

Rubin & Hays

ATTORNEYS AT LAW

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

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

July 10, 2008

RECEIVED

JUL 14 2008

**PUBLIC SERVICE
COMMISSION**

Ms. Stephanie Stumbo
Executive Director
Kentucky Public Service Commission
P.O. Box 615
Frankfort, Kentucky 40602

2008-273

Re: Letcher County Water and Sewer District - Kentucky Public Service Commission
Application for a CPCN for a Water System Improvements Project - **Smoot Creek
Project**

Dear Ms. Stumbo:

Enclosed please find the original and ten (10) copies of the Application of the Letcher County Water and Sewer District for a Certificate of Public Convenience and Necessity to construct a water system improvements 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 Bell Engineers, Inc., on the Project, two of which are being forwarded by said Engineers.

Sincerely,

Rubin & Hays

By


W. Randall Jones

WRJ:jl
Enclosures

cc: Ms. Jackie Joseph, LCWSD
Stephen Caudill, Bell Engineering

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED
JUL 14 2008
PUBLIC SERVICE
COMMISSION

In the matter of:

APPLICATION OF THE LETCHER COUNTY WATER)
AND SEWER DISTRICT FOR A CERTIFICATE)
OF PUBLIC CONVENIENCE AND NECESSITY TO)
CONSTRUCT A WATERWORKS IMPROVEMENTS)
PROJECT PURSUANT TO KRS 278.020 AND 278.300)

Case No. _____

273

APPLICATION

The Letcher County Water and Sewer District (the "District"), by counsel, pursuant to KRS 278.020, petitions the Commission for a certificate of public convenience and necessity to construct a waterworks improvement project. The following information is filed in accordance with the Commission's regulations:

1. The District's office address is P.O. Box 827, Whitesburg, Kentucky 41858. Its principal officers are listed in its 2007 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 system and its property stated at original cost by accounts is contained in its 2007 Annual Report, which is incorporated by reference pursuant to 807 KAR 5:001 Section (5)(5). All required normal financial schedules and other data are in the Annual Report;
4. The Smoot Creek Water Improvements Project (the "Project") consists of the construction and installation of approximately 18,200 linear feet of 8 inch water line; 5,500 linear

feet of 4 inch water line; and 8,114 linear feet of 3 inch water line and appurtenances to serve approximately 125 households in the Smoot Creek area of Letcher County;

5. The Project is in the public interest and will improve the District's system and provide potable water to approximately 125 households that currently rely on wells, cisterns and springs for potable water;

6. The total project cost is approximately \$880,235, as forth in the As-Bid Final Project Budget attached hereto as **Exhibit "A"**;

7. The District has obtained all of the easements for the Project;

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

9. Based on these facts, the District believes that it is in the public interest that this certificate be granted and that the plan of financing be authorized;

10. Copies of the certified bid tabulations are attached hereto as **Exhibit "B"**;

11. The following information is provided in response to 807 KAR 5:001 Section (8)(3);

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 (9)(2);

a. Facts relied upon to show that the Project is in the public interest: The Project will provide water service to approximately 125 households that currently rely on wells, cisterns and springs for potable water;

b. No new franchises are required. Copies of the permits are attached hereto as **Exhibit "C"**;

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 attached hereto;

e. The construction costs will be funded from the proceeds of a Coal Severance grant in the amount of \$750,000 and a contribution from the Letcher County Fiscal Court for the balance;

f. The estimated cost of operation of the system after Project completion is attached hereto as **Exhibit "D"**;

WHEREFORE, the Applicant, Letcher County Water and Sewer District requests that the Public Service Commission of Kentucky grant to the Applicant a certificate of public convenience and necessity permitting the Applicant to construct a water system improvement project.

Letcher County Water and Sewer District

By  _____
Chairman

Rubin & Hays

By  _____
W. Randall Jones
Kentucky Home Trust Building
450 South Third Street
Louisville, Kentucky 40202

AS-BID PROJECT BUDGET

SMOOT CREEK WATER SYSTEM IMPROVEMENTS

Cost Classification	KIA	Funding Source 1	Funding Source 2	Funding Source 3	Funding Source 4	Funding Source 5	Local Funds	Unfunded Costs	Total
1 Administrative Expenses (1)	\$30,000.00								\$30,000.00
2 Legal Expenses									\$0.00
3 Land, Appraisals, Easements									\$0.00
4 Relocation Expense & Payments									\$0.00
5 Planning (2)	\$7,500.00								\$7,500.00
6 Engineering Fees - Design/Bidding	6,667.00								\$6,667.00
7 Engineering Fees - Construction	13,334.00								\$13,334.00
8 Engineering Fees - Inspection	45,036.00								\$45,036.00
9 Construction	706,998.00								\$706,998.00
10 Equipment									\$0.00
11 Contingency	70,700.00								\$70,700.00
12 Other - Interest									\$0.00
Total	880,235.00	0.00	0.00	0.00	0.00	\$0.00	\$0.00	\$0.00	\$880,235.00

Funding Sources	Amount	Date Committed
1 Kentucky Infrastructure Authority	\$880,235.00	
2		
3		
4		
Total	\$880,235.00	

Local Funding Sources	Amount	Date Committed
1		
2		
3		
Total		

Total Funding \$880,235.00

CONTRACT 519-07-04 WATER SYSTEM IMPROVEMENTS
SMOOT CREEK AREA
LETCHER COUNTY WATER AND SEWER DISTRICT
LETCHER COUNTY, KENTUCKY

We certify that the following is a true and complete tabulation of all bids received by the Letcher County Water and Sewer District, Whitesburg, Kentucky, on June 19, 2008, for the titled project.

BELL ENGINEERING

Stephen H. Caudill
Steve H. Caudill, P.E.

ITEM NO.	ITEM	QUANTITY	UNIT	Engineer's Opinion of Probable Project Cost		Ronnie Mullins & Sons, Inc. P.O. Box 427 Elkhorn City, Kentucky 41522		Kenney, Inc. P.O. Box 1305 Mt. Sterling, Kentucky 40353		K. Carrender Construction Co. 200 Ringgold Road Somerset, Kentucky 42503		Akins Excavating Co., Inc. 182 Busy Lane Corbin, Kentucky 40701		Music Construction, Inc. 2510 Margaret Ann Drive Mt. Sterling, Kentucky 40353	
				UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
Division "A" - Water Main															
1	8-inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Copper Tracer Wire, Unclassified Excavation, Complete	18,200	L.F.	\$19.00	\$345,800.00	\$17.00	\$309,400.00	\$16.25	\$295,750.00	\$16.00	\$291,200.00	\$18.30	\$333,060.00	\$17.00	\$309,400.00
2	8-inch Ductile Iron Pipe, Class 350, Furnishing, Trenching, Bedding, Laying and Backfilling, Unclassified Excavation, Complete	18,200	L.F.	\$25.00	XXXXXXX	\$29.00	XXXXXXX	\$31.00	XXXXXXX	\$26.75	XXXXXXX	\$28.30	XXXXXXX	\$35.00	XXXXXXXXXX
3	4-inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Copper Tracer Wire, Unclassified Excavation, Complete	5,500	L.F.	\$14.00	\$77,000.00	\$7.25	\$39,875.00	\$8.80	\$48,400.00	\$9.65	\$53,075.00	\$12.40	\$68,200.00	\$8.50	\$46,750.00
4	3-inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Copper Tracer Wire, Unclassified Excavation, Complete	8,114	L.F.	\$13.00	\$105,482.00	\$5.50	\$44,627.00	\$7.50	\$60,855.00	\$8.85	\$71,808.90	\$11.70	\$94,933.80	\$7.90	\$64,100.60
5	8-inch Mechanical Joint Resilient Seated Gate Valve And Box, Including Concrete Valve Box Collar, Complete	10	EA.	\$950.00	\$9,500.00	\$1,200.00	\$12,000.00	\$1,100.00	\$11,000.00	\$900.00	\$9,000.00	\$1,149.00	\$11,490.00	\$1,200.00	\$12,000.00
6	4-inch Mechanical Joint Resilient Seated Gate Valve And Box, Including Concrete Valve Box Collar, Complete	5	EA.	\$500.00	\$2,500.00	\$700.00	\$3,500.00	\$660.00	\$3,300.00	\$500.00	\$2,500.00	\$621.00	\$3,105.00	\$700.00	\$3,500.00
7	3-inch Mechanical Joint Resilient Seated Gate Valve And Box, Including Concrete Valve Box Collar, Complete	6	EA.	\$400.00	\$2,400.00	\$650.00	\$3,900.00	\$605.00	\$3,630.00	\$450.00	\$2,700.00	\$565.00	\$3,390.00	\$500.00	\$3,000.00
8	Ductile Iron Compact Mechanical Joint Pipe Fittings, Furnish and Install, Including Concrete Blocking, Complete	1,000	Lbs	\$5.00	\$5,000.00	\$5.00	\$5,000.00	\$2.75	\$2,750.00	\$5.00	\$5,000.00	\$5.00	\$5,000.00	\$4.00	\$4,000.00
9	5/8-inch x 3/4-inch Meter Setting, Including PRV, Meter, Meter Box, Cover, Corporation Stop, Saddle, Tap, and Touch Read Assembly, Furnish and Install, Complete	70	Each	\$950.00	\$66,500.00	\$800.00	\$56,000.00	\$852.50	\$59,675.00	\$785.00	\$54,950.00	\$732.00	\$51,240.00	\$850.00	\$59,500.00
10	5/8-inch x 3/4-inch Meter Setting, Including Meter, Meter Box, Cover, Corporation Stop, Saddle, Tap, and Touch Read Assembly, Furnish and Install, Complete	55	Each	\$800.00	\$44,000.00	\$700.00	\$38,500.00	\$798.00	\$43,890.00	\$700.00	\$38,500.00	\$665.00	\$36,575.00	\$750.00	\$41,250.00
11	1-inch Meter Setting, Including PRV, Meter, Meter Box, Cover, Corporation Stop, Saddle, Tap, and Touch Read Assembly, Furnish and Install, Complete	2	Each	\$2,500.00	\$5,000.00	\$1,000.00	\$2,000.00	\$1,100.00	\$2,200.00	\$1,200.00	\$2,400.00	\$1,017.00	\$2,034.00	\$1,500.00	\$3,000.00
12	3/4-inch Polyethylene Service Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, or by Jacking, Copper Tracer Wire, Unclassified Excavation, Complete	6,250	L.F.	\$10.00	\$62,500.00	\$7.00	\$43,750.00	\$4.40	\$27,500.00	\$11.85	\$74,062.50	\$7.00	\$43,750.00	\$6.00	\$37,500.00
13	1-inch Polyethylene Service Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, or by Jacking, Copper Tracer Wire, Unclassified Excavation, Complete	200	L.F.	\$12.00	\$2,400.00	\$8.00	\$1,600.00	\$5.50	\$1,100.00	\$12.00	\$2,400.00	\$11.00	\$2,200.00	\$6.00	\$1,200.00

ITEM NO.	ITEM	QUANTITY	UNIT	Engineer's Opinion of Probable Project Cost		Ronnie Mullins & Sons, Inc.		Kenney, Inc.		K. Carrender Construction Co.		Akins Excavating Co., Inc.		Music Construction, Inc.	
				UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
14	1 1/2-inch Corporation Stop, Saddle, and Tap, Furnish and Install Complete	2	Each	\$300.00	\$600.00	\$350.00	\$700.00	\$110.00	\$220.00	\$150.00	\$300.00	\$150.00	\$300.00	\$150.00	\$300.00
15	10-inch x 0.250-inch Steel Cover Pipe, Including Casing Spacers and End Seals, Furnish and Install, Complete (by open cut or boring)	130	L.F.	\$50.00	\$6,500.00	\$50.00	\$6,500.00	\$71.50	\$9,295.00	\$35.00	\$4,550.00	\$60.00	\$7,800.00	\$75.00	\$9,750.00
16	Boring or Jacking for 10-inch Steel Cover Pipe, Unclassified Excavation	130	L.F.	\$100.00	\$13,000.00	\$90.00	\$11,700.00	\$165.00	\$21,450.00	\$85.00	\$11,050.00	\$78.00	\$10,140.00	\$150.00	\$19,500.00
17	12-inch x 0.250-inch Steel Cover Pipe, Including Casing Spacers and End Seals, Furnish and Install, Complete (by open cut or boring)	30	L.F.	\$60.00	\$1,800.00	\$58.00	\$1,740.00	\$88.00	\$2,640.00	\$55.00	\$1,650.00	\$65.00	\$1,950.00	\$75.00	\$2,250.00
18	Boring or Jacking for 12-inch Steel Cover Pipe, Unclassified Excavation	30	L.F.	\$110.00	\$3,300.00	\$100.00	\$3,000.00	\$176.00	\$5,280.00	\$95.00	\$2,850.00	\$78.00	\$2,340.00	\$150.00	\$4,500.00
19	14-inch x 0.281-inch Steel Cover Pipe, Including Casing Spacers and End Seals, Furnish and Install, Complete (by open cut or boring)	160	L.F.	\$75.00	\$12,000.00	\$50.00	\$8,000.00	\$99.00	\$15,840.00	\$55.00	\$8,800.00	\$70.00	\$11,200.00	\$75.00	\$12,000.00
20	Boring or Jacking for 14-inch Steel Cover Pipe, Unclassified Excavation	160	L.F.	\$130.00	\$20,800.00	\$110.00	\$17,600.00	\$187.00	\$29,920.00	\$95.00	\$15,200.00	\$80.00	\$12,800.00	\$150.00	\$24,000.00
21	Fiberglass or Concrete Line Marker, Furnish and Install, Complete (Tall or Short Marker)	13	Each	\$100.00	\$1,300.00	\$45.00	\$585.00	\$77.00	\$1,001.00	\$45.00	\$585.00	\$70.00	\$910.00	\$100.00	\$1,300.00
22	Test Meter/Tap Assembly, Furnish and Install, Per Detail, Complete	3	Each	\$1,700.00	\$5,100.00	\$1,600.00	\$4,800.00	\$880.00	\$2,640.00	\$1,300.00	\$3,900.00	\$856.00	\$2,568.00	\$2,500.00	\$7,500.00
23	Crushed Rock on Trench Surface, In Place	133	Ton	\$25.00	\$3,325.00	\$37.00	\$4,921.00	\$19.00	\$2,527.00	\$22.50	\$2,992.50	\$25.00	\$3,325.00	\$30.00	\$3,990.00
24	Extra for Mechanical Removal of Solid Rock, Only On Order of the Engineer	15	C.Y.	\$50.00	\$750.00	\$20.00	\$300.00	\$55.00	\$825.00	\$20.00	\$300.00	\$50.00	\$750.00	\$20.00	\$300.00
25	Extra for Mechanical Tamping of Trench Backfill, When Not Required by Plans and/or Specifications, Only On Order of the Engineer	10	C.Y.	\$50.00	\$500.00	\$20.00	\$200.00	\$55.00	\$550.00	\$20.00	\$200.00	\$20.00	\$200.00	\$20.00	\$200.00
26	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$25.00	\$250.00	\$50.00	\$500.00	\$20.00	\$200.00	\$20.00	\$200.00	\$25.00	\$250.00	\$30.00	\$300.00
27	Extra for Crushed Rock for Pipe Bedding, Only on Order of the Engineer	10	Ton	\$25.00	\$250.00	\$50.00	\$500.00	\$20.00	\$200.00	\$20.00	\$200.00	\$25.00	\$250.00	\$30.00	\$300.00
28	3" Blowoff Assembly, furnish and Install, Complete	5	Each	\$1,500.00	\$7,500.00	\$900.00	\$4,500.00	\$990.00	\$4,950.00	\$800.00	\$4,000.00	\$686.00	\$3,430.00	\$750.00	\$3,750.00
29	2-inch Thickness Bituminous Surface Replacement, Trench Width, On Streets, Drives and Roads, Complete	160	L.F.	\$20.00	\$3,200.00	\$30.00	\$4,800.00	\$111.00	\$1,760.00	\$30.00	\$4,800.00	\$20.00	\$3,200.00	\$12.00	\$1,920.00
30	8-inch HDPE Polyethylene (DR-9), Class 200 Water Pipe, by Directional Bore Methods, Furnishing, Trenching, Bedding, Laying, Transition Fittings, Accessories, Backfilling, Detectable Wire, Complete, Unclassified Excavation	150	L.F.	\$200.00	\$30,000.00	\$170.00	\$25,500.00	\$66.00	\$9,900.00	\$125.00	\$18,750.00	\$60.00	\$9,000.00	\$180.00	\$27,000.00
Subtotal - Division "A"					\$838,257.00		\$655,998.00		\$669,248.00		\$687,923.90		\$725,690.80		\$704,060.60

STEVEN L. BESHEAR
GOVERNOR



ROBERT D. VANCE
SECRETARY

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
14 REILLY ROAD
FRANKFORT, KENTUCKY 40601
www.kentucky.gov

March 11, 2008

Mr. Greg Pridemore, Executive Director
Letcher Co Water District
P.O. Box 827
Whitesburg, KY 41858

RE: Letcher Co Water District
AI # 2666, APE20080003
PWSID # 0670462-08-003
Smoot Creek Area Water System Improvements
Letcher County, KY

Dear Mr. Pridemore:

We have reviewed the plans and specifications for the above referenced project. The plans include the construction of approximately 3 HP, 19 gpm, 240 TDH hydropneumatic pump station; 18,200 feet of 8 inch PVC; 5,500 feet of 4 inch PVC; and 8,114 feet of 3 inch PVC waterlines. 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.

Additionally, prior to connecting potable water to existing structures in areas served by the above referenced new waterline, provide the names and addresses of the described customers to the Division of Plumbing, Department of Housing, Bldg. 127, US 127 South, Frankfort, KY 40601.

If you have any questions concerning this project, please contact Mr. Jonathan Reynolds at 502-564-8158 extension 595.

Sincerely,

A handwritten signature in black ink, appearing to read "DMarlin".

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

MR:JR

Enclosures

C: Bell Engineering
Letcher County Health Department
Division of Plumbing

Distribution-Major Construction

Letcher Co Water District
Subject Item Inventory

Activity ID No.: APE20080003

Subject Item Inventory:

ID	Designation	Description
AIOO2666		
PORT4	Water lines	18,200 feet of 8 inch PVC, 5,500 feet of 4 inch PVC, 8,114 feet of 3 inch PVC waterlines
PORT5	Hydropneumatic pump sta	3 HP, 19 gpm, 240 TDH hydropneumatic pump
STOR1	Hydropneumatic tank	264 gallons hydropneumatic tank

Subject Item Groups:

ID	Description	Components
GACT6	3 HP, 19 gpm, 240 TDH hydropneumatic pump station; 18,200 feet of 8 inch PVC; 5,500 feet of 4 inch PVC; and 8,114 feet of 3 inch PVC waterlines	PORT5 3 HP, 19 gpm, 240 TDH hydropneumatic pump
		STOR1 264 gallons hydropneumatic tank
		PORT4 18,200 feet of 8 inch PVC, 5,500 feet of 4 inch PVC, 8,114 feet of 3 inch PVC waterlines

KEY

ACTV = Activity
AREA = Area
EQPT = Equipment
PERS = Personnel
STOR = Storage

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

Distribution-Major Construction

Letcher Co Water District

Subject Item Inventory

Activity ID No.: APE20080003

KEY

TRMT = Treatment

Distribution-Major Construction

Letcher Co Water District
Facility Requirements

Activity ID No.: APE20080003

Page 1 of 19

GACT6 (Smoot Creek Area WLE) 3 HP, 19 gpm, 240 TDH hydro pneumatic pump station; 18,200 feet of 8 inch PVC; 5,500 feet of 4 inch PVC; and 8.114 feet of 3 inch PVC waterlines: Monitoring Requirements:

Condition No.	Parameter	Condition
M-1	Coliform	The presence or absence of total Coliform monitored by sampling and analysis as needed shall be determined for 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)]

Distribution-Major Construction

Letcher Co Water District
Facility Requirements

Activity ID No.: APE20080003

GACT6 (continued):

Submittal/Action Requirements:

Condition No.	Condition
S-2	For proposed changes to the approved plan, submit information: Due prior to any modification to the Cabinet for approval. Changes to the approved plan shall not be implemented without the prior written approval of the Cabinet. [401 KAR 8:100 Section 1(8)]
S-3	The person who presented the plans shall submit the professional engineer's certification: Due when construction is complete to the Division of Water. The certification shall be signed by a registered professional engineer and state that the water project has been constructed and tested in accordance with the approved plans, specifications, and requirements. [401 KAR 8:100 Section 1(8)]

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 1 year from the issuance date of this permit, the permit shall expire. If requested prior to the permit expiration, an official extension from the Division of Water may be granted. If this permit expires, the original plans and specifications may be resubmitted for a new comprehensive review. If you have any questions concerning this project, please contact the Drinking Water Branch at 502/564-3410. [401 KAR 8:100 Section 1(9)]

Distribution-Major Construction

Letcher Co Water District
Facility Requirements

Activity ID No.: APE20080003

GACT6 (continued):

Narrative Requirements:

Condition No.	Condition
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T-4	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)]
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Distribution-Major Construction

Letcher Co Water District
Facility Requirements

Activity ID No.: APE20080003

Page 4 of 19

PORT4 (Water lines) 18,200 feet of 8 inch PVC, 5,500 feet of 4 inch PVC, 8,114 feet of 3 inch PVC waterlines:

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 \geq 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 \geq 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 \geq 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 \geq 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 \leq 1.0 mi should be utilized. [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.
L-8	Distance	Except when not practical, water lines shall be laid a horizontal Distance \geq 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.

Distribution-Major Construction

Letcher Co Water District
Facility Requirements

Activity ID No.: APE20080003

PORT4 (continued):

Limitation Requirements:

Condition No.	Parameter	Condition
L-9	Distance	When water lines and sewers cross, 1) water lines shall be laid such that either a) 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.
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.

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PORT4 (continued):

Limitation Requirements:

Condition No.	Parameter	Condition
L-14	Velocity	Each blow-off, fire hydrant, or flush hydrant shall be sized so that Velocity \geq 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.

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 Requirements:

Asbestos (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)]

Distribution-Major Construction

Letcher Co Water District
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PORT4 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-2	<p>Additional Limitations: Water line installation shall be in accordance with AWWA standards or manufacturer recommendations. [Recommended Standards for Water Works 8.5.1]</p>
T-3	<p>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 ANS/NSF Standard 61. [Recommended Standards for Water Works 8.0.1]</p>
T-4	<p>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]</p>
T-5	<p>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]</p>
T-6	<p>Additional Limitations: A flush hydrant or blow-off shall be required at the end of each dead end line that is less than 6 inches in diameter. [Recommended Standards for Water Works 8.1.6]</p>
T-7	<p>Additional Limitations: For each fire or flush hydrant, auxiliary valves shall be installed in the hydrant lead pipe. [Recommended Standards for Water Works 8.3.3]</p>
T-8	<p>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]</p>
T-9	<p>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 non-permeable 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]</p>

Distribution-Major Construction

Letcher Co Water District
Facility Requirements

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Page 8 of 19

PORT4 (continued):

Narrative Requirements: Additional Limitations:

Condition No.	Condition
T-10	<p>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]</p>
T-11	<p>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)]</p>
T-12	<p>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)]</p>

Subfluvial Pipe Crossings:

Condition No.	Condition
T-13	<p>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.</p> <ol style="list-style-type: none">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)]

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PORT 4 (continued):

Narrative Requirements:

Subfluvial Pipe Crossings:

Condition No.	Condition
T-14	<p data-bbox="618 1596 647 1868">Subfluvial Pipe Crossings: For subfluvial pipe crossings greater than 15 feet in width,</p> <ol data-bbox="649 702 714 1868" style="list-style-type: none"><li data-bbox="649 808 678 1868">1) the pipe shall be of special construction, having flexible, restrained, or welded watertight joints, and<li data-bbox="680 702 709 1868">2) valves shall be provided at both ends of water crossings so that the section can be isolated for testing or repair. <p data-bbox="716 1723 745 1868">Valves shall</p> <ol data-bbox="747 212 862 1868" style="list-style-type: none"><li data-bbox="747 1596 776 1868">a) be easily accessible,<li data-bbox="777 1489 807 1868">b) not be subject to flooding, and<li data-bbox="808 212 862 1868">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]

Distribution-Major Construction

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PORT5 (Hydropneumatic pump sta) 3 HP, 19 gpm, 240 TDH hydropneumatic pump:

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.

Distribution-Major Construction

Letcher Co Water District
Facility Requirements

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PORTS (continued):

Limitation Requirements:

Condition No.	Parameter	Condition
L-6	Height	<p>Pumping stations shall not be subject to flooding. To this end,</p> <ol style="list-style-type: none">1) grading around stations shall lead surface drainage away and2) stations shall be elevated or protected to a Height \geq 3 ft above the highest of the following:<ol style="list-style-type: none">a) the 100-year flood elevation, orb) 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. <p>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 \leq 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.</p>
L-7	Height	

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-1	<p>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]</p>
T-2	<p>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]</p>
T-3	<p>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]</p>
T-4	<p>Additional Limitations: Pumping stations shall be of durable construction with outward-opening doors. [Recommended Standards for Water Works 6.2.b]</p>

Distribution-Major Construction

Letcher Co Water District
Facility Requirements

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PORTS (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-5	<p>Additional Limitations: Pumping stations shall be fire and weather resistant. [Recommended Standards for Water Works 6.2.b]</p>
T-6	<p>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]</p>
T-7	<p>Additional Limitations: If underground structures are present at pumping stations, they shall waterproofed. [Recommended Standards for Water Works 6.2.d]</p>
T-8	<p>Additional Limitations: Pumping stations shall have adequate space for the installation of additional pumps. [Recommended Standards for Water Works 6.2.a]</p>
T-9	<p>Additional Limitations: Pumping stations shall have adequate space for the safe servicing of all equipment. [Recommended Standards for Water Works 6.2.a]</p>
T-10	<p>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]</p>
T-11	<p>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]</p>
T-12	<p>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]</p>
T-13	<p>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]</p>
T-14	<p>Additional Limitations: Electrical controls shall be located above grade. [Recommended Standards for Water Works 6.6.5]</p>

Distribution-Major Construction

Letcher Co Water District
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Activity ID No.: APE20080003

PORT5 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-15	<p>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]</p>
T-16	<p>Additional Limitations: Pump stations shall be adequately lighted throughout. [Recommended Standards for Water Works 6.2.7]</p>
T-17	<p>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]</p>
T-18	<p>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]</p>
T-19	<p>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]</p>
T-20	<p>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]</p>
T-21	<p>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]</p>
T-22	<p>Additional Limitations: Pump stations shall have at least 2 pumps. Pumps shall be sized so that if any single pump is out of service, the remaining pump or pumps shall be capable of providing the peak demand on the station. Additionally, pumps shall be sized so that the pump station is capable of providing at least 10' times the average demand of the area served by the station. [Recommended Standards for Water Works 6.3, Recommended Standards for Water Works 6.4.1, Recommended Standards for Water Works 7.2.2.a]</p>

Distribution-Major Construction

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PORT5 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-23	<p>Additional Limitations: Provisions shall be made for pump alternation. [Recommended Standards for Water Works 6.6.5]</p>
T-24	<p>Additional Limitations: Pumps shall</p> <ol style="list-style-type: none">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, andbe served by control equipment that is properly protected against temperatures to be encountered. [Recommended Standards for Water Works 6.3]
T-25	<p>Additional Limitations: 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 6.6.5]</p>
T-26	<p>Additional Limitations: Pump stations shall be located or controlled so that a bypass is available. [Recommended Standards for Water Works 6.4.e]</p>
T-27	<p>Additional Limitations: Pump stations shall contain indicating and totalizing metering of the total water pumped. Each pump shall have</p> <ol style="list-style-type: none">a standard pressure gauge on its discharge line anda compound gauge on its suction line. <p>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]</p>
T-28	<p>Additional Limitations: 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]</p>

Distribution-Major Construction
 Letcher Co Water District
 Facility Requirements

Activity ID No.: APE20080003

PORTS (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
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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 restrains where necessary, and
- 6) a) be such that each pump has an individual suction line or
 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]

Distribution-Major Construction

Letcher Co Water District
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STOR1 (Hydropneumatic tank) 264 gallons hydropneumatic tank:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Residual Disinfection	New water tanks shall be thoroughly disinfected (in accordance with AWWA Standard C651) upon completion of construction and 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 \geq 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.
L-2	Volume	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. Hydropneumatic (pressure) tanks should have a gross Volume \geq 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.

Narrative Requirements:

Additional Limitations:

Condition 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) 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]

Distribution-Major Construction

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STOR1 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-4	<p>Additional Limitations: 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]</p>
T-5	<p>Additional Limitations: 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]</p>
T-6	<p>Additional Limitations: 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]</p>
T-7	<p>Additional Limitations: Fencing, locks on access manholes, and other necessary precautions shall be provided to prevent trespassing, vandalism, and sabotage. [Recommended Standards for Water Works 7.0.4]</p>
T-8	<p>Additional Limitations: Completely house the tank and locate it above the normal ground surface. [Recommended Standards for Water Works 7.2.1]</p>
T-9	<p>Additional Limitations: All tanks and their appurtenances shall be designed to prevent freezing. [Recommended Standards for Water Works 7.0.13]</p>
T-10	<p>Additional Limitations: 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]</p>
T-11	<p>Additional Limitations: 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 Standards for Water Works 7.0.7]</p>

Distribution-Major Construction

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STOR1 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-12	<p>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]</p>
T-13	<p>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]</p>
T-14	<p>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]</p>
T-15	<p>Additional Limitations: Hydropneumatic (pressure) tanks shall have</p> <ol style="list-style-type: none">1) bypass piping, to permit operation of the water distribution system while the tank is being repaired or painted,2) a drain, and3) control equipment. <p>The control equipment shall include</p> <ol style="list-style-type: none">a) a pressure gauge,b) a water sight glass,c) an automatic or manual blow-off,d) a means for adding air, ande) pressure operated start-stop controls for the pumps. [Recommended Standards for Water Works 7.2.3]
T-16	<p>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]</p>
T-17	<p>Additional Limitations: Appropriate sampling tap(s) shall be provided to facilitate collection of water samples for both bacteriologic and chemical analyses. [Recommended Standards for Water Works 7.0.19]</p>

Distribution-Major Construction

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STOR1 (continued):

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-18	<p>Additional Limitations: Adequate controls shall be provided to maintain levels in storage structures. The level controls shall be acceptable to the Division of Water. Level indicating devices should be provided at a central location. Overflow and low-level warnings or alarms should be located at places in the community where they will be under responsible surveillance 24 hrs a day. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 7.3.3]</p>
T-19	<p>Additional Limitations: Proper protection shall be given to metal surfaces by</p> <ul style="list-style-type: none">a) paints or other protective coatings and/orb) cathodic protective devices. [Recommended Standards for Water Works 7.0.17]
T-20	<p>Additional Limitations: If cathodic protection is utilized,</p> <ul style="list-style-type: none">a) competent technical personnel should design and install the protection andb) a maintenance contract should be provided. [Recommended Standards for Water Works 7.0.17]
T-21	<p>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)]</p>
T-22	<p>Additional Limitations: Paints and coatings</p> <ul style="list-style-type: none">a) shall meet NSF standard 61,b) shall be acceptable to the Division of Water,c) shall be properly applied and cured, andd) 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]

LETCHER COUNTY WATER AND SEWER DISTRICT

**PROJECTED O&M COST AFTER COMPLETION OF
SMOOT CREEK WATER IMPROVEMENTS PROJECT**

<u>DESCRIPTION</u>		<u>AVERAGE MONTHLY COST</u>	<u>AVERAGE YEARLY COST</u>
Electrical Cost @ Pump Stations	\$	550.00	\$ 6,600.00
Electrical Cost @ Tank	\$	25.00	\$ 245.00
Postage	\$	578.00	\$ 6,936.00
Labor	\$	12,330.00	\$ 147,960.00
Supplies	\$	600.00	\$ <u>7,200.00</u>
Total			\$ 168,941.00

Note 1: Assumes existing District employees will be utilized for project related activities.

Note 2: Does not include purchase cost of water.

Note 3: Calculation of O&M Costs associated with first year of operation when the project is still under warranty.

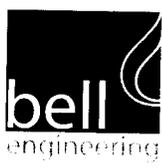
EXISTING WATER MAINS

EXISTING
250,000 GALLON
STORAGE TANK

PROJECT AREA

EXISTING
WATER
LINES

PROJECT MAP
SMOOT CREEK AREA
WATER IMPROVEMENTS
LETCHER COUNTY
WATER & SEWER DISTRICT
LETCHER COUNTY, KENTUCKY
JUNE, 2008



LEXINGTON
HOPKINSVILLE

