the tank is being repaired or painted, 2) a drain, and 3) control equipment. The control equipment shall include a) a pressure gauge, b) a water sight glass, c) an automatic or manual blow-off, d) a means for adding air, and e) pressure operated start-stop controls for the pumps. [Recommended Standards for Water Works 7.2.3]				
T-16	Additional Limitations: Tank discharge pipes shall be located in a manner that will prevent the flow of sediment into the distribution system. [Recommended Standards for Water Works 7.0.15]				
T-17	Additional Limitations: Appropriate sampling tap(s) shall be provided to facilitate collection of water samples for both bacteriologic and chemical analyses. [Recommended Standards for Water Works 7.0.19]				

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STOR0000000006 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-18	Additional Limitations: Adequate controls shall be provided to maintain levels in storage structures. The level controls shall be acceptable to the Division of Water. Level indicating devices should be provided at a central location. Overflow and low-level warnings or alarms should be located at places in the community where they will be under responsible surveillance 24 hrs a day. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 7.3.3]
T-19	Additional Limitations: Proper protection shall be given to metal surfaces by a) paints or other protective coatings and/or b) cathodic protective devices. [Recommended Standards for Water Works 7.0.17]
T-20	Additional Limitations: If cathodic protection is utilized, a) competent technical personnel should design and install the protection and b) a maintenance contract should be provided. [Recommended Standards for Water Works 7.0.17]
T-21	Additional Limitations: If the interior of the tank is coated or lined, the coating or lining shall be of a type approved by the Division of Water for use in contact with potable water. [401 KAR 8:020 Section 2(19)]
T-22	Additional Limitations: Paints and coatings a) shall meet NSF standard 61, b) shall be acceptable to the Division of Water, c) shall be properly applied and cured, and d) shall not transfer any substance to the water which will be toxic or cause tastes or odors (following curing). [Recommended Standards for Water Works 7.0.17]

EXHIBIT 1 ADAIR COUNTY WATER DISTRICT CASH FLOW ANALYSIS						December 31 Year End						
Operating Revenues	Audited 2007	% Change	Audited 2008	% Change	Audited 2009	% Change	Audited 2010	Projected 2011	Projected 2012	Projected 2013	Projected 2014	
Revenues Columbia Revenues (partial year)	2,036,616	8%	2,195,154	3%	2,264,861	4%	2,366,106	2,437,089 425,529	3,361,259	4,167,126	4,517,164	
Additional Revenues from Rate Increase								420,023	685,697	225,025	-	
Additional Revenues from new Customers			0.405.454						19,332			
Total Revenues	2,036,616	8%	2,195,154	3%	2,264,861	4%	2,366,106	2,862,618	4,066,288	4,392,150	4,517,164	
Operating Expenses												
Operating Expenses	1,717,197	8%	1,849,797	5%	1,950,460	8%	2,111,937	2,597,784	3,327,673	3,494,057	3,668,760	
Depreciation	482,128	3%	498,759	12%	559,313	12%	624,893	768,250	972,465	991,914	1,011,752	
Replacement Reserve									10,000	17,500	17,500	
Total Expenses	2,199,325	7%	2,348,556	7%	2,509,773	9%	2,736,830	3,366,034	4,310,138	4,503,471	4,698,012	
Net Operating Income	(162,709)	-6%	(153,402)	60%	(244,912)	51%	(370,724)	(503,416)	(243,850)	(111,320)	(180,848)	
Non-Operating Income and Expenses												
Interest on Investments	31,514	-24%	24,009	-32%	16,411	-79%	3,512	3,512	4,000	4,000	4,000	
Lease (Operating Agreement - Columbia)							28,570	14,285	-	-	-	
Other Operating Income (Expense)	7,268_	-20%	5,847	-13%	5,102	170%	13,783	5,000	5,000	5,000	5,000	
Total Non-Operating Income & Expenses	38,782	-23%	29,856	-28%	21,513	113%	45,865	2040000%	9,000	9,000	9,000	
Add Non-Cash Expenses												
Depreciation	482,128	3%	498,759	12%	559,313	12%	624,893	768,250	972,465	991,914	1,011,752	
Cash Available for Debt Service	358,201	5%	375,213	-10%	335,914	-11%	300,034	285,234	737,615	889,594	839,905	
Debt Service (enter as positive #'s)												
Existing Debt	299,088		328,507		399,965		471,712	426,994	427,607	447,970	445,329	
Assumed Debt								31,108	32,060	31,513	31,919	
Anticipated RD Debt (Sparksville)							¥	54,713	54,713	70,711	70,711	
KIA Loan (F10-01) - Sparksville project								20,000	135,582	231,164	231,164	
Proposed KIA Loan	***************************************								9,000	37,049	37,049	
Total Debt Service	299,088		328,507		399,965		471,712	532,814	658,962	818,407	816,172	
Income After Debt Service	59,113		46,706		(64,051)		(171,678)	(247,580)	78,653	71,187	23,733	
Debt Coverage Ratio	1.20		1.14		0.84		0.64	0.54	1.12	1.09	1.03	
									25.5			
RATE INCREASE REQUIRED - Proposed									20%	5%_		