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**PUBLIC SERVICE  
COMMISSION**

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

AN INVESTIGATION INTO THE ADEQUACY	)	CASE
OF THE WATER SUPPLY OF MAGOFFIN	)	NO. 2008-00443
COUNTY WATER DISTRICT	)	

**RESPONSE OF THE CITY OF SALYERSVILLE  
TO COMMISSION STAFF'S FIRST SET OF INTERROGATORIES  
AND REQUEST FOR PRODUCTION OF DOCUMENTS**

\* \* \* \* \*

Comes now Stanley Howard, Mayor of Salyersville and Thomas Howard,  
Superintendent of Salyersville Water Works and for their Response to Commission  
Staff's First Set of Interrogatories and Requests for Production of Documents to the City  
of Salyersville, respectfully states as follows:

1. Identify the persons who prepared and are responsible for Magoffin  
District's Response to the Commissioner's Order of October 17, 2008.

**RESPONSE:** (1) Thomas Howard, Superintendent, Salyersville Water Works; (2)  
Judy Jackson, chairperson, Salyersville Water Works; (3) Karen Howard, City Clerk/DES  
Coordinate; (4) Nora Howard, Chief Operator, Salyersville Water plant; (5) Paul Howard,  
Board member, Salyersville Water Commission; (6) Stanley Howard, Mayor of  
Salyersville; (7) Kevin Howard, Summit Engineering.

2. Provide a map of Magoffin District's water distribution system at a scale of

at least one each equals two miles, marked to show Magoffin District's distribution system. This map shall show pipeline sizes, locations, and connections as well as pumps, water storage tanks, and sea level elevation points.

**RESPONSE:** See attached Exhibit 1.

3. Refer to Salyersville's response to the Commission's Order of October 17, 2008, Item 5.

- a. Identify the person or persons who prepared the "City of Salyersville Water Shortage Response Plan."
- b. State whether this plan has been updated since April 1996.
- c. If the Water Shortage Response Plan has been updated, state the date(s) when revisions were made, provide a copy of each revision.

**RESPONSE:** (a) Division of Water/Big Sandy Rural Development assisted Salyersville; (b) No. It has not been updated except for page 4. See Exhibit 2; (c) No revisions have been made.

4. Provide a copy of Salyersville's most current water withdrawal permit from the Kentucky Division of Water.

**RESPONSE:** See attached Exhibit 3.

5. For each of Salyersville's existing surface water treatment plants, state:
- a. The plant's location;
  - b. The water source for the plant; and
  - c. The plant's rate capacity.

**RESPONSE:** (a) 402 College Street, Salyersville, Kentucky 41465; (b) Licking River surface intake at Salyersville Middle School; one water well at Gardner farm; one water well at old treatment plant. (c) 1,000,000 gallons per day.

6. a. State the number and location of Salyersville's active water wells.
- b. For each well, state its maximum daily capacity.
- c. Provide all studies and reports regarding the capacity and service life of its water wells that Salyersville has commissioned or prepared.
- d. List and describe all water quality problems that Salyersville has experienced since January 1, 2003, with water drawn from its active water wells.

**RESPONSE:** (a) 2 wells, 1 water well at Gardner farm, 1 water well at old treatment plant; (b) 318,000 gallons per day combined; (c) these wells are unmetered. These wells have high salt concentration and are used only to supplement Licking River surface water intake. (See U. K. Geological survey report attached as Exhibit 4); (d) high salt concentration.

7. a. Describe the conditions under which Salyersville will withdraw water from its water wells to meet its system demand.
- b. Provide all written operating procedures and manuals that govern the operation of Salyersville's wells.

**RESPONSE:** (a) only when there is insufficient water from the Licking River surface water intake. (b) annual samples are submitted to the Division of Water for the

wells. Pumps are inspected and exercised quarterly. All 4 pumps on the wells are new.

8. Describe Salyersville's existing water storage capacity. For each storage facility, state:

- a. Location;
- b. Maximum capacity; and
- c. Type (e.g., standpipe, elevated, clearwell).

**RESPONSE:** (a) (1) 401 College Street, Salyersville, Kentucky 41465 - clear well 200,000 gallon capacity, (2) downtown, stand pipe, 200,000 gallon capacity; (3) Route 7, stand pipe 500,000 gallon capacity; (4) State Road stand pipe 100,000 gallon capacity; (5) Belsey Tank stand pipe, 500,000 gallon capacity.

9. Provide the findings and reports of all studies that Salyersville has commissioned, prepared, or been involved in that address the adequacy of Salyersville's water supply.

**RESPONSE:** (a) a study was performed by Kentucky Geological Survey, a copy of which is attached as Exhibit 4; (b) preliminary investigation of supply alternates during last supply outage. See Exhibit 5.

10. Provide the findings and reports of all studies that Salyersville has commissioned, prepared, or been involved in that address the adequacy of Salyersville's water facilities.

**RESPONSE:** A report was prepared to support aging main replacement project WX21153515. A new 500,000 gallon tank, the Belsey tank was constructed. Phase 2 is

in the funding phase. Also see 9(b) above.

11. a. List each interconnection that Salyersville presently has with other water distribution systems.

b. For each interconnection, state the capacity of the interconnection (in gallons per day) and whether Salyersville has a contract to purchase water through the interconnection.

c. For each interconnection for which Salyersville presently has a contract to purchase water, provide a copy of that contract.

**RESPONSE:** (a) Route 40 with PUC is an emergency supply interconnect; (b) 300,000 gallons per day capacity but it is hooked to a 4 inch line which limits capacity to 100,000 to 150,000 gallons per day; (c) Yes, copy attached as Exhibit 6.

12. a. List all water distribution systems for which Salyersville has considered or studied the possibility of an interconnection.

b. For each system listed:

(1) Describe the actions that Salyersville undertook to study a possible interconnection.

(2) Provide a copy of all correspondence and other communication with the system in which interconnection was discussed.

(3) If Salyersville determined that an interconnection was not feasible or practical, state the reasons for this determination.

**RESPONSE:** (a) Paintsville Utility Commission is the only water distribution

system which is adjacent to Salyersville Water lines. Magoffin County Water District is adjacent to Prestonsburg Utility and Morgan County Water. (b) (1) Interconnection has been made with PUC; however, there is a possibility that system levels would have to drop to a dangerously low level for the water to flow from interconnection to Salyersville system; (2) See copy of purchase agreement attached as Exhibit 6; (3) the rates charged for water would exceed Salyersville billing rates; there is a 4 inch supply line which limits capacity to 100,000 gallons to 150,000 gallons per day and there is a potential problem with the system pressure levels.

13. a. State whether Salyersville presently has any loan agreements with or has issued revenue bonds to Rural Development or its predecessors.

If yes, for each agreement:

- (1) List the date of the agreement;
- (2) The amount of the loan
- (3) The current amount owed on the loan; and
- (4) The expected date that the loan will be retired.

**RESPONSE:** Farmers Home loans which are as follows: (a) (1) 02/19/1985, (2) \$369,000, (3) principal payoff is \$208,271.65, (4) payoff date is 2023 (water); (b)(1) 1989, (2) \$475,000, (3) principal payoff is \$346,541.28, (4) payoff date is 2029 (sewer); (c)(1) 1989, (2) \$59,000 (3) principal payoff is \$42,965.51, (4) payoff date is 2029 (sewer).

14. Refer to the Emergency Water Supply Agreement of October 13, 2008,

between Salyersville and Paintsville Utilities Commission (“PUC”)

- a. State whether a connection between PUC and Salyersville presently exists.
- b. If a connection exists, describe the current state of such connection. This description should address whether water can presently be obtained through this connection.
- c. State whether Salyersville has procured a bond in the amount of \$10,000 to cover the cost of the emergency supply. If Salyersville has not yet procured a bond, state when Salyersville expects to procure such bond.

**RESPONSE:** (a) Yes; (b) this is a 4 inch line which would allow a flow between 100,000 to 150,000 gallons per day; ( c) yes. Copy attached as Exhibit 7.

15. State all objections, if any, that Salyersville may have to Magoffin County Water District (“Magoffin District”) contracting with PUC to purchase water on a regular non-emergency basis.

**RESPONSE:** Salyersville Water needs the revenue from water sales to Magoffin Water District to pay off existing debt on water plant and system.

16. Provide all correspondence between Salyersville and Magoffin District in which potential Magoffin District purchases from PUC are discussed.

**RESPONSE:** All discussion has been informal verbal communication between managers.

17. State Salyersville’s maximum daily demand and the date on which it was recorded.

**RESPONSE:** Highest date of production was 02/19/2007 with 996,466 gallons.

18. For each calendar year from 2002 to 2007, state:
  - a. Salyersville's maximum daily demand for the year;
  - b. Salyersville's average daily demand;
  - c. Magoffin District's average daily purchases from Salyersville for the year;  
and
  - d. Magoffin District's maximum daily purchase from Salyersville for the year  
and the date on which maximum purchase occurred. (If information  
regarding actual daily purchases is unavailable, provide maximum monthly  
purchases and months in which the purchases occurred).

**RESPONSE:**

- (A) 2002 - 08/28/2002 - 868,373 gallons  
2003 - 09/05/2003 - 901,521 gallons  
2004 - 07/16/2004 - 955,819 gallons  
2005 - 08/11/2005 - 956,909 gallons  
2006 - 06/06/2006 - 936,015 gallons  
2007 - 08/23/2007 - 936,932 gallons
- (b) 2002 - 675,794 gallons average daily demand  
2003 - 703,060 gallons average daily demand  
2004 - 805,448 gallons average daily demand  
2005 - 789,377 gallons average daily demand



2006 - 759,262 gallons average daily demand

2007 - 760,684 gallons average daily demand

( c) 2002 - 455,470 gallons

2003 - 431,480 gallons

2004 - 511,610 gallons

2005 - 512,420 gallons

2006 - 529,390 gallons

2007 - 496,170 gallons

(d) 07/21/04 - 605,429 gallons

06/29/05 - 600,857 gallons

08/09/06 - 585,857 gallons

06/20/07 - 610,143 gallons

19. State the date, duration and reason for each boil water advisory that

Salyersville has issued since January 1, 2003.

**RESPONSE:** See attachments, Exhibit 8.

20. State the date, duration and reason for each water shortage advisory that

Salyersville has issued since January 1, 2003.

**RESPONSE:** On August 22, 2008, a water shortage advisory was issued to conserve water and remained in effect during a crisis which was in effect until November 26, 2008. On September 28, 2007, a water shortage advisory was issued to conserve water and remained in effect during a crisis which was in effect until October 13, 2007.

These shortages were caused by drought conditions and low water at the Licking River surface water intake.

21. a. State each time period since January 1, 1996, during which Salyersville implemented water restrictions.

b. For each time period listed;

(1) State the reason for implementing water restrictions; and

(2) State the customer classes (e.g., retail, wholesale) that were subject to the restrictions.

**RESPONSE:** (A) 2 times in the last four years. There are no records prior to that date. From 09/28/07 - 10/13/07 and 09/03/08 - 11/26/08. (B)(1) drought and low water at the intake on the Licking River surface water intake; (2) commercial users such as car washes, some restrictions were placed on residential users. See Exhibit 9.

22. Provide a copy of Salyersville's current ordinances of the Salyersville City Council related to water shortage response and water rationing.

**RESPONSE:** See attached Exhibit 10.

23. a. State whether Magoffin District has formally accepted and agreed to implement Salyersville's water shortage response plan.

b. State the date of Magoffin District's acceptance and agreement.

c. Provide a copy of all written documents in which Magoffin District stated its acceptance and agreement to Salyersville's water shortage response plan.

**RESPONSE:** (a) There is no formal agreement but there has been unilateral

cooperation; (b) The dates that water restrictions were implemented by the City of Salyersville, see answer to Interrogatory No. 21(a) above.; (c) no written documents.

24. Provide all correspondence and other written communication, including electronic mail messages, between Salyersville and the Division of Water since January 1, 1996, regarding Salyersville's water shortage response plan.

**RESPONSE:** See Exhibits 2, 5 and 14.

25. Provide a copy of Salyersville's current contract with Magoffin District for the sale of water.

**RESPONSE:** See attached as Exhibit 11.

26. Provide all correspondence and other written communication, including electronic mail messages, between Salyersville and Magoffin District since January 1, 2003, regarding the adequacy of Salyersville's water supply.

**RESPONSE:** No written correspondence. Water was supplied without restriction until 2008 water shortage.

27. Provide the minutes of all meetings of the Salyersville City Council since January 1, 2003, in which the adequacy of Salyersville's water supply was discussed.

**RESPONSE:** See highlight sections of minutes supplied in Exhibit 12.

28. At its Response to Item 4 of the Commission's Order of October 17, 2008, Salyersville states that the quoted rate for purchased water from PUC "exceeds the cost Salyersville Water can charge Magoffin District by almost 50%." State whether Salyersville considered applying to the Commission for an adjustment in its wholesale

rate to Magoffin District to recover any increased costs resulting from purchases of water from PUC. If no, explain why not.

**RESPONSE:** Salyersville did not foresee the extended drought conditions which restricted intake from the Licking River. There was not sufficient time to petition for a rate increase. There have been rate increases in 2006 and 2008. Recent rains have cured water supply problem.

29. List and explain the criteria that Salyersville will use to determine purchases of water from PUC should be made.

**RESPONSE:** The rates charged by PUC for water supplied; PUC's ability to supply sufficient water through a 4 inch line; a potential problem with supply because of system pressure levels; amount of available raw water from deep water wells.

30. a. State whether Salyersville is aware of the Regional Emergency Water Interconnection Plan ("Water Interconnection Plan") that Big Sandy Area Development District issued in April 2005.

b. If yes, state the actions, if any, that Salyersville took in response to the findings and recommendations contained in the Water Interconnection Plan.

**RESPONSE:** (a) Yes; (b) project WX21153515 aging main replacement and project WX221153516 negotiation of a water purchase agreement with Paintsville Utilities Commission.

31. State whether Salyersville's representatives or employees participated in preparation of the Water Interconnection Plan.

**RESPONSE:** (a) Yes; (b) Mayor Stanley Howard; Thomas Howard, Superintendent, Salyersville Water Works; and Kevin Howard, Summit Engineering.

32. Describe the purpose and the current status of the following projects for which Salyersville has sought funding from the Kentucky Infrastructure Authority:

- a. WRIS Project No. WX21153516;
- b. WRIS Project No. WX21153502
- c. WRIS Project No. WX21153501; and
- d. WRIS Project No. WX21153512.

**RESPONSE:** (a) water security project providing a larger line in to PUC; (b) additional water source unfunded and inactive; (c) increase water treatment plant capacity unfunded and inactive; (d) additional water source from Paintsville Lake, currently unfunded and inactive.

33. a. Describe the actions, if any, that Salyersville took to request and obtain Executive Order 2008-001056, which announced a state of emergency in Magoffin County.

b. Provide a copy of all correspondence and other written communications, including electronic mail messages, which Salyersville officials sent or received from state officials discussed a declaration of a state of emergency.

**RESPONSE:** (a) Salyersville Mayor Stanley Howard requested that the Governor issue a state of emergency in letter dated 10/09/08, See Exhibit 13. The order was entered later that day; (b) the letter with attachments and the executive order are included as

Exhibit 13.

34. Provide a copy of the most recent version of the water supply plan for Magoffin County.

**RESPONSE:** We have no copy of Magoffin County's plan.

35. List all entities to which Salyersville provides wholesale water service.

**RESPONSE:** Magoffin County Water District.

36. Describe all discussions that Salyersville's officials have had since January 1, 2003, with all other utilities about obtaining an emergency source of supply of water.

**RESPONSE:** Discussed and implemented with Paintsville Utility Commission, see Water Purchase Agreement, Exhibit 6.

37. a. Identify the person(s) responsible for the planning and operation of Salyersville's water distribution system. For each person listed, state his or her position with Salyersville.

b. Identify the person(s) responsible for the negotiation of water supply contracts on behalf of Salyersville. For each person listed, state his or her position with Salyersville.

**RESPONSE:** (a) Stanley Howard, Mayor; Thomas Howard, Superintendent; Water Commission members and city council members; (b) Mayor Stanley Howard with consent of Salyersville City Council.

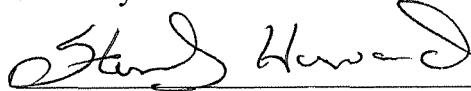
38. a. State whether, prior to October 13, 2008, Salyersville purchased water from PUC.

- b. If Salyersville previously purchased water from PUC,
- (1) Provide for each year since 1996 Salyersville's total annual purchases from PUC.
  - (2) State the reasons why Salyersville ceased purchasing water from PUC.

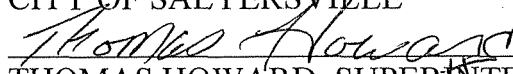
**RESPONSE:** (a) No.; (b) N/A.

**VERIFICATION:**

The foregoing is true and correct as I verily believe.



STANLEY HOWARD, MAYOR  
CITY OF SALYERSVILLE



THOMAS HOWARD, SUPERINTENDENT  
SALYERSVILLE WATER WORKS

STATE OF KENTUCKY

COUNTY OF MAGOFFIN

SUBSCRIBED AND SWORN to before me by STANLEY HOWARD, Mayor  
of the City of Salyersville on this the 9<sup>th</sup> day of December, 2008.

My Commission Expires:

4/23/2011



NOTARY PUBLIC

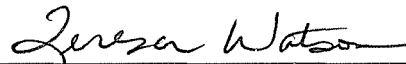
STATE OF KENTUCKY

COUNTY OF MAGOFFIN

SUBSCRIBED AND SWORN to before me by THOMAS HOWARD,  
Superintendent of Salyersville Water Works on this the 9<sup>th</sup> day of December,  
2008.

My Commission Expires:

4/23/2011



NOTARY PUBLIC



**CERTIFICATE**

This is to certify that a true and correct copy of the foregoing was this the 10<sup>th</sup>

day of December, 2008, mailed postage prepaid to the following:

DEP Division of Water  
Frankfort Office Park  
14 Reilly Road  
Frankfort, KY 40601

Magoffin County Water District  
P. O. Box 490  
Salyersville, KY 41465

Billy J. Rowe, Sr.  
HC 60, Box 255  
Salyersville, KY 41465

Paintsville Utilities Commission  
P. O. Box 630  
Paintsville, KY 41240

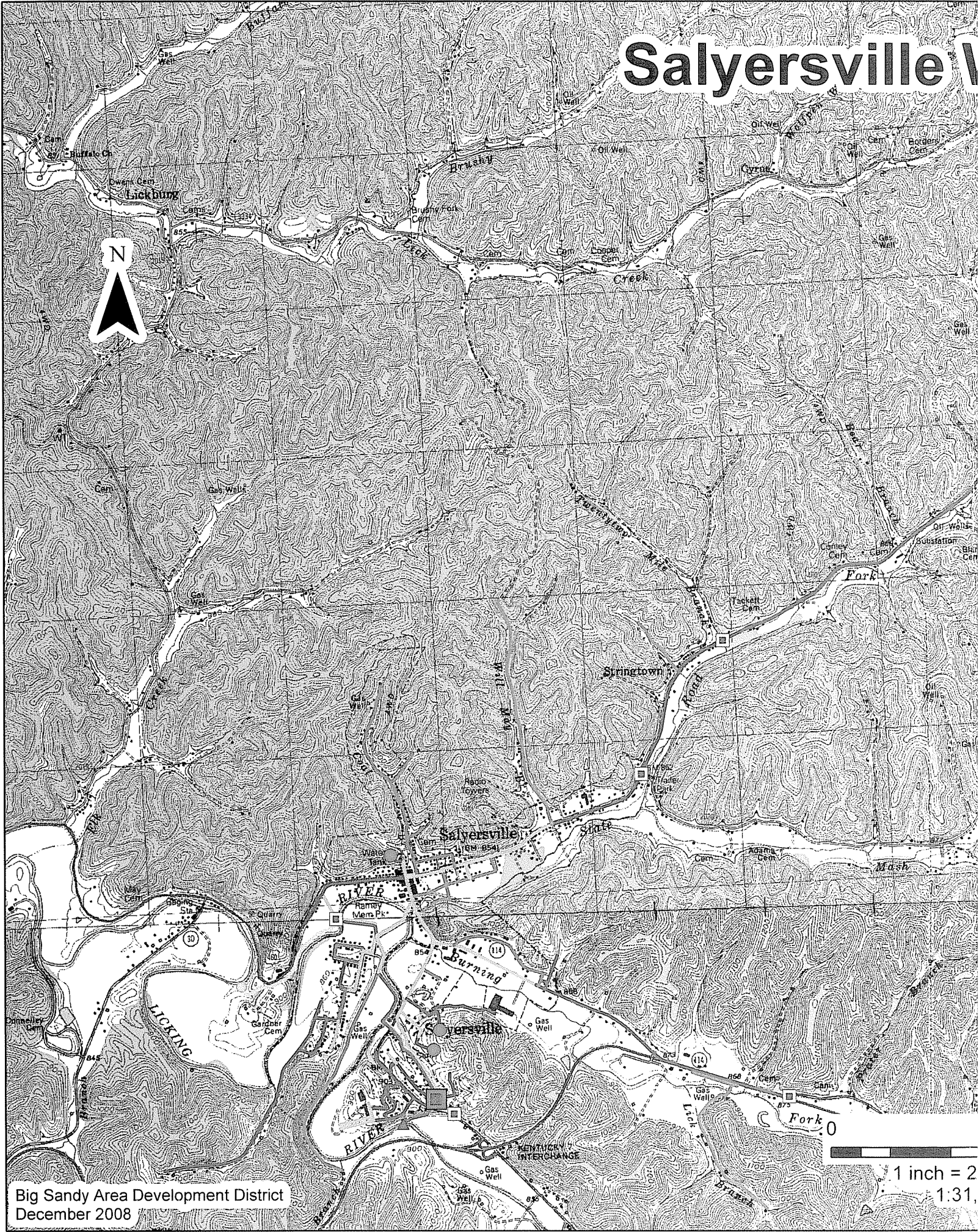
Hon. David Edward Spenard  
Assistant Attorney General  
Office of the Attorney General  
Utility & Rate Intervention Division  
1024 Capital Center Drive  
Suite 200  
Frankfort, KY 40601-8204

the original to:

Public Service Commission  
211 Sower Blvd.  
P. O. Box 615  
Frankfort, KY 40602-0615

  
STANLEY HOWARD, MAYOR

# Salyersville



Big Sandy Area Development District  
December 2008



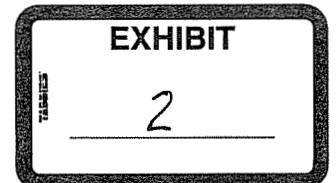
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**City of Salyersville**  
**Water Shortage Response Plan**

**Salyersville Water Commission**  
**April, 1996**



## Foreword

“The Salyersville water treatment plant obtains raw water from the Licking River at approximately River Mile (RM) 270.3. The city of Salyersville is permitted to withdraw up to 475,000 gallons per day per month. The 1994 Water Withdrawal Reports (WWRs) show Salyersville withdrawing an average of 474,000 gallons per month (almost 100 percent of the allowable amount). The January through June 1995 WWRs show 485,000 per day (102 percent).

The flow required to meet the permitted withdrawal is equaled or exceeded about 65 percent of the time in September and October, the driest months. The backup source consists of two (2) wells near the surface intake, these may not be adequate to meet current use during low flows. Thus, withdrawals are closely approaching the limit of raw water availability. As a consequence the Salyersville water treatment plant is on the Division of Water drought vulnerable list. Because of this, the Public Service Commission (PSC) required the city of Salyersville to develop a water shortage response plan.” *Comments made during clearinghouse review of the 1996 Magoffin County Water District expansion project.*

## City of Salyersville

### Water Shortage Response Plan

Timely, responsible action at the local level is essential in responding to water shortage conditions. This document provides the plan which the City of Salyersville follow to provide such timely, responsible action.

#### **Vulnerability to Water Shortage**

The Salyersville water treatment plant obtains raw water from the Licking River at approximately River Mile (RM) 270.3. The city of Salyersville is currently permitted to withdraw up to 475,000 gallons per day per month. The 1994 Water Withdrawal Reports (WWRs) show Salyersville withdrawing an average of 474,000 gallons per month (almost 100 percent of the allowable amount). The June 1995 WWRs show 499,000 per day (105 percent).

The Big Sandy Water Supply Plan assessed the water supply needs of the Magoffin County Study Area using the IWR-Main model and concluded that the annual average per day requirements in 1995 would be 485,000 gpd. Projected usage for the year 2000 is 584,000 gpd and for 2005 is 710,000 gpd. Comparing the 1995 projected with the 1995 actual shows the IWR-Main model to be within 3% accuracy.

Gaging station 03248500 is the only station in the planning area on the Licking River. The station is located in Magoffin County on the left bank of the Licking River on the downstream side of the bridge on State Highway 30, 0.8 miles upstream from Gardner Branch, 1.2 miles west of Salyersville, 2.9 miles downstream from State Fork Road and at mile 266.9 on the Licking River.

The station was first installed in October, 1938, and records have been continually kept. At time, no flow has been recorded in the stream. No flow has been recorded for five different seven day periods which occurred in the years 1943, 1948, 1953, 1955 and 1957. In addition, no flow was recorded for a fourteen day period in 1953.

The average low flow at this gage is 27 cfs or 17.45 mgd and occurs in October. Water withdrawal permitting guidelines allow water available to any one use is 10% of average low flow or  $(17.45)(0.1) = 1.75$  mgd.

The low flow at this gaging station is  $7Q_{10} = 0$  cfs,  $7Q_{20} = 0$  cfs, and the 95% annual analysis of duration flow (historical) at this site is greater than or equal to 1.89 cfs or 1.22 mgd.

The backup source consists of two (2) wells near the surface intake; one located on the Gardner Farm and the other at the old water treatment plant. The permits for each well are inactive but the pumps and lines are maintained. Together the wells provide 350 gpm or 504,000 gpd. Historic records indicate that this rate has been sustained for a two week period.

The City of Salyersville maintains 700,000 gallons of stored finished water. The City has two 200,000 gallon and one 100,000 gallon storage tanks and two 100,000 gallon clearwells in the plant. The Magoffin County Water District maintains 500,000 gallons of finished water with 100,000 proposed. Combined, 1,300,000 gallons of storage are available.

The City of Salyersville is currently interconnected with the Paintsville City Utilities water system at the county line on State Highway 40. The Paintsville Water Commission will make its water supply available during emergency conditions. That interconnection is through 4 inch waterline with a 200,000 gallon storage tank providing pressure. The pressure on that line is generally 70 - 80 psi. A maximum of 2,700 gpm or 3,888,000 gallons per day could be available, however, that is unrealistic. The supply which is more likely available is 200,000 gallons per day. The City of Paintsville has adequate supply and treatment capacity to provide that amount of water.

This assessment of supply and demand shows the potential for a water shortage from the primary supply—the Licking River. The well field and the connection to the City of Paintsville can provide 704,000 gpd in the event that no water is available from the Licking River.

Current demand is 499,000 gpd. Using the Division of Water's standard loading, the expected expansion of the Magoffin County Water District will require an additional 37,000 gpd making the average daily requirement 536,000 gpd or 76% of the available backup supply. The water district, using its user data, projects the expanded needs to be 13,200 gpd. Using that data the average daily requirement will be 512,200 gpd or 73% of available backup supply.

### **Water Shortage Response Plan**

*Note: This plan is an adaptation of the Kentucky Water Shortage Response Plan as prepared by the Division of Water and revised June 1988.*

In order to be prepared for and to respond in a timely and appropriate fashion to a water shortage, the City of Salyersville through its water commission and their employees will take the following actions as needed:

1. Determine whether the system loss is significant and can be reduced. If so, locate and correct leaks.
2. Explore possibilities for supplementing the water supply both immediately and to meet future demand.
3. Prepare and present to the Salyersville City Council a Water Shortage Response Ordinance and Water Rationing Ordinance for consideration and passage.
4. Apply to the Division of Water for increase in permitted water withdrawal to at least 600,000 gpd.
5. Secure the services of an engineering firm to determine the best method of increasing water supply with estimated cost.
6. Insure that the Magoffin County Water District accepts and agrees to implement this water shortage response plan.

In the event that no water or a reduced amount of raw water is available from the Licking River to supply the needs of Salyersville and Magoffin County, the City of Salyersville will first augment the supply with withdrawals from the two wells providing backup to the system. Should that fail to produce the amount of supply necessary, the City will request assistance from the Paintsville Utilities and begin the implementation of the following plan Water Shortage Response Plan.

The City will direct the community to take conservation measures, according to the severity of the shortage. This plan describes four phases of severity, matched to specific conservation and related activities.

a. Advisory phase

- Issue water shortage advisory
- Set conservation goals and prepare for decreasing supply
- Inform the public about the potential problem
- Request voluntary conservation

b. Alert phase

- Issue water shortage alert
- Set more stringent conservation goals
- Ban all Class 1, non-essential uses
- 

Inform the public about the problem

- Request voluntary conservation for all water use
- 

Monitor compliance with the

ban

on Class I use and enforce when necessary

c. Emergency phase

- Issue water shortage emergency declaration
- Set more stringent conservation goals
- Ban all Class I (non-essential), and restrict Class II (socially and economically important) water uses
- Inform the public
- Enact conservation pricing
- Monitor all drought-related activities, especially compliance with the bans. Enforce as necessary



d. Water rationing phase

- Begin mandatory allocation of water
- Immediately reduce usage by 25 percent
- Inform the public
- Enact conservation pricing
- Set new conservation goals and monitor all shortage-related activities, especially compliance with the allocations. Enforce as necessary.

Explanations of each action and the appropriate time to implement each response phase follows. Figures 1 and 2 illustrate the time to adopt each response phase.

*1. Determine whether the system loss is significant and can be reduced. If so, locate and correct leaks.*

The City of Salyersville currently experiences a 7% water loss. The Magoffin County Water District has an 8% water loss. Both are well within acceptable limits and indicate that only minor improvements to the systems may be possible. Locating and correcting leaks will not provide a significant reduction on water demand.

*2. Explore possibilities for supplementing the water supply both immediately and to meet future demand.*

An exchange agreement with Paintsville Utilities is in place and attached to this plan. The Paintsville Utilities Commission has indicated its willingness to provide water during emergency via a 4 inch system interconnection located on the county line on State Highway 40. That connection should realistically yield 200,000 gpd. The City of Paintsville currently has capacity and is not considered to be “drought vulnerable”.

*3. Prepare and present to the Salyersville City Council a Water Shortage Response Ordinance and Water Rationing Ordinance for consideration and passage.*

Model ordinances are available and under review.

*4. Apply to the Division of Water for increase in permitted water withdrawal to at least 600,000 gpd.*

Gary Rowe is currently preparing the permit request.

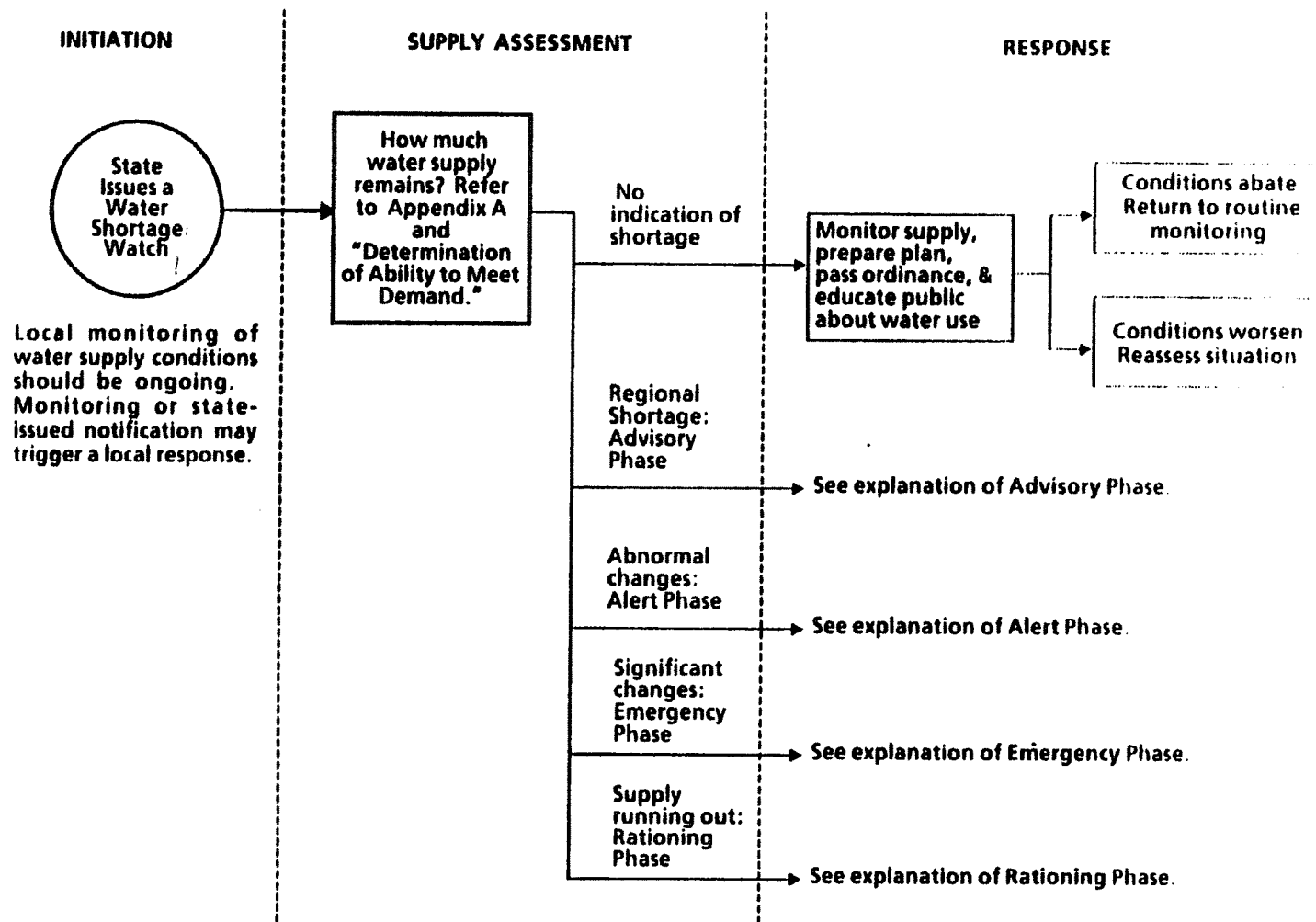
*5. Secure the services of an engineering firm to determine the best method of increasing water supply with estimated cost.*

Over time many options have been put forward to increase the amount of water supply available to the City. Three such options are: an impoundment located south of Salyersville in a location which would be available to supplement the flow in the Licking River, an impoundment near Salyersville to be pumped directly to the water treatment plant, and a raw water line to the Paintsville Lake along with necessary storage fee. The water

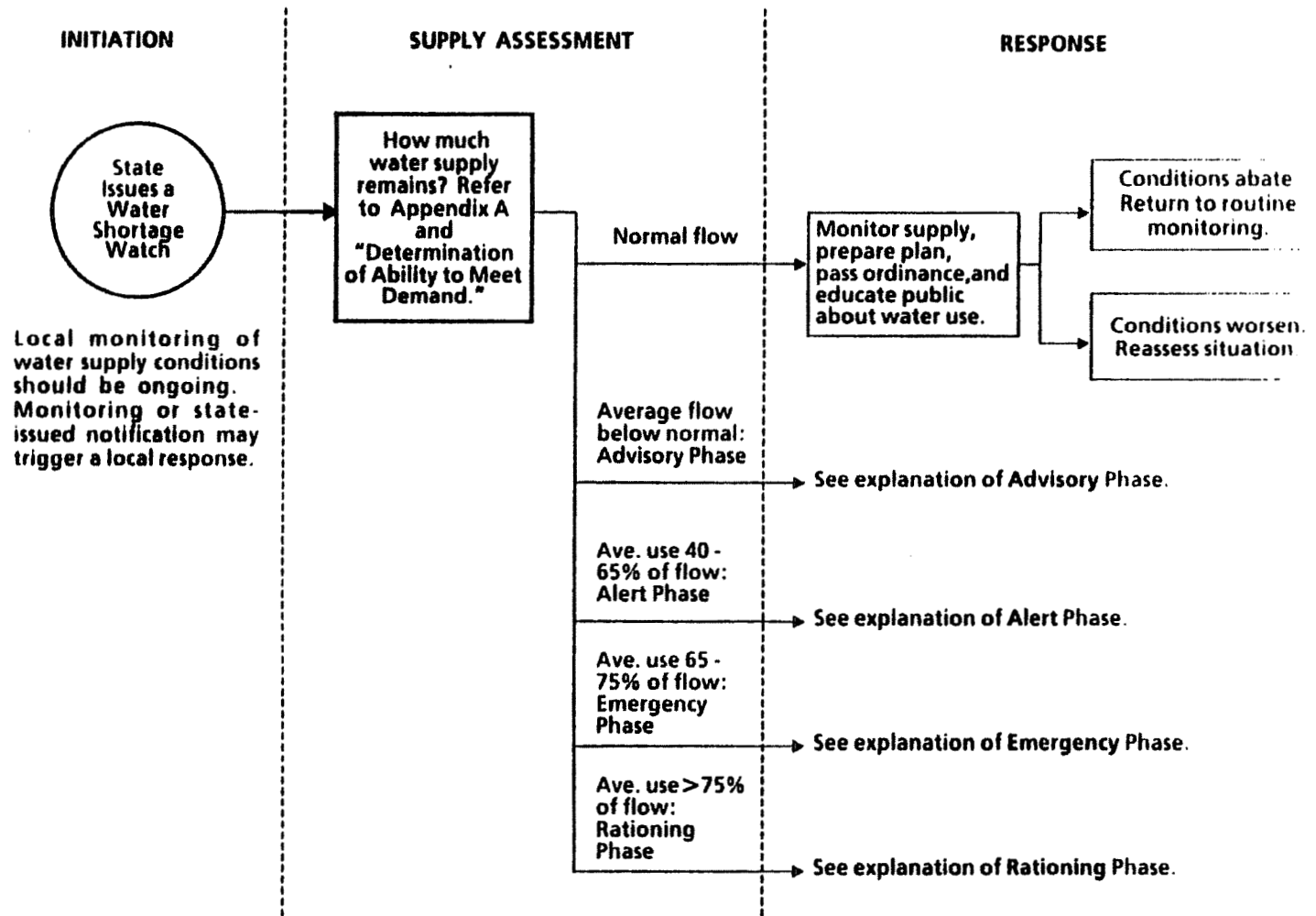
commission will employ an engineering firm to look at these options and others to provide the best and most cost effective proposal.

**6. *Ensure that the Magoffin County Water District accepts and agrees to implement this water shortage response plan.***

Secure an agreement of the Magoffin County Water District commission to accept and abide by the water shortage response plan. MCWD currently purchases over 10,000,000 gallons per month from the City which represents more than half of the current production. The chairman of the Salyersville Water Commission will secure an agreement.



**FIGURE 1**  
**Response Phase Selection - Wells**



**FIGURE 2**  
**Response Phase Selection - Streams and Springs**

## WATER SHORTAGE ADVISORY PHASE

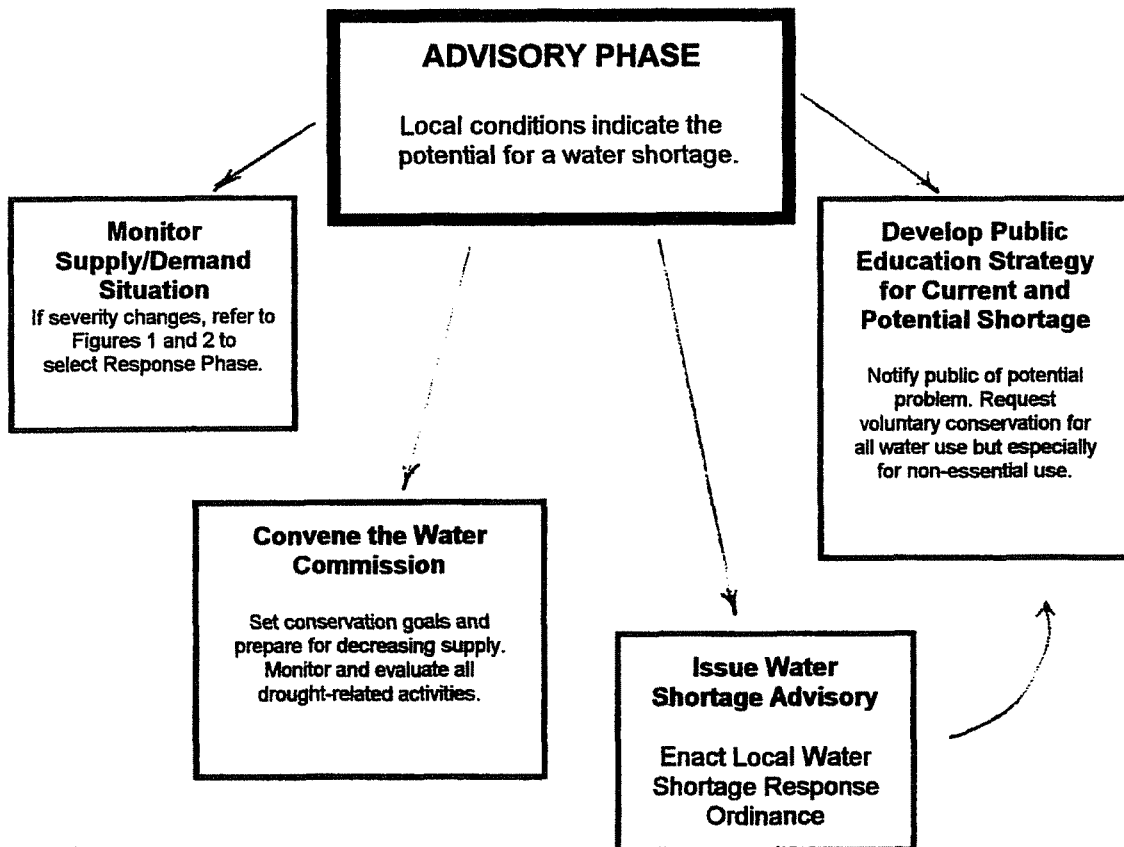
### When to Declare an Advisory

A water shortage **Advisory** will be declared when conditions indicate the potential for serious water supply shortages.

### Backup Wells

A potential shortage in the backup wells will be suspected when water supply conditions in the area are especially low, or when another well which draws from the same aquifer is showing signs of reduced supply. It could also be when the static water level is decreasing faster than usual or when drawdown is increasing faster than historically normal for the season, is increasing

FIGURE 3



when it would normally decrease, or is changing quickly.

Well measurements will be made at least weekly.

### Streams and Springs

A potential shortage will be suspected when flow in the Licking River is abnormally low. An **Advisory** will probably be appropriate for free-flowing streams and springs when demand is 20 to 40 percent of flow.

Once in effect, an **Advisory** will not be removed until demand is less than 10 percent of flow for a four week period.

Flow measurements will be made weekly.

### **What to Do in an Advisory**

During a water shortage **Advisory**, the affected public will be notified and requested to use voluntary conservation measures. This notification and request will specify a conservation goal for the system expressed as either a percentage or a specific gallon amount. An intensive public information campaign will explain specific conservation measures and keep the community informed on progress toward meeting the conservation goal.

In most circumstances, voluntary measures can only be expected to reduce water use by 5 to 15 percent. Actual water use will be closely monitored to determine whether the required reduction is actually being obtained. If it is not, the need for voluntary conservation will be more strongly emphasized and more stringent water use limitations will be adopted.

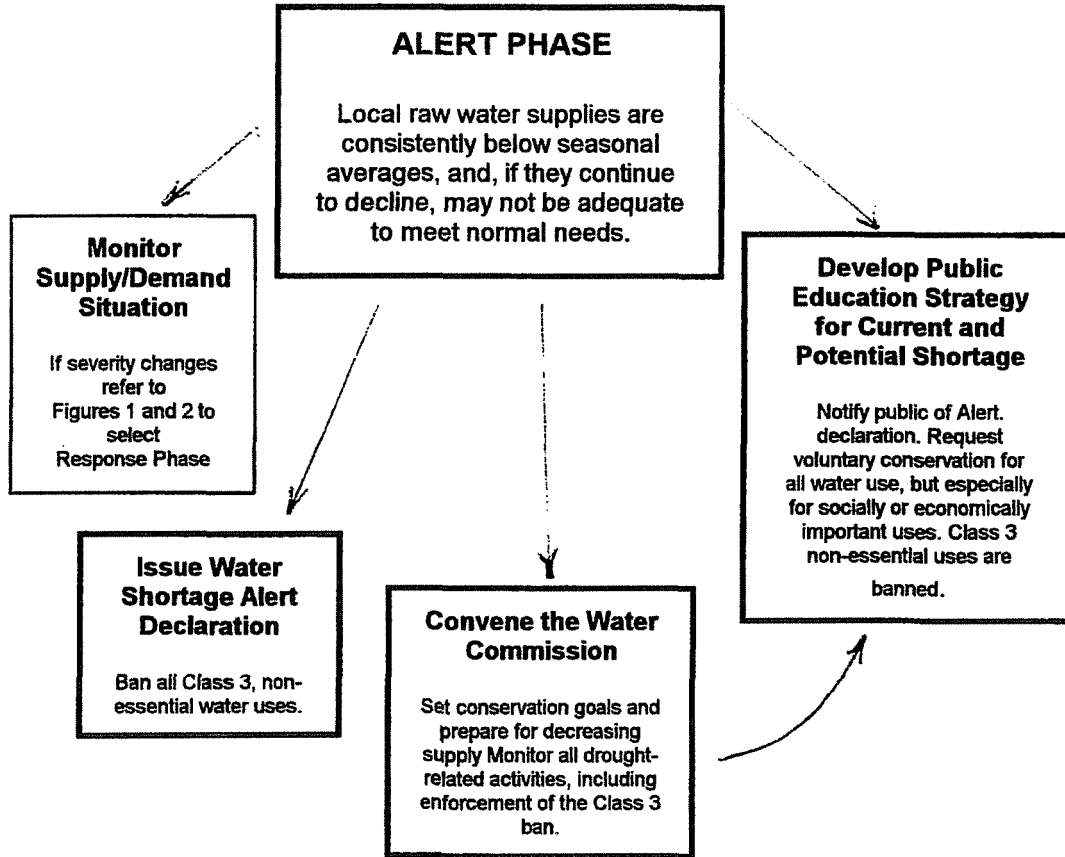
## **WATER SHORTAGE ALERT PHASE**

### **When to Declare an Alert**

A water shortage **Alert** will be declared as soon as there are visible or measurable signs that supplies are significantly lower than the seasonal norm and are diminishing. Again, an active public education strategy which sets specific conservation goals and regularly updates the community on progress toward that goal will be an integral part of community response during the **Alert** phase.

The following sections explain how the supply situation relates to the Alert phase.

FIGURE 4



#### Backup Wells

Signs of a shortage in the backup wells would be an abnormally large or rapid increase in drawdown or a large decrease in static water level. Measurements should be made daily.

#### Streams and Springs

Signs of abnormally low supply from a free-flowing stream or spring can be determined by comparisons to historical records with adjustments for changes in use. An **Alert** will be declared when demand is 40 to 65 percent of flow. Measurements will be made twice weekly.

Once in effect, an **Alert** will not be removed until demand is less than 40 percent of flow for a four week period.

## **What to Do in an Alert**

During a water shortage **Alert**, mandatory measures will be chosen and implemented by relying first on the least restrictive and least costly measures. Bans or restrictions on specific uses constitute the most effective initial mandatory program measures available for use because of the ability to apply them on both metered and unmetered systems. However, in order to ensure compliance, system users must fully understand that penalties for non-compliance will be used.

Educational efforts to encourage water conservation will need to be intensified during the **Alert** phase. Since initial mandatory measures can reduce system use from 15 to 30 percent, monitoring to ascertain decreases in water use must continue to determine whether more stringent measures, such as full rationing or pricing changes, are necessary.

## **WATER SHORTAGE EMERGENCY PHASE**

### **When to Declare an Emergency**

A water shortage **Emergency** exists when the City of Salyersville water treatment plant is experiencing a water shortage.

#### Backup Wells

If significant changes in drawdown or static water levels exist, a water shortage **Emergency** will be declared. Measure levels daily.

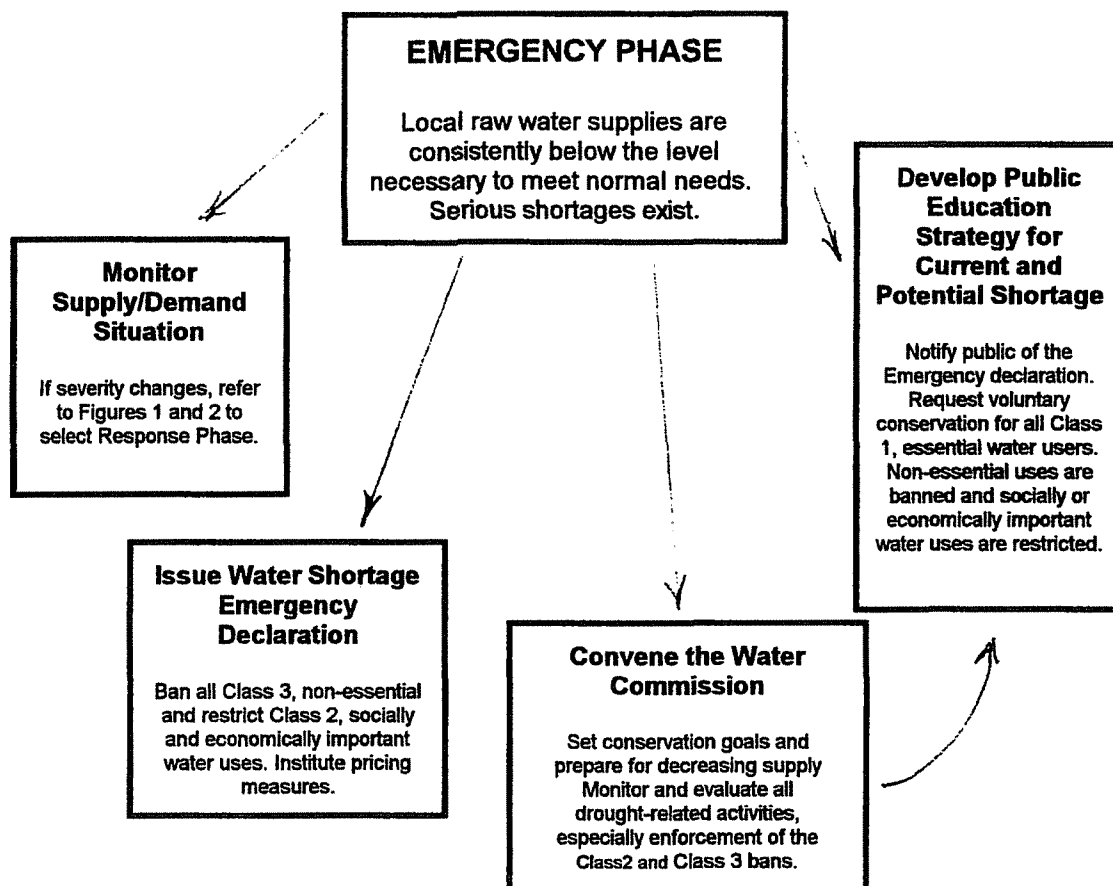
#### Streams and Springs

If demand is 65 to 75 percent of flow on a free-flowing stream or spring, a water shortage **Emergency** will be declared. Measure flow daily.

Once in effect, an **Emergency** will not be lifted until demand is less than 65 percent of flow for a four week period.



FIGURE 5



### What to Do in an Emergency

During a water shortage **Emergency**, stringent conservation measures will be implemented. Pricing measures and additional mandatory restrictions will be used to significantly reduce water usage during the **Emergency Phase**.

The educational efforts begun under the Advisory and Alert phases which established conservation goals and kept the public informed about progress toward those goals will be expanded during the **Emergency phase**. These enhanced efforts will include information on mandatory use restrictions and new water rates.

## WATER SHORTAGE RATIONING

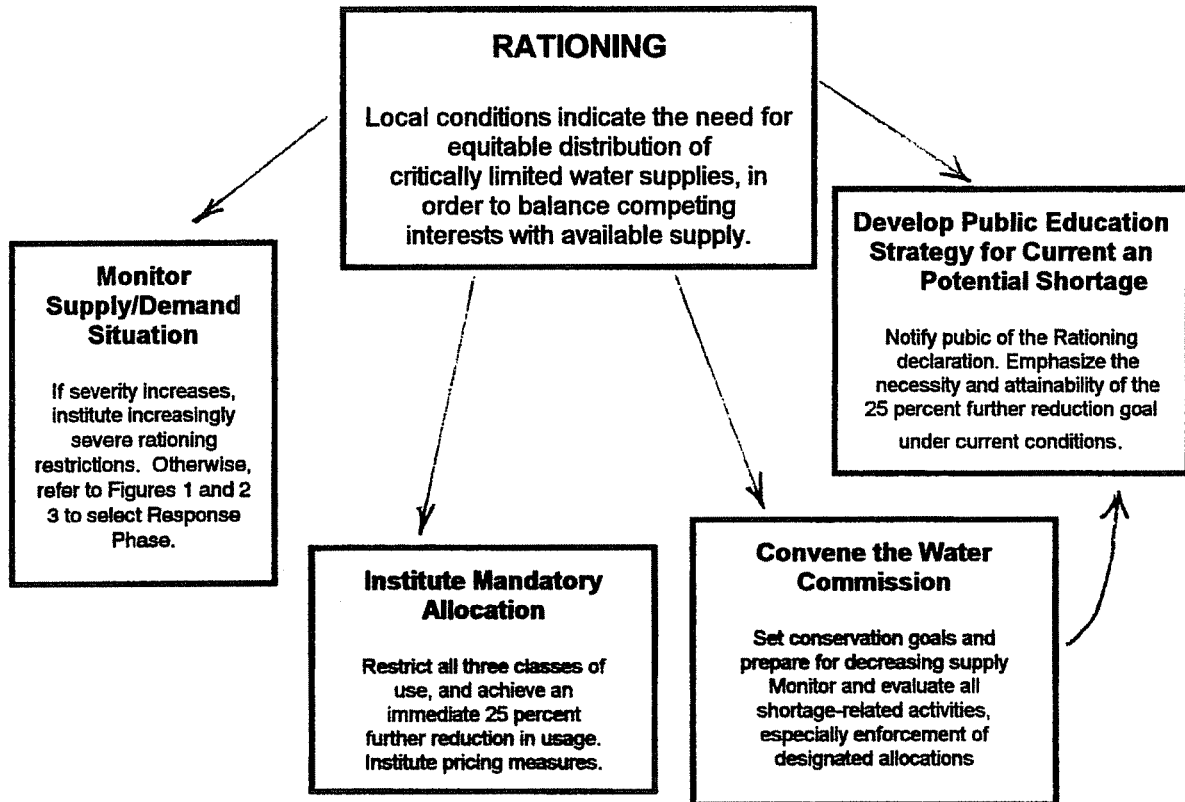
### When to Declare Rationing

**Rationing** will take place when supply is clearly inadequate to meet projected demands. The following sections explain how the supply situation relates to the Rationing phase.

### Backup Wells

**Rationing** is required when the supply appears to be running out. Measure levels daily.

FIGURE 6



### Streams and Springs

**Rationing** is necessary when demand is 75 percent or more of flow. Flow should be measured daily.

Once in effect, rationing will be continued until demand has been less than 75 percent of flow for a four week period.

### **What to Do in Rationing**

The amount of water allotted to users will be determined. Several ways are available to the City. A flat percentage requires customers to reduce use to a given percentage of their average use. A variable percentage requires customers who use larger amounts to reduce use by more than customers who use lesser amounts. Setting a maximum allowable usage requires customers to limit use to a predetermined amount.

### **RETURN TO NORMAL**

When water shortage conditions have abated and the water supply situation is returning to normal, water conservation measures employed during the **Advisory, Alert, emergency and Rationing** phases will be decreased in reverse order of implementation.

### **WATER USE CLASSIFICATIONS**

The following table shows response levels for each classification of water use. A list of water uses with classification levels follows the table.

TABLE 1  
**Conservation Per Water Use Class**  
**According to Water Shortage Response Phase**

	<b>Advisory</b>	<b>Alert</b>	<b>Emergency</b>	<b>Rationing</b>
<b>Essential</b>	Voluntarily Conserved	Voluntarily Conserved	Voluntarily Conserved	<b>Restricted</b>
<b>Socially or Economically Important</b>	Voluntarily Conserved	Voluntarily Conserved	<b>Restricted</b>	<b>Restricted</b>
<b>Non-essential</b>	Voluntarily Conserved	<b>Restricted</b>	<b>Banned</b>	<b>Banned</b>

Essential Water Uses (Class 1):

The following uses of water, listed by site or user type, are essential.

Domestic:

- water necessary to sustain human life and the lives of domestic pets, and to maintain minimum standards of hygiene and sanitation.

Health Care Facilities:

- patient care and rehabilitation.

Water Hauling:

- sales for domestic use where not reasonably available elsewhere.

Public Use:

- firefighting,
- health and public protection purposes, as specifically approved by health officials and the municipal governing body.

Socially or Economically Important Uses of Water (Class 2):

The following uses of water listed by site or user type, are socially or economically important.

**Domestic:**

- personal, in-house water use including kitchen, bathroom and laundry.

**Water Hauling:**

- non-domestic, when other sources are not reasonably available elsewhere.

**Commercial and Civic Use:**

- commercial car and truck washes,
- laundromats,
- restaurants, clubs and eating places,
- schools, churches, motels/hotels and similar commercial establishments.

**Outdoor Non-Commercial Watering:**

- minimal watering of vegetable gardens,
- minimal watering of trees where necessary for their survival.

**Outdoor Commercial or Public Watering (using conservation methods and when other sources of water are not available or feasible to use):**

- agricultural irrigation for the production of food and fiber or the maintenance of livestock,
- watering by arboretums and public gardens of national, state, regional or community significance where necessary to preserve specimens,
- watering by commercial nurseries where necessary to maintain stock,
- watering where necessary to establish or maintain revegetation or landscape plantings required pursuant to law or regulation,
- watering of woody plants where necessary to preserve them,
- minimal watering of golf course greens.

**Recreational:**

- operation of municipal swimming pools and residential pools that serve more than 25 dwelling units.

**Air Conditioning:**

- refilling for startup at the beginning of the cooling season,
- makeup of water during the cooling season,
- refilling specifically approved by health officials and the municipal governing

body, where the system has been drained for health protection or repair services.

Non-Essential (Class 3):

Any waste of water, as defined herein, is non-essential. The following uses of water, listed by site or user type, are also non-essential.

**Public Use:**

- use of fire hydrants (excluding Class I and Class II uses), including use of sprinkler caps, testing fire apparatus and fire department drills,
- flushing of sewers and hydrants except as needed to ensure public health and safety as approved by health officials and the municipal governing body.

**Commercial and Civic Use:**

- serving water in restaurants, clubs, or eating places, except by customer request,
- failure to repair a controllable leak,
- increasing water levels in scenic and recreational ponds and lakes, except as necessary to support fish and wildlife.

**Ornamental Purposes:**

- fountains, reflecting pools and artificial waterfalls.

**Outdoor Watering:**

- use of water for dirt control or compaction,
- watering of annual or non-woody plants, lawns, parks, golf course fairways, playing fields and other recreational areas,
- washing sidewalks, walkways, driveways, parking lots, tennis courts or other hard-surface areas,
- washing down buildings or structures for purposes other than immediate fire protection,
- flushing gutters or permitting water to run or accumulate in any gutter or street.

**Outdoor Commercial or Public Watering:**

- expanding nursery facilities, placing new irrigated agricultural land in

production, or planting of landscaping except when required by a site design review process,

- use of water for dirt control or compaction,
- watering of lawns, parks, golf course fairways, playing fields and other recreational areas,
- washing sidewalks, walkways, driveways, parking lots, tennis courts or other hard-surface areas.
- washing down buildings or structures for purposes other than immediate fire protection,
- flushing gutters or permitting water to run or accumulate in any gutter or street.

**Recreational uses other than those specified as Class II.**

**Non-commercial washing of motor and other vehicles.**

**Air Conditioning (see also Class II purposes):**

- refilling cooling towers after draining.





**Permit to Withdraw Public Water**

Salyersville Municipal Water

Subject Item Inventory

Permit Number:0916

Activity ID No.: APE20020001

**Subject Item Inventory:**

ID	Designation	Description
AIOO2889		
STRC1	Intake Licking River	WR: intake at mile 270.3 of the Licking River

**Subject Item Groups:**

ID	Description	Components
GACT1	SURFACE - mile 270.3 of the Licking River	STRC1 WR: intake at mile 270.3 of the Licking River

**KEY**

ACTV = Activity

AREA = Area

EQPT = Equipment

PERS = Personnel

STOR = Storage

TRMT = Treatment

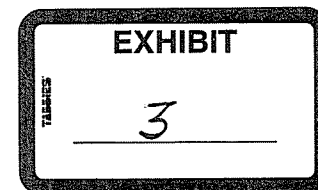
AIOO = Agency Interest

COMB = Combustion

MNPT = Monitoring Point

PORT = Transport

STRC = Structure



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**Permit to Withdraw Public Water**

Salyersville Municipal Water

Facility Requirements

Permit Number:0916

Activity ID No.: APE20020001

**Limitation Requirements:**

Condition No.	Item ID	Parameter	Condition
L-1	GACT1 (0916 Licking River)	Withdrawal	Withdrawal <= 0.750 MGD (MA) shall be allowed from the location specified in the Narrative Requirements below. [KRS 151.170] This requirement is applicable during the following months: All Year. Statistical basis: Daily maximum (MX).

**Monitoring Requirements:**

Condition No.	Item ID	Parameter	Condition
M-1	GACT1 (0916 Licking River)	Withdrawal	The permittee shall measure Withdrawal monitored by meter or other approved method daily as described in the Narrative Requirements below. [401 KAR 4:010 Section 2] This requirement is applicable during the following months: All Year. Statistical basis: Daily maximum (MX).

**Record-Keeping Requirements:**

**Withdrawal:**

Condition No.	Item ID	Condition
R-1	GACT1 (0916 Licking River)	The permittee shall perform Withdrawal recordkeeping by reporting water withdrawals daily on forms supplied by the Cabinet. [401 KAR 4:010 Section 2]

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**Permit to Withdraw Public Water**

Salyersville Municipal Water

Facility Requirements

Permit Number:0916

Activity ID No.: APE20020001

**Submittal/Action Requirements:**

Condition No.	Item ID	Condition
S-1	GACT1 (0916 Licking River)	The permittee shall submit water withdrawal reporting forms: Due monthly, by the 15th of the month. [401 KAR 4:010 Section 2]

**Narrative Requirements:**

Condition No.	Item ID	Condition
T-1	GACT1 (0916 Licking River)	The Environmental and Public Protection Cabinet authorizes the above named party to withdraw Public Water of the Commonwealth of Kentucky. This permit has been issued under provisions of KRS Chapter 151.125, 151.140, and 151.150 and regulations promulgated with respect to the withdrawal of public waters. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet, or other state, federal, or local agencies. Withdrawals are restricted to the stated quantities, times, and locations specified above. This permit represents a limited right of use and does not vest ownership nor absolute right to withdrawal or use of Public Water, nor does it guarantee that requested amounts will be available for use at all times. In times of drought or emergency, the Cabinet may temporarily alter the conditions of the permit. Any violation of the Water Resources Act of 1966 as amended is subject to penalties as set forth in KRS 151.990 and other applicable provisions of law. [KRS 151]
T-2	GACT1 (0916 Licking River)	Monitoring equipment shall be calibrated annually according to the manufacturer's recommendations and a record kept to include date of calibration, calculations for percent error, and adjustments made either to the equipment or to the use of the data obtained from the equipment. Records shall be maintained and updated annually and shall be made available upon request for review by the Cabinet. [401 KAR 4:010 Section 2]
T-3	GACT1 (0916 Licking River)	If average monthly withdrawal amounts begin to exceed permitted amounts, or if there is any change in the location of the withdrawal site, you must contact this office immediately and request a revision. [KRS 151.170]
T-4	GACT1 (0916 Licking River)	The location of the authorized withdrawal is from mile 270.3 of the Licking River in Magoffin County, with coordinates: latitude 37° 44' 12.62", longitude 83° 04' 17.87". [KRS 151.170]

**Permit to Withdraw Public Water**

Salyersville Municipal Water

Facility Requirements

Permit Number:0916

Activity ID No.: APE20020001

**Narrative Requirements:**

Condition No.	Item ID	Condition
T-5	GACT1 (0916 Licking River)	As approved, the permittee shall monitor water withdrawals with a Dynasonics meter, series TFX. The meter should be maintained according to the manufacturer's recommendations and calibrated at least once per year. In addition, you are required to notify the Division and obtain approval prior to any changes made to your approved method of measuring water withdrawals. [401 KAR 4:010 Section 2]





UNIVERSITY OF KENTUCKY

Kentucky Geological Survey  
Research and Graduate Studies  
228 Mining and Mineral Resources Building  
Lexington, KY 40506-0107  
Phone: (859) 257-5500  
Fax: (859) 257-1147  
[www.uky.edu/kgss](http://www.uky.edu/kgss)

July 6, 2004

Mr. Kent Anness  
Kentucky Infrastructure Authority  
375 Versailles Road  
Frankfort, Kentucky 40601

**Re: Investigation of the Corbin Sandstone Formation (Pennsylvanian) as a possible municipal groundwater supply for Salyersville, Magoffin County, Kentucky for funding period July 1, 2003 to June 30, 2004 (MOA:M03204869) (UKRF 4-67103)**

Dear Mr. Anness;

Enclosed with this letter please find the contract report of activities for the Salyersville Water Supply project for the 2003-2004 fiscal year. If you have any questions about the report, please do not hesitate to contact me.

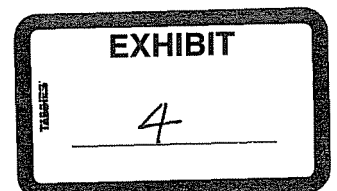
Sincerely,

A handwritten signature in cursive script that reads "Bart Davidson".

Bart Davidson  
Hydrogeologist, Water Resources Section

Cc. Dr. Jim Dinger  
Jackie Silvers

Enclosure



**Investigation of the Corbin Sandstone Formation (Pennsylvanian)  
as a possible municipal groundwater supply for Salyersville,  
Magoffin County, Kentucky**

James S. Dinger  
Bart Davidson  
Dennis H. Cumbie  
**Kentucky Geological Survey**

**Contract Report  
July 1, 2003 – June 30, 2004  
Kentucky Infrastructure Authority  
July 6, 2004**

## **EXECUTIVE SUMMARY:**

Funding provided by the Kentucky Infrastructure Authority has allowed personnel from the Kentucky Geological Survey to initiate investigations into the capability of the Corbin Sandstone Formation (Pennsylvanian-age) aquifer to provide high-quality, high-quantity raw water for the city of Salyersville in Magoffin County. Salyersville Water Board officials, Magoffin County officials, and numerous local citizens have participated in the initial phase of this project, in which four wells penetrating the Corbin Sandstone have been identified for study and one new well has been drilled.

Early results from pumping and recharge tests indicate that the tested wells can produce water ranging from 65 to 130 gallons/minute. Water-quality samples were collected from three of the existing wells, and from one newly drilled well. Two samples contained chloride concentrations higher than the EPA drinking water standard of 250 mg/L (or parts per million), and one sample (Frazier No. 1) was below that level. It is believed that the lower chloride concentrations in the Frazier No. 1 sample are due to deeper casing of the borehole that prevents entry of chloride-rich water from the upper portion of the Corbin Sandstone.

To test this hypothesis, new Corbin Sandstone wells need to be constructed with deeper casing in areas where high chloride has been found. Given the high quantity of water produced by existing wells in the Corbin Sandstone, properly constructed wells that eliminate production of chloride-rich water should provide adequate water for local communities.

## **INTRODUCTION:**

The city of Salyersville, located on the Licking River in the Eastern Kentucky Coal Field, is the county seat of Magoffin County. For many years, this city of about 2,000 people has utilized water from the Licking River as its primary municipal water supply. Recent and more stringent changes in federal drinking water regulations by the U.S. Environmental Protection Agency have made it increasingly difficult and more expensive to treat river water, and have prompted Salyersville officials to look for high-yield groundwater wells to augment the current municipal water supply.

There are many domestic (private) water wells in the Salyersville area, many of which penetrate the Pennsylvanian-aged Corbin Sandstone (formerly identified as a member of the Lee Formation), which constitutes a good regional aquifer. Known as the "Salt Sands" because of the clean, white granular appearance of the sandstone as it is drilled, the Corbin Sandstone warranted further investigation as a source of the additional water that Salyersville requires.

This study has initiated the process of evaluating the aquifer characteristics of the Corbin Sandstone with regard to water quantity and quality. Several existing water wells were used to study the aquifer, and one new well was drilled, with others in the planning stage. In addition, a University of Kentucky graduate student in geology is conducting field work in the area that will assist in evaluating the aquifer.

The purpose of this report is to provide the Kentucky Infrastructure Authority with a summary of research activities performed during the July 1, 2003 to June 30, 2004 funding period.



## RECONNAISSANCE:

Preliminary reconnaissance work during the July 1, 2003 to June 30, 2004 period consisted of the following: (1) meeting with the Salyersville Water Board and other interested parties to discuss the current water supply situation; (2) locating and assessing four existing water wells that penetrate the Corbin Sandstone in the Salyersville area to use for aquifer testing; (3) conducting a literature search on the geology and hydrology of the Corbin Sandstone; (4) conducting a survey of domestic well users in the area with the goal of further testing water quality in the Corbin Sandstone; (5) and determining the best location for drilling a new water well for aquifer testing. The four existing water wells that were identified for preliminary study include: the Gardner well, the Salyersville Number 1 well, and two Frazier wells, Numbers 1 and 2. The Gardner well and the Salyersville No. 1 well are currently used as backup municipal water-supply wells for Salyersville. Both Frazier wells were originally owned by the Ashland Oil company and were used in pressurizing oil and gas wells to increase production. Water samples were taken from three of these wells (all except Frazier No. 2), and the results are summarized below under "Detailed Investigation."

## DETAILED INVESTIGATION:

Detailed investigation during this funding period included the installation of a water well (Prater No. 1), water-quantity testing at two sites: the Prater No. 1 well and Frazier No. 1 well, and water-quality testing at four sites: the Prater No. 1 well, the Frazier No. 1 well, the Gardner well and the Salyersville No. 1 well. The locations of these sites are shown in Figure 1.

### Water Well Installation:

*Prater No. 1 well.* In May of 2003, a site was chosen to drill a well into the sandstone aquifer of the Corbin Sandstone to determine whether water of sufficient quantity and quality would be available for a public supply. The cost of drilling this well was incurred by the driller, a local oil/gas businessman, with the understanding that if water quality or quantity did not meet the needs of Salyersville, the well would be completed as a gas well. Drilling on the Prater No. 1 well began on June 30, 2003, and was completed on July 8 at a depth of 850 feet. The water was tested for chloride and found to be greater than 250 mg/L, which is the EPA Secondary Maximum Contaminant Level (SMCL) for drinking water. This value was too high to serve as an acceptable public supply without treatment, and the decision was made to convert the well into a gas well. Drilling continued to a depth of 1,350 feet into the Mississippian Weir Formation, and produced gas.

### Water Quantity:

*Prater No. 1 well.* During the drilling of this well a recovery test was performed by pressurizing the hole through the drill stem, then removing the stem for 30 feet and calculating how much water refilled that volume. This test indicated a recovery rate of

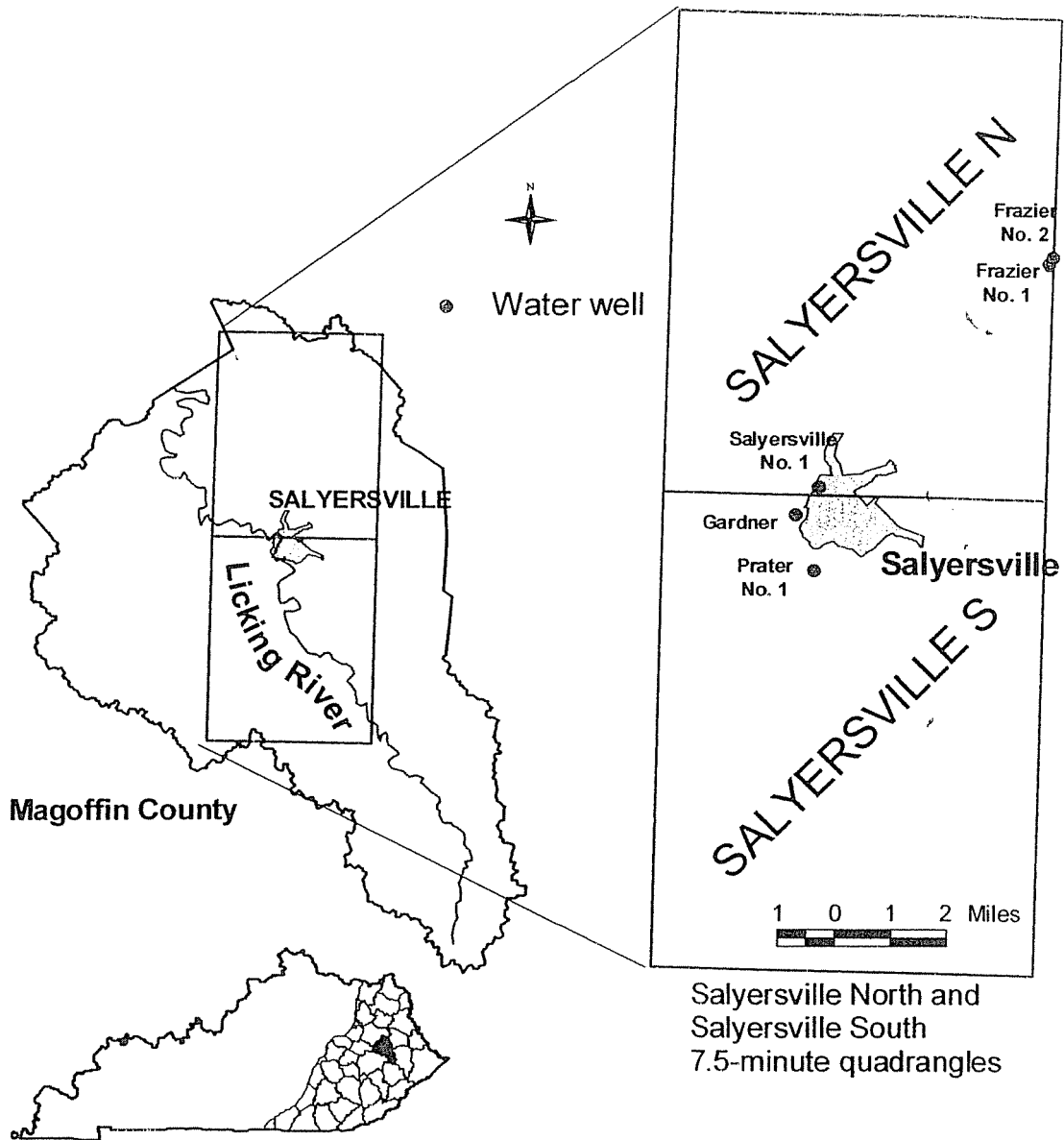


Figure 1. Location map for Magoffin County and the Salyersville study area.

approximately 130 gallons per minute. A full pumping test was not performed on the well because it was converted to a gas well due to high chloride values.

**Frazier No. 1 well.** A pumping test of this well began on May 11<sup>th</sup>, and ran for just over 24 hours through May 12<sup>th</sup>. Water levels were monitored continuously in the well, and also in the Frazier No. 2 well located approximately 650 feet to the northeast. Frazier No. 1 was pumped at a constant rate of 65 gallons per minute (gal/min), for a total discharge of 93,600 gallons. Figure 2 shows that the water level curve of Frazier No. 2 was not affected by the drawdown in the pumping well, indicating that the observation well (No. 2) was out of the sphere of influence of the pumping well (No. 1). Frazier Number 1 recharged approximately 96% within an hour of turning off the pump. The pumping test showed that Frazier No. 1 was capable of a sustainable yield of at least 65 gallons per minute for long periods of time. Both wells at this site will continue to be monitored to observe seasonal changes in water level, and additional wells are planned at the site for further aquifer testing.

### **Water Quality:**

A total of six water-quality samples were taken from four wells during the study. The actual laboratory analysis reports for these samples are provided in Appendix A.

**Prater No. 1 well.** During the drilling of this well, one water sample was collected on 7/7/03 and analyzed for water quality. A summary of the results follows: specific conductance (1880  $\mu\text{S}/\text{cm}$ ), bicarbonate (599 mg/L), chloride (288 mg/L) and sodium (372 mg/L).

**Frazier No. 1 well.** During the pumping test of Frazier No. 1 on 5/11-12/04, three samples were collected at different times during the test and analyzed for water quality. A summary of the results for all three samples follows: [**Sample 1 - 5/11/04 - 12 p.m.**] specific conductance (406  $\mu\text{S}/\text{cm}$ ), bicarbonate (184 mg/L), chloride (4.9 mg/L) and sodium (7.49 mg/L); [**Sample 2 - 5/11/04 - 7 p.m.**]: specific conductance (436  $\mu\text{S}/\text{cm}$ ), bicarbonate (178 mg/L), chloride (6.3 mg/L) and sodium (7.81 mg/L), and [**Sample 3 - 7/12/04 - 2 p.m.**]: specific conductance (444  $\mu\text{S}/\text{cm}$ ), bicarbonate (172 mg/L), chloride (9.3 mg/L) and sodium (8.42 mg/L). This water is of sufficient quality to use as a public water supply, but using the well would require additional work, which may be considered at a later date.

**Gardner well.** A water sample was taken from the Gardner well in downtown Salyersville on 7/28/03. A summary of the results follows: specific conductance (1810  $\mu\text{S}/\text{cm}$ ), bicarbonate (513 mg/L), chloride (204.8 mg/L) and sodium (345 mg/L).

**Salyersville No. 1 well.** A water sample was taken from the Salyersville No. 1 well in downtown Salyersville on 7/8/03. A summary of the results includes: specific conductance (1430  $\mu\text{S}/\text{cm}$ ), bicarbonate (377 mg/L), chloride (255 mg/L) and sodium (256 mg/L).

**Graduate Study project.** A University of Kentucky graduate student in geology has been conducting a survey of domestic well users in the Salyersville area in preparation for completing his Master's thesis on "Aquifer characteristics of Lower Pennsylvanian sandstones in the Salyersville, Kentucky area." His work includes testing private water supplies (most of which were drilled into the *upper* Corbin Sandstone - water in the lower part of this sandstone is generally better quality than the upper part) for isotope levels to determine the source of recharge for water in this aquifer. Data generated from this thesis project may be helpful in assessing aquifer characteristics for the present study.

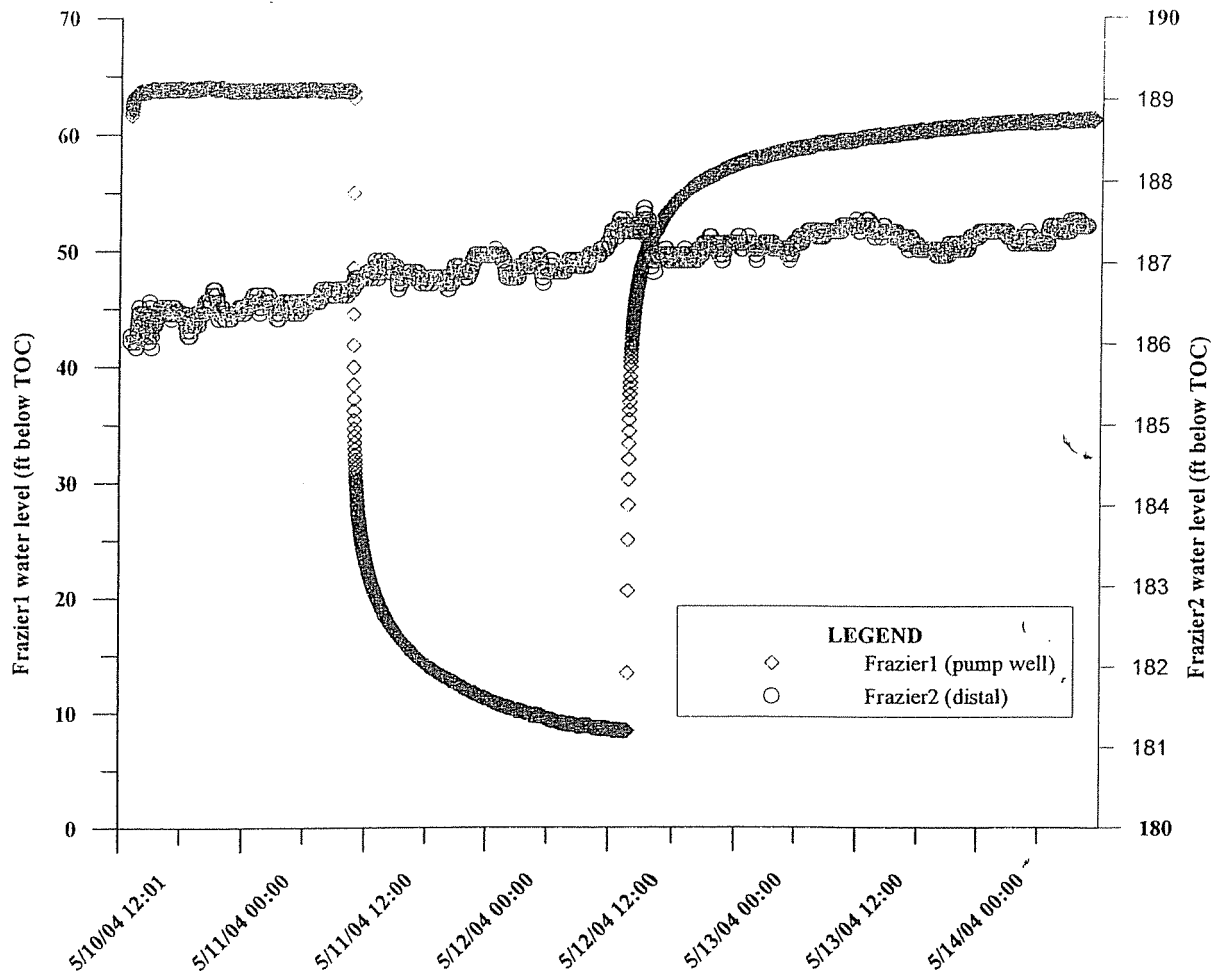


Figure 2. Drawdown curve for Frazier No. 1 pumping test, May 10-14, 2004.

**FUTURE WORK:**

The completion of additional water wells in the lower "Salt Sands" of the Corbin Sandstone, both at the Frazier site and at a site near the Licking River in downtown Salyersville, will allow testing to determine aquifer characteristics. If the water quantity and quality in these wells are sufficient to augment the existing public supply, personnel from the Kentucky Geological Survey, in conjunction with the driller who owns the leases for these wells, plan to meet with the Salyersville Water Board to discuss providing additional water to Salyersville. A comprehensive report on the Corbin Sandstone aquifer will be prepared by KGS, to be produced as a Survey publication and released to the public.

## APPENDIX A



Report of Analysis

December 4, 2003

David R. Wunsch  
 WRS/KGS

Project ID: HQRF  
 Project Account: 4-22268  
 Sample Field ID: S1-745 (Probe #1)  
 Sample Collector: ROBERT ANDREWS  
 Collection Date: July 7, 2003  
 Collection Time: 4:15:00 PM

Lab Sample ID: GS16801  
 Submittal Date: July 9, 2003

The following analytical results have been obtained for the indicated sample which was submitted to the laboratory:

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
<i>Dissolved Metals by ICP</i>				
Aluminum, Dissolved by ICP	Less Than MDL	mg/L	0.050	
Antimony, Dissolved by ICP	Less Than MDL	mg/L	0.050	
Arsenic, Dissolved by ICP	Less Than MDL	mg/L	0.021	
Barium, Dissolved by ICP	0.10	mg/L	0.004	
Beryllium, Dissolved by ICP	Less Than MDL	mg/L	0.001	
Boron, Dissolved by ICP	0.26	mg/L	0.006	
Cadmium, Dissolved by ICP	Less Than MDL	mg/L	0.008	
Calcium, Dissolved by ICP	4.89	mg/L	0.021	
Chromium, Dissolved by ICP	0.016	mg/L	0.015	
Cobalt, Dissolved by ICP	Less Than MDL	mg/L	0.004	
Copper, Dissolved by ICP	Less Than MDL	mg/L	0.009	
Gold, Dissolved by ICP	Less Than MDL	mg/L	0.022	
Iron, Dissolved by ICP	0.64	mg/L	0.014	
Lead, Dissolved by ICP	Less Than MDL	mg/L	0.020	
Lithium, Dissolved by ICP	0.20	mg/L	0.004	
Magnesium, Dissolved by ICP	1.87	mg/L	0.005	
Manganese, Dissolved by ICP	0.07	mg/L	0.001	
Nickel, Dissolved by ICP	Less Than MDL	mg/L	0.005	
Phosphorus, Dissolved by ICP	Less Than MDL	mg/L	0.015	
Potassium, Dissolved by ICP	3.61	mg/L	0.214	
Selenium, Dissolved by ICP	Less Than MDL	mg/L	0.016	
Silicon, Dissolved by ICP	2.96	mg/L	0.041	
Silver, Dissolved by ICP	Less Than MDL	mg/L	0.017	
Sodium, Dissolved by ICP	372	mg/L	0.072	
Strontium, Dissolved by ICP	0.16	mg/L	0.039	
Sulfur, Dissolved by ICP	Less Than MDL	mg/L	0.016	
Thallium, Dissolved by ICP	Less Than MDL	mg/L	0.051	



Tin, Dissolved by ICP	Less Than MDL	mg/L	0.138
Vanadium, Dissolved by ICP	0.05	mg/L	0.019
Zinc, Dissolved by ICP	0.19	mg/L	0.003

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
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*Total Metals by ICAP*

Aluminum, Total by ICP	Less Than MDL	mg/L	0.05
Antimony, Total by ICP	Less Than MDL	mg/L	0.05
Arsenic, Total by ICP	Less Than MDL	mg/L	0.021
Barium, Total by ICP	0.17	mg/L	0.004
Beryllium, Total by ICP	Less Than MDL	mg/L	0.001
Boron, Total by ICP	0.25	mg/L	0.006
Cadmium, Total by ICP	Less Than MDL	mg/L	0.008
Calcium, Total by ICP	4.83	mg/L	0.021
Chromium, Total by ICP	0.02	mg/L	0.015
Cobalt, Total by ICP	0.006	mg/L	0.004
Copper, Total by ICP	Less Than MDL	mg/L	0.009
Gold, Total by ICP	Less Than MDL	mg/L	0.022
Iron, Total by ICP	6.13	mg/L	0.014
Lead, Total by ICP	Less Than MDL	mg/L	0.02
Lithium, Total by ICP	0.17	mg/L	0.004
Magnesium, Total by ICP	1.78	mg/L	0.005
Manganese, Total by ICP	0.12	mg/L	0.001
Nickel, Total by ICP	0.01	mg/L	0.005
Phosphorus, Total by ICP	Less Than MDL	mg/L	0.015
Potassium, Total by ICP	3.43	mg/L	0.214
Selenium, Total by ICP	Less Than MDL	mg/L	0.016
Silicon, Total by ICP	3.31	mg/L	0.041
Silver, Total by ICP	Less Than MDL	mg/L	0.017
Sodium, Total by ICP	346	mg/L	0.072
Strontium, Total by ICP	0.17	mg/L	0.039
Sulfur, Total by ICP	Less Than MDL	mg/L	0.016
Thalium, Total by ICP	Less Than MDL	mg/L	0.051
Tin, Total by ICP	Less Than MDL	mg/L	0.138
Vanadium, Total by ICP	0.04	mg/L	0.019
Zinc, Total by ICP	0.09	mg/L	0.003

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
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Alkalinity	491	mg/L CaCO3	4
Bicarbonate	599	mg/L CaCO3	5
Bromide	1.1	mg/L	1.0
Charge-balance Calculation	3.7	%	
Chloride	288	mg/L	1.0
Conductivity	1677	uU/cm	1
Fluoride	0.99	mg/L	0.01
Nitrate (NO3)	Less Than MDL	mg/L	0.02



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Nitrate-N (NO3-N)	Less Than MDL	mg/L	0.004
Nitrite (NO2)	Less Than MDL	mg/L	0.002
Nitrite-N (NO2-N)	Less Than MDL	mg/L	0.001
pH	8.54	pH Units	0.01
Sulfate	Less Than MDL	mg/L	5.0
Total Dissolved Solids	892	mg/L	10

Comments:

Project ID: HQRF  
 Project Account: 4-22268 *Salyersville*  
 Sample Field ID: SC1 *(Well #1)*

Lab Sample ID: GS16802  
 Submittal Date: July 9, 2003

Sample Collector: ROBERT ANDREWS  
 Collection Date: July 8, 2003  
 Collection Time: 4:00:00 PM

The following analytical results have been obtained for the indicated sample which was submitted to the laboratory:

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
<i>Dissolved Metals by ICAP</i>				
Aluminum, Dissolved by ICP	Less Than MDL	mg/L	0.050	
Antimony, Dissolved by ICP	Less Than MDL	mg/L	0.050	
Arsenic, Dissolved by ICP	Less Than MDL	mg/L	0.021	
Barium, Dissolved by ICP	0.40	mg/L	0.004	
Beryllium, Dissolved by ICP	Less Than MDL	mg/L	0.001	
Boron, Dissolved by ICP	0.15	mg/L	0.006	
Cadmium, Dissolved by ICP	Less Than MDL	mg/L	0.008	
Calcium, Dissolved by ICP	4.32	mg/L	0.021	
Chromium, Dissolved by ICP	Less Than MDL	mg/L	0.015	
Cobalt, Dissolved by ICP	Less Than MDL	mg/L	0.004	
Copper, Dissolved by ICP	Less Than MDL	mg/L	0.009	
Gold, Dissolved by ICP	Less Than MDL	mg/L	0.022	
Iron, Dissolved by ICP	0.07	mg/L	0.014	
Lead, Dissolved by ICP	Less Than MDL	mg/L	0.020	
Lithium, Dissolved by ICP	0.14	mg/L	0.004	
Magnesium, Dissolved by ICP	1.70	mg/L	0.005	
Manganese, Dissolved by ICP	0.003	mg/L	0.001	
Nickel, Dissolved by ICP	Less Than MDL	mg/L	0.005	
Phosphorus, Dissolved by ICP	0.03	mg/L	0.015	
Potassium, Dissolved by ICP	2.09	mg/L	0.214	
Selenium, Dissolved by ICP	Less Than MDL	mg/L	0.016	
Silicon, Dissolved by ICP	3.36	mg/L	0.041	
Silver, Dissolved by ICP	Less Than MDL	mg/L	0.017	
Sodium, Dissolved by ICP	251	mg/L	0.072	
Strontium, Dissolved by ICP	0.20	mg/L	0.039	

Sulfur, Dissolved by ICP	Less Than MDL	mg/L	0.016
Thallium, Dissolved by ICP	Less Than MDL	mg/L	0.051
Tin, Dissolved by ICP	Less Than MDL	mg/L	0.138
Vanadium, Dissolved by ICP	0.03	mg/L	0.019
Zinc, Dissolved by ICP	0.10	mg/L	0.003

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
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*Total Metals by ICAP*

Aluminum, Total by ICP	Less Than MDL	mg/L	0.05
Antimony, Total by ICP	Less Than MDL	mg/L	0.05
Arsenic, Total by ICP	Less Than MDL	mg/L	0.021
Barium, Total by ICP	0.41	mg/L	0.004
Beryllium, Total by ICP	Less Than MDL	mg/L	0.001
Boron, Total by ICP	0.15	mg/L	0.006
Cadmium, Total by ICP	Less Than MDL	mg/L	0.008
Calcium, Total by ICP	4.30	mg/L	0.021
Chromium, Total by ICP	Less Than MDL	mg/L	0.015
Cobalt, Total by ICP	Less Than MDL	mg/L	0.004
Copper, Total by ICP	Less Than MDL	mg/L	0.009
Gold, Total by ICP	Less Than MDL	mg/L	0.022
Iron, Total by ICP	0.08	mg/L	0.014
Lead, Total by ICP	Less Than MDL	mg/L	0.02
Lithium, Total by ICP	0.11	mg/L	0.004
Magnesium, Total by ICP	1.71	mg/L	0.005
Manganese, Total by ICP	0.004	mg/L	0.001
Nickel, Total by ICP	Less Than MDL	mg/L	0.005
Phosphorus, Total by ICP	0.03	mg/L	0.015
Potassium, Total by ICP	2.15	mg/L	0.214
Selenium, Total by ICP	Less Than MDL	mg/L	0.016
Silicon, Total by ICP	3.31	mg/L	0.041
Silver, Total by ICP	Less Than MDL	mg/L	0.017
Sodium, Total by ICP	256	mg/L	0.072
Strontium, Total by ICP	0.21	mg/L	0.039
Sulfur, Total by ICP	Less Than MDL	mg/L	0.016
Thalium, Total by ICP	Less Than MDL	mg/L	0.051
Tim, Total by ICP	Less Than MDL	mg/L	0.138
Vanadium, Total by ICP	0.04	mg/L	0.019
Zinc, Total by ICP	0.09	mg/L	0.003

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
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Alkalinity	309	mg/L CaCO <sub>3</sub>	4
Bicarbonate	377	mg/L CaCO <sub>3</sub>	5
Bromide	1.1	mg/L	1.0
Charge-balance Calculation	8.0	%	
Chloride	255	mg/L	1.0
Conductivity	1307	uU/cm	1



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Fluoride	0.48	mg/L	0.01
Nitrate (NO3)	Less Than MDL	mg/L	0.02
Nitrate-N (NO3-N)	Less Than MDL	mg/L	0.004
Nitrite (NO2)	Less Than MDL	mg/L	0.002
Nitrite-N (NO2-N)	Less Than MDL	mg/L	0.001
pH	8.45	pH Units	0.01
Sulfate	Less Than MDL	mg/L	5.0
Total Dissolved Solids	644	mg/L	10

Comments:



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If there are questions regarding this data, please contact

Henry Francis

A handwritten signature in cursive script that reads "Henry Francis".

Laboratory Services Manager

Phone: 859-257-5500

FAX: 859-257-1147

e-mail: Francis@kgs mm.uky.edu



Report of Analysis

December 4, 2003

Robert Andrews  
 WRS/KGS

Project ID: HYKRA  
 Project Account: 2-05015  
 Sample Field ID: SC2 (Gardner Well)

Lab Sample ID: GS16923  
 Submittal Date: July 29, 2003

Sample Collector: ROBERT ANDREWS  
 Collection Date: July 28, 2003  
 Collection Time: 12:34:00 PM

The following analytical results have been obtained for the indicated sample which was submitted to the laboratory:

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
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*IC Analysis: Cl, NO3, SO4*

Chloride	204.8	mg/L	1.0	
Nitrate(NO3)	0.04	mg/L	0.02	
Nitrate-N(NO3-N)	0.009	mg/L	0.004	
Sulfate	Less Than MDL	mg/L	5.0	

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
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*Dissolved Metals by ICAP*

Aluminum, Dissolved by ICP	Less Than MDL	mg/L	0.050	
Antimony, Dissolved by ICP	Less Than MDL	mg/L	0.050	
Arsenic, Dissolved by ICP	Less Than MDL	mg/L	0.021	
Barium, Dissolved by ICP	0.28	mg/L	0.004	
Beryllium, Dissolved by ICP	Less Than MDL	mg/L	0.001	
Boron, Dissolved by ICP	0.22	mg/L	0.006	
Cadmium, Dissolved by ICP	Less Than MDL	mg/L	0.008	
Calcium, Dissolved by ICP	6.53	mg/L	0.021	
Chromium, Dissolved by ICP	Less Than MDL	mg/L	0.015	
Cobalt, Dissolved by ICP	Less Than MDL	mg/L	0.004	
Copper, Dissolved by ICP	Less Than MDL	mg/L	0.009	
Gold, Dissolved by ICP	Less Than MDL	mg/L	0.022	
Iron, Dissolved by ICP	0.39	mg/L	0.014	
Lead, Dissolved by ICP	Less Than MDL	mg/L	0.020	
Lithium, Dissolved by ICP	0.30	mg/L	0.004	
Magnesium, Dissolved by ICP	2.23	mg/L	0.005	
Manganese, Dissolved by ICP	0.005	mg/L	0.001	
Nickel, Dissolved by ICP	Less Than MDL	mg/L	0.005	
Phosphorus, Dissolved by ICP	Less Than MDL	mg/L	0.015	
Potassium, Dissolved by ICP	2.86	mg/L	0.214	
Selenium, Dissolved by ICP	Less Than MDL	mg/L	0.016	

Silicon, Dissolved by ICP	3.45	mg/L	0.041
Silver, Dissolved by ICP	Less Than MDL	mg/L	0.017
Sodium, Dissolved by ICP	308	mg/L	0.072
Strontium, Dissolved by ICP	0.19	mg/L	0.039
Sulfur, Dissolved by ICP	Less Than MDL	mg/L	0.016
Thallium, Dissolved by ICP	Less Than MDL	mg/L	0.051
Tin, Dissolved by ICP	Less Than MDL	mg/L	0.138
Vanadium, Dissolved by ICP	Less Than MDL	mg/L	0.019
Zinc, Dissolved by ICP	0.14	mg/L	0.003

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
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*Total Metals by ICAP*

Aluminum, Total by ICP	0.07	mg/L	0.05
Antimony, Total by ICP	Less Than MDL	mg/L	0.05
Arsenic, Total by ICP	Less Than MDL	mg/L	0.021
Barium, Total by ICP	0.33	mg/L	0.004
Beryllium, Total by ICP	Less Than MDL	mg/L	0.001
Boron, Total by ICP	0.24	mg/L	0.006
Cadmium, Total by ICP	Less Than MDL	mg/L	0.008
Calcium, Total by ICP	7.02	mg/L	0.021
Chromium, Total by ICP	Less Than MDL	mg/L	0.015
Cobalt, Total by ICP	Less Than MDL	mg/L	0.004
Copper, Total by ICP	Less Than MDL	mg/L	0.009
Gold, Total by ICP	Less Than MDL	mg/L	0.022
Iron, Total by ICP	0.44	mg/L	0.014
Lead, Total by ICP	Less Than MDL	mg/L	0.02
Lithium, Total by ICP	0.32	mg/L	0.004
Magnesium, Total by ICP	2.37	mg/L	0.005
Manganese, Total by ICP	0.006	mg/L	0.001
Nickel, Total by ICP	Less Than MDL	mg/L	0.005
Phosphorus, Total by ICP	Less Than MDL	mg/L	0.015
Potassium, Total by ICP	3.17	mg/L	0.214
Selenium, Total by ICP	Less Than MDL	mg/L	0.016
Silicon, Total by ICP	3.90	mg/L	0.041
Silver, Total by ICP	Less Than MDL	mg/L	0.017
Sodium, Total by ICP	345	mg/L	0.072
Strontium, Total by ICP	0.20	mg/L	0.039
Sulfur, Total by ICP	Less Than MDL	mg/L	0.016
Thalium, Total by ICP	Less Than MDL	mg/L	0.051
Tim, Total by ICP	Less Than MDL	mg/L	0.138
Vanadium, Total by ICP	Less Than MDL	mg/L	0.019
Zinc, Total by ICP	0.14	mg/L	0.003

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
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Alkalinity	421	mg/L CaCO <sub>3</sub>	4	
Bicarbonate	513	mg/L CaCO <sub>3</sub>	5	



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Bromide	1.17	mg/L	1.0
Fluoride	0.68	mg/L	0.01
Nitrite (NO <sub>2</sub> )	0.004	mg/L	0.002
Nitrite-N (NO <sub>2</sub> -N)	0.001	mg/L	0.001
Total Dissolved Solids	766	mg/L	10

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Comments:



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If there are questions regarding this data, please contact.

Henry Francis

A handwritten signature in black ink that reads "Henry Francis".

Laboratory Services Manager

Phone: 859-257-5500

FAX: 859-257-1147

e-mail: [Francis@kgs.mm.uky.edu](mailto:Francis@kgs.mm.uky.edu)



Report of Analysis

June 3, 2004

Dennis H. Cumbie  
 KGS

Project ID: DCMWSLET  
 Project Account: 4-67103  
 Sample Field ID: FRAZ0501 (Frazier No. 1)  
 Sample Collector: DENNIS CUMBY Sample 1  
 Collection Date: May 11, 2004  
 Collection Time: 12:00:00 PM  
 Lab Sample ID: GS18494  
 Submittal Date: May 13, 2004

The following analytical results have been obtained for the indicated sample which was submitted to the laboratory:

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
<i>Dissolved Metals by ICP</i>				
Aluminum, Dissolved by ICP	Less Than MDL	mg/L	0.050	
Antimony, Dissolved by ICP	Less Than MDL	mg/L	0.050	
Arsenic, Dissolved by ICP	Less Than MDL	mg/L	0.021	
Barium, Dissolved by ICP	0.05	mg/L	0.004	
Beryllium, Dissolved by ICP	Less Than MDL	mg/L	0.001	
Boron, Dissolved by ICP	0.01	mg/L	0.006	
Cadmium, Dissolved by ICP	Less Than MDL	mg/L	0.008	
Calcium, Dissolved by ICP	32.1	mg/L	0.021	
Chromium, Dissolved by ICP	Less Than MDL	mg/L	0.015	
Cobalt, Dissolved by ICP	Less Than MDL	mg/L	0.004	
Copper, Dissolved by ICP	Less Than MDL	mg/L	0.009	
Gold, Dissolved by ICP	Less Than MDL	mg/L	0.022	
Iron, Dissolved by ICP	2.62	mg/L	0.014	
Lead, Dissolved by ICP	Less Than MDL	mg/L	0.020	
Lithium, Dissolved by ICP	0.04	mg/L	0.004	
Magnesium, Dissolved by ICP	11.72	mg/L	0.005	
Manganese, Dissolved by ICP	0.07	mg/L	0.001	
Nickel, Dissolved by ICP	Less Than MDL	mg/L	0.005	
Phosphorus, Dissolved by ICP	0.04	mg/L	0.015	
Potassium, Dissolved by ICP	1.06	mg/L	0.214	
Selenium, Dissolved by ICP	Less Than MDL	mg/L	0.016	
Silicon, Dissolved by ICP	4.64	mg/L	0.041	
Silver, Dissolved by ICP	Less Than MDL	mg/L	0.017	
Sodium, Dissolved by ICP	7.23	mg/L	0.072	
Strontium, Dissolved by ICP	0.05	mg/L	0.039	
Sulfur, Dissolved by ICP	1.50	mg/L	0.016	
Thallium, Dissolved by ICP	Less Than MDL	mg/L	0.051	



Tin, Dissolved by ICP	Less Than MDL	mg/L	0.138
Vanadium, Dissolved by ICP	Less Than MDL	mg/L	0.019
Zinc, Dissolved by ICP	0.039	mg/L	0.003

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
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*Total Metals by ICAP*

Aluminum, Total by ICP	Less Than MDL	mg/L	0.05
Antimony, Total by ICP	Less Than MDL	mg/L	0.05
Arsenic, Total by ICP	Less Than MDL	mg/L	0.021
Barium, Total by ICP	0.06	mg/L	0.004
Beryllium, Total by ICP	Less Than MDL	mg/L	0.001
Boron, Total by ICP	0.02	mg/L	0.006
Cadmium, Total by ICP	Less Than MDL	mg/L	0.008
Calcium, Total by ICP	32.5	mg/L	0.021
Chromium, Total by ICP	Less Than MDL	mg/L	0.015
Cobalt, Total by ICP	Less Than MDL	mg/L	0.004
Copper, Total by ICP	Less Than MDL	mg/L	0.009
Gold, Total by ICP	Less Than MDL	mg/L	0.022
Iron, Total by ICP	2.86	mg/L	0.014
Lead, Total by ICP	Less Than MDL	mg/L	0.02
Lithium, Total by ICP	0.04	mg/L	0.004
Magnesium, Total by ICP	11.82	mg/L	0.005
Manganese, Total by ICP	0.073	mg/L	0.001
Nickel, Total by ICP	Less Than MDL	mg/L	0.005
Phosphorus, Total by ICP	0.05	mg/L	0.015
Potassium, Total by ICP	1.21	mg/L	0.214
Selenium, Total by ICP	Less Than MDL	mg/L	0.016
Silicon, Total by ICP	4.69	mg/L	0.041
Silver, Total by ICP	Less Than MDL	mg/L	0.017
Sodium, Total by ICP	7.49	mg/L	0.072
Strontium, Total by ICP	0.05	mg/L	0.039
Sulfur, Total by ICP	1.43	mg/L	0.016
Thallium, Total by ICP	Less Than MDL	mg/L	0.051
Tin, Total by ICP	Less Than MDL	mg/L	0.138
Vanadium, Total by ICP	Less Than MDL	mg/L	0.019
Zinc, Total by ICP	0.05	mg/L	0.003

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
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Acidity	55	mg/L	8
Alkalinity	151	mg/L CaCO3	4
Bicarbonate	184	mg/L CaCO3	5
Bromide	Less Than MDL	mg/L	1.0
Charge-balance Calculation	2.51	%	
Chloride	4.9	mg/L	1.0
Conductivity	406	uU/cm	1
Fluoride	0.1	mg/L	0.01



Nitrate (NO3)	Less Than MDL	mg/L	0.02
Nitrate-N (NO3-N)	Less Than MDL	mg/L	0.004
Sulfate	Less Than MDL	mg/L	5.0
Total Dissolved Solids	130	mg/L	10
Total Hardness (by Titration)	158	mg/L CaCO3	1
Total Suspended Solids	6	mg/L	3

Comments:

Project ID: DCMWSLET  
 Project Account: 4-67103  
 Sample Field ID: FRAZ0502 (Frazier No. 1)  
 Sample Collector: DENNIS CUMBY Sample 2  
 Collection Date: May 11, 2004  
 Collection Time: 7:00:00 PM  
 Lab Sample ID: GS18495  
 Submittal Date: May 13, 2004

The following analytical results have been obtained for the indicated sample which was submitted to the laboratory:

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
<i>Dissolved Metals by ICAP</i>				
Aluminum, Dissolved by ICP	Less Than MDL	mg/L	0.050	
Antimony, Dissolved by ICP	Less Than MDL	mg/L	0.050	
Arsenic, Dissolved by ICP	Less Than MDL	mg/L	0.021	
Barium, Dissolved by ICP	0.06	mg/L	0.004	
Beryllium, Dissolved by ICP	Less Than MDL	mg/L	0.001	
Boron, Dissolved by ICP	0.009	mg/L	0.006	
Cadmium, Dissolved by ICP	Less Than MDL	mg/L	0.008	
Calcium, Dissolved by ICP	34.2	mg/L	0.021	
Chromium, Dissolved by ICP	Less Than MDL	mg/L	0.015	
Cobalt, Dissolved by ICP	Less Than MDL	mg/L	0.004	
Copper, Dissolved by ICP	Less Than MDL	mg/L	0.009	
Gold, Dissolved by ICP	Less Than MDL	mg/L	0.022	
Iron, Dissolved by ICP	2.64	mg/L	0.014	
Lead, Dissolved by ICP	Less Than MDL	mg/L	0.020	
Lithium, Dissolved by ICP	0.03	mg/L	0.004	
Magnesium, Dissolved by ICP	12.87	mg/L	0.005	
Manganese, Dissolved by ICP	0.073	mg/L	0.001	
Nickel, Dissolved by ICP	Less Than MDL	mg/L	0.005	
Phosphorus, Dissolved by ICP	0.04	mg/L	0.015	
Potassium, Dissolved by ICP	1.21	mg/L	0.214	
Selenium, Dissolved by ICP	Less Than MDL	mg/L	0.016	
Silicon, Dissolved by ICP	4.79	mg/L	0.041	
Silver, Dissolved by ICP	Less Than MDL	mg/L	0.017	
Sodium, Dissolved by ICP	7.92	mg/L	0.072	
Strontium, Dissolved by ICP	0.06	mg/L	0.039	



Sulfur, Dissolved by ICP	4.12	mg/L	0.016
Thallium, Dissolved by ICP	Less Than MDL	mg/L	0.051
Tin, Dissolved by ICP	Less Than MDL	mg/L	0.138
Vanadium, Dissolved by ICP	Less Than MDL	mg/L	0.019
Zinc, Dissolved by ICP	0.03	mg/L	0.003

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
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*Total Metals by ICAP*

Aluminum, Total by ICP	Less Than MDL	mg/L	0.05
Antimony, Total by ICP	Less Than MDL	mg/L	0.05
Arsenic, Total by ICP	Less Than MDL	mg/L	0.021
Barium, Total by ICP	0.06	mg/L	0.004
Beryllium, Total by ICP	Less Than MDL	mg/L	0.001
Boron, Total by ICP	0.01	mg/L	0.006
Cadmium, Total by ICP	Less Than MDL	mg/L	0.008
Calcium, Total by ICP	34.2	mg/L	0.021
Chromium, Total by ICP	Less Than MDL	mg/L	0.015
Cobalt, Total by ICP	Less Than MDL	mg/L	0.004
Copper, Total by ICP	Less Than MDL	mg/L	0.009
Gold, Total by ICP	Less Than MDL	mg/L	0.022
Iron, Total by ICP	2.87	mg/L	0.014
Lead, Total by ICP	Less Than MDL	mg/L	0.02
Lithium, Total by ICP	0.03	mg/L	0.004
Magnesium, Total by ICP	12.99	mg/L	0.005
Manganese, Total by ICP	0.075	mg/L	0.001
Nickel, Total by ICP	Less Than MDL	mg/L	0.005
Phosphorus, Total by ICP	0.05	mg/L	0.015
Potassium, Total by ICP	1.18	mg/L	0.214
Selenium, Total by ICP	Less Than MDL	mg/L	0.016
Silicon, Total by ICP	4.81	mg/L	0.041
Silver, Total by ICP	Less Than MDL	mg/L	0.017
Sodium, Total by ICP	7.81	mg/L	0.072
Strontium, Total by ICP	0.06	mg/L	0.039
Sulfur, Total by ICP	4.15	mg/L	0.016
Thallium, Total by ICP	Less Than MDL	mg/L	0.051
Tin, Total by ICP	Less Than MDL	mg/L	0.138
Vanadium, Total by ICP	Less Than MDL	mg/L	0.019
Zinc, Total by ICP	0.03	mg/L	0.003

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
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Acidity	16	mg/L	8
Alkalinity	146	mg/L CaCO <sub>3</sub>	4
Bicarbonate	178	mg/L CaCO <sub>3</sub>	5
Bromide	Less Than MDL	mg/L	1.0
Charge-balance Calculation	1.53	%	
Chloride	6.3	mg/L	1.0



Conductivity	436	uU/cm	1
Fluoride	0.2	mg/L	0.01
Nitrate (NO3)	Less Than MDL	mg/L	0.02
Nitrate-N (NO3-N)	Less Than MDL	mg/L	0.004
Sulfate	11.2	mg/L	5.0
Total Dissolved Solids	146	mg/L	10
Total Hardness (by Titration)	140	mg/L CaCO3	1
Total Suspended Solids	5	mg/L	3

**Comments:**

Project ID: DCMWSLET  
 Project Account: 4-67103  
 Sample Field ID: FRAZ0503 (Frazier No. 1)  
 Sample Collector: DENNIS CUMBY  
 Collection Date: May 12, 2004  
 Collection Time: 2:00:00 PM  
 Lab Sample ID: GS18496  
 Submittal Date: May 13, 2004  
 Sample 3

The following analytical results have been obtained for the indicated sample which was submitted to the laboratory:

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>MDL</u>	<u>Qualifier</u>
<i>Dissolved Metals by ICAP</i>				
Aluminum, Dissolved by ICP	Less Than MDL	mg/L	0.050	
Antimony, Dissolved by ICP	Less Than MDL	mg/L	0.050	
Arsenic, Dissolved by ICP	Less Than MDL	mg/L	0.021	
Barium, Dissolved by ICP	0.06	mg/L	0.004	
Beryllium, Dissolved by ICP	Less Than MDL	mg/L	0.001	
Boron, Dissolved by ICP	0.006	mg/L	0.006	
Cadmium, Dissolved by ICP	Less Than MDL	mg/L	0.008	
Calcium, Dissolved by ICP	33.9	mg/L	0.021	
Chromium, Dissolved by ICP	Less Than MDL	mg/L	0.015	
Cobalt, Dissolved by ICP	Less Than MDL	mg/L	0.004	
Copper, Dissolved by ICP	Less Than MDL	mg/L	0.009	
Gold, Dissolved by ICP	Less Than MDL	mg/L	0.022	
Iron, Dissolved by ICP	2.81	mg/L	0.014	
Lead, Dissolved by ICP	Less Than MDL	mg/L	0.020	
Lithium, Dissolved by ICP	0.03	mg/L	0.004	
Magnesium, Dissolved by ICP	12.53	mg/L	0.005	
Manganese, Dissolved by ICP	0.078	mg/L	0.001	
Nickel, Dissolved by ICP	Less Than MDL	mg/L	0.005	
Phosphorus, Dissolved by ICP	0.04	mg/L	0.015	
Potassium, Dissolved by ICP	1.06	mg/L	0.214	
Selenium, Dissolved by ICP	Less Than MDL	mg/L	0.016	
Silicon, Dissolved by ICP	4.75	mg/L	0.041	
Silver, Dissolved by ICP	Less Than MDL	mg/L	0.017	

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ed by ICP	8.42	mg/L	0.072
ved by ICP	0.07	mg/L	0.039
by ICP	4.01	mg/L	0.016
ed by ICP	Less Than MDL	mg/L	0.051
ICP	Less Than MDL	mg/L	0.138
ved by ICP	Less Than MDL	mg/L	0.019
r ICP	0.02	mg/L	0.003

**Result                      Unit                      MDL                      Qualifier**

*Metals by ICAP*

by ICP	Less Than MDL	mg/L	0.05
r ICP	Less Than MDL	mg/L	0.05
CP	Less Than MDL	mg/L	0.021
CP	0.06	mg/L	0.004
r ICP	Less Than MDL	mg/L	0.001
P	0.02	mg/L	0.006
r ICP	Less Than MDL	mg/L	0.008
ICP	34.7	mg/L	0.021
by ICP	Less Than MDL	mg/L	0.015
:P	Less Than MDL	mg/L	0.004
CP	Less Than MDL	mg/L	0.009
	Less Than MDL	mg/L	0.022
	2.93	mg/L	0.014
	Less Than MDL	mg/L	0.02
CP	0.03	mg/L	0.004
by ICP	12.63	mg/L	0.005
by ICP	0.08	mg/L	0.001
α	Less Than MDL	mg/L	0.005
by ICP	0.05	mg/L	0.015
by ICP	1.20	mg/L	0.214
ICP	Less Than MDL	mg/L	0.016
P	4.88	mg/L	0.041
'	Less Than MDL	mg/L	0.017
CP	8.63	mg/L	0.072
ICP	0.07	mg/L	0.039
'	4.15	mg/L	0.016
CP	Less Than MDL	mg/L	0.051
	Less Than MDL	mg/L	0.138
r ICP	Less Than MDL	mg/L	0.019
	0.02	mg/L	0.003

	<b>Result</b>	<b>Unit</b>	<b>MDL</b>	<b>Qualifier</b>
	41	mg/L	8	
	141	mg/L CaCO3	4	
	172	mg/L CaCO3	5	
	Less Than MDL	mg/L	1.0	



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University of Kentucky  
Lexington, KY 40506-0107

If there are questions regarding this data, please contact.

Henry Francis

A handwritten signature in black ink, appearing to read 'Henry Francis', written over a light blue horizontal line.

Laboratory Services Manager

Phone: 859-257-5500

FAX: 859-257-1147

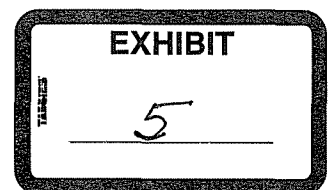
e-mail: [Francis@kgs.mm.uky.edu](mailto:Francis@kgs.mm.uky.edu)





The Salyersville Emergency Water Supply Improvement Project is organized as the following worksheets:

<b>Work Sheet ID Number</b>	<b>Exhibit ID Number</b>	<b>Alternate Title</b>
1		Summary of Alternates
2	A	Pro / Con Analysis
3	B	Summary of Alternate Costs
4	C	Finished Water Augmentation -- Emergency Interconnect -- Route 40
5	D	Finished Water Augmentation -- Long Term Interconnect -- Route 40
6	E	Raw Water Supply -- Mine Fork Quarry Pump & Line
7	F	Raw Water Supply -- Well Field Improvements
8	G	Raw Water Supply -- Licking River Dredge/Hook/Snag Project



**EXHIBIT B**  
**PRO CON ANALYSIS OF ALTERNATES**  
**SALYERSVILLE EMERGENCY WATER SUPPLY PROJECT**

10/9/2008

**Summary** - A long term tie on Rt 40 leaves the community at the mercy of Paintsville Utilities with regard to cost of water.

If the Quarry at Mine Fork could be acquired (and proven with regards to quantity/quality) it could provide the community with a reliable, long term water supply. However, this is the most expensive of all of the alternates considered.

Expanding the well field may be a compromise between these two alternates. However, well fields are not certain.

When subjected to long term pumping -- the waters of a well field may change dramatically in quality!

PRO	CON
<b>Finished Water - Emergency Tie on Route 40 (Exhibit C)</b>	
1. Can be achieved quickly	1. Incomplete solution. Will only provide about 19% of daily need
<b>Finished Water - Long Term Tie on Route 40 (Exhibit D)</b>	
1. Could be a complete backup if Paintsville strengthened their grid!	1. Paintsville wants too much for wholesale water supply.  2. Until Paintsville has new plant on line -- Paintsville really does not have the water to sell.
<b>Raw Water Supply -- Mine Fork Quarry Pump &amp; Line (Exhibit E)</b>	
1. Could potentially provide all of the raw water needs for the foreseeable future -- even in drought.	1. Need a study to determine yield (drawdown vs. pump rate).  2. Need a study to assess quality of water (could be degraded by old equipment submerged in mine)  3. Site is privately held! May not be able to acquire site.  4. Capital cost - very expensive
<b>Raw Water Supply -- Well Field Improvements (Exhibit F)</b>	
1. Could potentially meet the raw water needs of the community in drought  2. Reasonable cost to supply	1. No guarantee that wells will yield desired flow  2. No guarantee that well water will be suitable for treatment. Possible high sodium.  3. Long term pumping of well field may exhaust ground water supply and/or pull low quality ground waters into aquifer.  4. Maintenance costs for maintaining equipment used infrequently (only in time of drought).
<b>Raw Water Supply -- Licking River Dredge/Hook/Snag Project (Exhibit G)</b>	
	1. Recurring expense. Rivers quickly reclaim 'improved' channels  2. Will improve storage but very difficult to quantify improved yield.

**EXHIBIT B**  
**SUMMARY OF COSTS BY ALTERNATE**  
**SALYERSVILLE EMERGENCY WATER SUPPLY PROJECT**

10/9/2008

ITEM NO.	ITEM DESCRIPTION	AMOUNT
1	<b>ALTERNATE 1</b>	
	Finished Water Augmentation -- Emergency Interconnect -- Route 40	\$ 264,762.15
2	<b>ALTERNATE 2</b>	
	Finished Water Augmentation -- Long Term Interconnect -- Route 40	\$ 917,067.99
3	<b>ALTERNATE 3</b>	
	Raw Water Supply -- Mine Fork Quarry Pump & Line	\$ 3,492,980.96
4	<b>ALTERNATE 4</b>	
	Raw Water Supply -- Well Field Improvements	\$ 884,183.98
5	<b>ALTERNATE 5</b>	
	Raw Water Supply -- Licking River Dredge/Hook/Snag Project	\$ 52,500.00

**EXHIBIT 'C'**  
**ENGINEERS OPINION OF PROBABLE PROJECT COST**  
**FINISHED WATER AUGMENTATION**  
**EMERGENCY INTERCONNECT -- ROUTE 40**  
**10/9/2008**

Item	Item	Quantity	Unit	Unit Price	Amount
<b>A</b>	<b>Construction Costs</b>				
1	Mobilization/Demobilization (Note 1)	1	LS	\$ 5,000.00	\$ 5,000.00
2	Construction Staking (Structures Only)	1	LS	\$ 2,000.00	\$ 2,000.00
3	Seeding and Cleanup (Note 2)	1	LS	\$ 1,250.00	\$ 1,250.00
4	Connect to Existing Water Line	1	EA	\$ 2,750.00	\$ 2,750.00
5	Master Meter Station	1	EA	\$ 35,000.00	\$ 35,000.00
6	200 gpm Water Booster Pump Station	1	EA	\$ 80,000.00	\$ 80,000.00
7	Solenoid Valve at State Road Booster Pump	1	EA	\$ 35,000.00	\$ 35,000.00
8	Fire Hydrant/Blow off	1	EA	\$ 3,000.00	\$ 3,000.00
9	Telemetry RTU for new booster pump and master meter	1	EA	\$ 17,500.00	\$ 17,500.00
	<b>SUBTOTAL FOR CONSTRUCTION</b>				<b>\$ 181,500.00</b>
	Contingency @ 10%				\$ 18,150.00
	Estimated Construction Cost				<b>\$ 199,650.00</b>
B	Basic Engineering @	12.20%	Percent		\$ 24,357.30
C	Additional Engineering				NONE
D	Resident Inspection @	10.40%	Percent		\$ 20,763.60
E	Other				
	BSADD Grants Assist @ 2.50%				\$ 4,991.25
	Right of Way/Easements/Etc.				\$ 10,000.00
	Miscellaneous				<u>\$ 5,000.00</u>
	<b>TOTAL PROJECT COST</b>				<b>\$ 264,762.15</b>

Note 1: Mobilization/Demobilization estimated 3.0%

Note 2: Seeding and Cleanup estimated at \$0.25 per linear foot of line to be constructed.

**EXHIBIT 'D'**  
**ENGINEERS OPINION OF PROBABLE PROJECT COST**  
**FINISHED WATER AUGMENTATION**  
**LONG TERM INTERCONNECT -- ROUTE 40**  
**WX21153516**  
**10/9/2008**

Item	Item	Quantity	Unit	Unit Price	Amount
<b>A</b>	<b>Construction Costs</b>				
1	Mobilization/Demobilization (Note 1)	1	LS	\$ 20,000.00	\$ 20,000.00
2	Construction Staking (Structures Only)	1	LS	\$ 3,750.00	\$ 3,750.00
3	Seeding and Cleanup (Note 2)	1	LS	\$ 7,500.00	\$ 7,500.00
4	Special Pipe Bedding	200	Ton	\$ 20.00	\$ 4,000.00
5	Connect to Existing Water Line	4	EA	\$ 2,750.00	\$ 11,000.00
6	8" PVC, SDR 17 Water Line	13500	EA	\$ 25.00	\$ 337,500.00
7	8" Resilient Wedge Gate Valve, MJ	16	EA	\$ 1,700.00	\$ 27,200.00
8	Master Meter Station	1	EA	\$ 35,000.00	\$ 35,000.00
9	550 gpm Water Booster Pump Station	1	EA	\$ 80,000.00	\$ 80,000.00
10	Upgrade Existing Paintsville Water Booster Pump Station	1	EA	\$ 45,000.00	\$ 45,000.00
11	Solenoid Valve at State Road Booster Pump	1	EA	\$ 35,000.00	\$ 35,000.00
12	Air Release	4	EA	\$ 1,500.00	\$ 6,000.00
13	Fire Hydrant/Blow off	6	EA	\$ 3,000.00	\$ 18,000.00
14	Telemetry RTU for new booster pump and master meter	2	EA	\$ 17,500.00	\$ 35,000.00
	<b>SUBTOTAL FOR CONSTRUCTION</b>				<b>\$ 664,950.00</b>
	Contingency @ 10%				<u>\$ 66,495.00</u>
	Estimated Construction Cost				<b>\$ 731,445.00</b>
<b>B</b>	Basic Engineering @	9.40%	Percent		\$ 68,755.83
<b>C</b>	Additional Engineering				
	Aerial Mapping & Ground Control				\$ 10,000.00
	Environmental				<u>\$ 7,500.00</u>
	<b>Subtotal Additional Engineering</b>				<b>\$ 17,500.00</b>
<b>D</b>	Resident Inspection @	6.30%	Percent		\$ 46,081.04
<b>E</b>	Other				
	BSADD Grants Assist @ 2.50%				\$ 18,286.13
	Right of Way/Easements/Etc.				\$ 10,000.00
	Bond Council, Legal, Interim Interest, etc.				<u>\$ 25,000.00</u>
	<b>TOTAL PROJECT COST</b>				<b>\$ 917,067.99</b>

Note 1: Mobilization/Demobilization estimated 3.0%

Note 2: Seeding and Cleanup estimated at \$0.25 per linear foot of line to be constructed.

**EXHIBIT 'E'**  
**ENGINEERS OPINION OF PROBABLE PROJECT COST**  
**RAW WATER SUPPLY**  
**MINE FORK QUARRY PUMP & LINE**  
**10/9/2008**

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1	<b>GENERAL</b>				
1a	Mobilization/Demobilization	LS	1	\$ 60,000.00	\$ 60,000.00
1b	Seeding	LS	1	\$ 14,500.00	\$ 14,500.00
2	<b>CONNECTIONS</b>				
2a	Connect to Rapid Mix Basin	LS	1	\$ 2,000.00	\$ 2,000.00
3	<b>WATER LINE</b>				
3a	10" PVC Raw Water Line, SDR 17	LF	59,000	\$ 25.00	\$ 1,475,000.00
4	<b>VALVES &amp; METERS</b>				
4a	10" Resilient Wedge Gate Valve MJ, 150	EA	10	\$ 2,250.00	\$ 22,500.00
4b	8" Mag Meter in pit w isolation valves	EA	1	\$ 12,500.00	\$ 12,500.00
5	<b>PUMP STATION</b>				
5a	1400 GPM duplex vertical turbine pump station, barge mounted in quarry pit, complete, in service	LS	1	\$ 200,000.00	\$ 200,000.00
6	<b>ENCASEMENTS</b>				
6a	Bore and Encase for 10" Water Line	LF	300	\$ 175.00	\$ 52,500.00
7	<b>HYDRANTS</b>				
7a	Hydrants for blow offs	EA	4	\$ 4,000.00	\$ 16,000.00
8	<b>TANK &amp; ACCESSORIES</b>				
8a	500,000 gallon AWWA D103 factory glass coated steel, bolted water storage tank w concrete foundation & aluminium dome roof	LS	1	\$ 590,000.00	\$ 590,000.00
8b	Excavation of tank site & access road	LS	1	\$ 50,000.00	\$ 50,000.00
8c	PreCast Concrete Valve pit w 10" plumbing	LS	1	\$ 40,000.00	\$ 40,000.00
8d	Telemetry RTU compatible w City system	LS	1	\$ 15,000.00	\$ 15,000.00
8e	Chain Link Security Fence	LS	1	\$ 8,000.00	\$ 8,000.00
<b>SUBTOTAL FOR CONSTRUCTION</b>					<b>\$ 2,558,000.00</b>
Contingency @ 10%					\$ 255,800.00
Estimated Construction Cost					<b>\$ 2,813,800.00</b>
A	Preliminary Study & Report (Pump Test & Quality Tests of Quarry)				\$ 15,000.00
B	Basic Engineering @	7.30% Percent			\$ 205,407.40
C	Additional Engineering				
	Aerial Mapping & Ground Control				\$ 15,000.00
	Environmental				\$ 7,500.00
<b>Subtotal Additional Engineering</b>					<b>\$ 22,500.00</b>
D	Resident Inspection @	4.12% Percent			\$ 115,928.56
E	Other				
	BSADD Grants Assist @ 2.50%				\$ 70,345.00
	Right of Way --- Purchase Quarry				\$ 200,000.00
	Bond Council, Legal, Interim Interest, etc.				\$ 50,000.00
<b>TOTAL PROJECT COST</b>					<b>\$ 3,492,980.96</b>

Note 1: Mobilization/Demobilization estimated 3.0%

Note 2: Seeding and Cleanup estimated at \$0.25 per linear foot of line to be constructed

**EXHIBIT E**  
**ENGINEER'S OPINION OF PROBABLE PROJECT COST**  
**RAW WATER SUPPLY**  
**WELL FIELD IMPROVEMENTS & RAW WATER LINE**  
10/9/2008

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Summary of Alternates Pro / Con Analysis
<b>1</b>	<b>GENERAL</b>				
a	Mobilization (3%)	LS	1	\$ 22,000.00	\$ 22,000.00
<b>2</b>	<b>WELL #1 (NOTE 1)</b>				
a	Pilot Well to Prove Aquifer	LS	1	\$ 15,000.00	\$ 15,000.00
b	Production Well With Pump, Complete and In-Service	LS	1	\$ 200,000.00	\$ 200,000.00
c	Additional Well Depth	VF		\$ 50.00	\$ -
d	6-inch, PVC SDR 11, Dishcharge Line Connecting Well & Existing Raw Water Line	LF	525	\$ 17.00	\$ 8,925.00
<b>3</b>	<b>WELL #2 (NOTE 1)</b>				
a	Pilot Well to Prove Aquifer	LS	1	\$ 15,000.00	\$ 15,000.00
b	Basic Well With Pump, Completed, Tested and In-Service	LS	1	\$ 200,000.00	\$ 200,000.00
c	Additional Well Depth	VF		\$ 50.00	\$ -
<b>4</b>	<b>460 RAW WATER LINE</b>				
a	6" Raw Water Line, PVC SDR 17	LF	5,400	\$ 17.00	\$ 91,800.00
b	8" Raw Water Line, PVC SDR 18	LF	3,340	\$ 21.00	\$ 70,140.00
c	6" Resilient Wedge Gate Valve MJ, 250	LF	4	\$ 1,500.00	\$ 6,000.00
d	8" Resilient Wedge Gate Valve MJ, 250	LF	3	\$ 1,750.00	\$ 5,250.00
e	Bore and Encase for 6" Water Line	LF	50	\$ 200.00	\$ 10,000.00
e	Bore and Encase for 8" Water Line	LF	50	\$ 225.00	\$ 11,250.00
f	Connect to Existing Wet Well	LS	1	\$ 2,500.00	\$ 2,500.00
g	Seeding and Cleanup	LS	1	\$ 3,000.00	\$ 3,000.00
	<b>SUBTOTAL CONSTRUCTION COSTS</b>				\$ 660,865.00
h	Construction Contingencies	LS	10.00%		\$ 66,086.50
	<b>PROBABLE CONSTRUCTION COST</b>				\$ 726,951.50
	Right of Way/Easements	LS	1	\$ 5,000.00	\$ 5,000.00
	Legal/Permits/Interim Interest/Notices/Etc.	LS	1	\$ 20,000.00	\$ 20,000.00
	BSADD Admin Fees	LS	2.50%	\$ 18,173.79	\$ 18,173.79
	Basic Engineering		9.39%	\$ 68,260.75	\$ 68,260.75
	Resident Inspection	LS	6.30%		\$ 45,797.94
	<b>PROBABLE PROJECT COST</b>				\$ 884,183.98

Notes:

1 Based on Production Well 400 feet in depth. Full length cased!





EMERGENCY WATER SUPPLY AGREEMENT

THIS agreement made and entered into this the 13 day of Oct., 2008 by and between the Paintsville Utilities Commission ("PUC"), whose address is 137 Main Street, P.O. Box 630, Paintsville, Kentucky, 41240 and the City of Salyersville, by and through its Mayor, City Hall, Salyersville, Kentucky ("Salyersville").

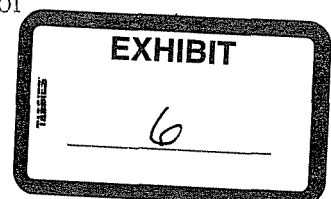
WITNESSETH:

WHEREAS, Salyersville is in need of an emergency water supply and:

WHEREAS, PUC has water lines in the vicinity of Salyersville and is willing to provide Salyersville with an emergency water supply subject to the provisions below;

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the parties hereby agree as follows:

1. Upon request of Salyersville, PUC will provide water on an emergency basis to Salyersville at a location to be designated by PUC.
2. PUC shall have exclusive authority and discretion to determine whether to provide emergency water to Salyersville and shall have the exclusive authority to determine the amounts of emergency water to provide Salyersville. Without limiting the foregoing, PUC agrees to not unreasonably withhold the provision of emergency water to Salyersville and will do so when the same could have an impact on PUC's water system.
3. Salyersville shall be solely responsible for the financing, procurement, and installation of all necessary water lines from its existing system to the Magoffin/Johnson County line where Salyersville shall make connection with the PUC water system in accordance with the PUC's system specifications. It shall also be the responsibility of



Salyersville to purchase and install a water meter at a location to be determined by PUC to measure the water flow to Salyersville. Upon installation of said water lines, Salyersville agrees to convey ownership of said lines to PUC, and PUC shall adopt said lines into its existing system.

4. It shall be the sole responsibility of Salyersville to obtain any and all necessary easements, right-of-ways, and permits to effectuate this agreement. Upon procurement of the same, Salyersville agrees to assign or transfer said easements, right-of-ways and permits to PUC and have the transfer instrument along with the easements and other documentation placed of record in the Magoffin County Clerk's Office.

5. When emergency water is provided to Salyersville, Salyersville agrees to pay the cost for said water, which will be billed at PUC's standard billing rate and on a monthly basis.

6. As security for payment of said emergency water, PUC requires of Salyersville and Salyersville agrees to procure a bond in the amount of \$10,000.00 to cover the cost of the emergency water supply to Salyersville. Upon procurement of said bond, Salyersville agrees to transmit a copy of the same to PUC, which is a condition precedent to PUC providing emergency water.

7. The term of this Agreement shall be for a period of one (1) year and shall automatically renew each year thereafter for a successive one-year term. Either party may cancel this Agreement, with or without cause, by providing written notice not less than thirty (30) days prior to the anniversary date of this Agreement.

8. Salyersville shall indemnify and hold harmless PUC for any and all claims caused, in whole or in part, by Salyersville's negligence. It is further agreed and

and hold harmless PUC for any claims or causes of action asserted against PUC for providing said emergency water, including, but not limited to, for any claim or cause of action relating to the procurement of any and all easements, right-of-ways or other legal documents; the financing or installation of the aforementioned water lines; and any and all other claims or causes of action arising out of this agreement.

9. If any provision of this Agreement is determined to be unenforceable that determination shall not affect the enforceability of any other provisions of this Agreement.

10. This Agreement contains the entire agreement between the parties, and no statements, promises or inducements made by either party or agent of either party that are not contracted in this written contract shall be valid or binding; this Agreement may not be enlarged, modified or altered except in writing signed by the parties and indorsed on this Agreement.

11. It is mutually understood and agreed that this Agreement shall be governed by the laws of the Commonwealth of Kentucky, both as to interpretation and performance.

12. The Parties agree this Agreement is the result of mutual changes and the Rule of Construction against the drafter shall not apply.

In witness whereof, the parties hereto have executed this agreement the day and year first above written.

10-13-08

See Attached Rate  
Sheet. S.H.

PAINTSVILLE UTILITIES COMMISSION

BY: Jim Colvin  
JIM COLVIN  
CHAIRMAN

CITY OF SALYERSVILLE

BY: Sandy Howard  
MAYOR  
CITY OF SALYERSVILLE

COMMONWEALTH OF KENTUCKY  
COUNTY OF Floyd

I, Tammy Coleman, Notary Public for the County aforesaid, do certify that the foregoing Emergency Water Supply Agreement was this day produced to me in said County and duly acknowledged before me by Jim Colvin, as Chairman of the Paintsville Utilities Commission, on behalf of the Paintsville Utilities Commission, on this the 11<sup>th</sup> day of September, 2007.

Tammy Coleman  
NOTARY PUBLIC

MY COMMISSION EXPIRES: 3-5-2011

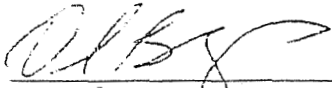
COMMONWEALTH OF KENTUCKY  
COUNTY OF Maggoffin

I, Sandy S. Carpenter, Notary Public for the County aforesaid, do certify that the foregoing Emergency Water Supply Agreement was this day produced to me in said County and duly acknowledged before me by the Mayor of the City of Salyersville, on behalf of the City of Salyersville, on this the \_\_\_\_\_ day of \_\_\_\_\_, 2007.

Sandy S. Carpenter  
NOTARY PUBLIC

MY COMMISSION EXPIRES: May 27, 2012

THIS INSTRUMENT PREPARED BY:



---

A. David Blankenship  
Blankenship Law Office, PLLC  
328 E. Court Street  
Prestonsburg, KY 41653  
Telephone: (606) 886-1343  
Telecopier: (606) 886-1349

Rate Sheet

PAINTSVILLE UTILITIES  
CURRENT RATE STRUCTURE

10-13-08

S.H.

RATE INCREASE BASED ON  
ADJUSTMENT OF EXCESSIVE  
12 WEEK AVERAGE  
JOURNAL PRINTED AS OF  
01-17-2008 PER ORDINANCE  
2.1 GPI

**GAS RATES** Ordinance No. 2004-010  
Effective Date 01-15-08  
02-15-08 Meter Reading

	Current Inside Rate (per thousand Cubic Feet)	Current Outside Rate (per thousand Cubic Feet)
First One -Thousand Cubic Feet	\$18.74	\$23.43
Next Two -Thousand Cubic Feet	\$18.02	\$22.52
Over Three -Thousand Cubic Feet	\$17.47	\$21.77

**WASTEWATER (Sewer)  
RATES** Ordinance No. 2004-009

	Current Inside Rate (per thousand gal)	Current Outside Rate (per thousand gal.)
First 0 - 2,000 Gallons	\$15.37	\$15.37
Next 3,000 Gallons	\$7.35	\$7.35
Next 5,000 Gallons	\$7.35	\$7.35
Next 15,000 Gallons	\$7.29	\$7.29
Next 25,000 Gallons	\$7.29	\$7.29
Next 50,000 Gallons	\$7.29	\$7.29
Over 100,000 Gallons	\$6.90	\$6.90

**WATER RATES** Ordinance No. 2004-008

	Current Inside Rate (per thousand gal)	Current Outside Rate (per thousand gal)
First 0 - 2,000 Gallons	\$7.68	\$11.21
Next 3,000 Gallons	\$3.76	\$4.71
Next 5,000 Gallons	\$3.76	\$4.71
Next 15,000 Gallons	\$3.59	\$4.59
Next 25,000 Gallons	\$3.42	\$4.04
Next 50,000 Gallons	\$3.42	\$4.04
Over 100,000 Gallons	\$3.31	\$3.71



FINANCIAL GUARANTEE BOND

Bond # 3634231

Know all by these Presents:

That we, City of Salyersville/Salyersville Waterworks, P.O. box 640, Salyersville, KY 41465 as Principal, and Great American Insurance Company, with principal office at 4965 U.S. Highway 42, Suite 1550, Louisville, KY 40202, as Surety are held and firmly bound unto Paintsville Utility Commission, 137 Main Street, Paintsville, KY 41240 in the sum of Ten Thousand dollars and no/100-----\$10,000, for the payment of which sum, well and truly to be made, we bind ourselves, our personal representatives, successors and assigns, jointly and firmly by these presents.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH:

That Whereas, the Principal has requested that Paintsville Utility Commission has agreed to furnish Emergency Water Supply to the Principal as the terms and conditions of the Agreement between them dated October 13, 2008.

Whereas, Paintsville Water Commission is willing to accept this Bond in lieu of requiring a cash deposit to be made by the Principal to secure payment for the service to be furnished.

Now Therefore, if the Principal shall pay the full amount of all sums which become due for the said service to be furnished the Principal and/or all monies to become due under the terms of the said Agreement, in the manner at the time provided, then this obligation shall be void, otherwise to be and to remain in full force and effect.

Provided However, that this Bond is written upon the following expressed condition:

- (1) That in no event shall the liability of the surety hereunder be cumulative from year to year, nor shall the surety in any event be liable for more than the total amount of Ten Thousand Dollars and no/100 (\$10,000.00).
- (2) The bond is continuous, however the surety shall have the right to cancel this bond at any time by a written notice stating when the cancellation shall take effect and served upon or sent by certified mail to the Owner at least thirty (30) days prior to the effective date of the cancellation; provided such cancellation shall not release said surety from any liability existing hereunder at the time of effective date of the said cancellation.

Signed and Sealed this 29<sup>th</sup> day of October, 2008.

City of Salyersville

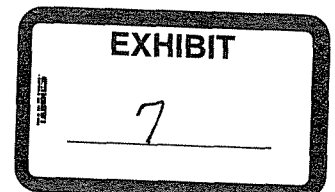
Karen Howard  
Witness

[Signature]

Great American Insurance Company

[Signature]  
Witness

[Signature]  
Pamela K. Marshall Attorney In Fact





**GREAT AMERICAN INSURANCE COMPANY®**

**Administrative Office: 580 WALNUT STREET • CINCINNATI, OHIO 45202 • 513-369-5000 • FAX 513-723-2740**

The number of persons authorized by  
this power of attorney is not more than Four

No. 0 **18434**

**POWER OF ATTORNEY**

**KNOW ALL MEN BY THESE PRESENTS:** That the GREAT AMERICAN INSURANCE COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Ohio, does hereby nominate, constitute and appoint the person or persons named below its true and lawful attorney-in-fact, for it and in its name, place and stead to execute in behalf of the said Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; provided that the liability of the said Company on any such bond, undertaking or contract of suretyship executed under this authority shall not exceed the limit stated below.

Name	Address	Limit of Power
Charles E. Williams	all of	all
Pamela K. Marshall	Louisville, Kentucky	Unlimited
Diane Riggs		
Mark R. McDaniel		

This Power of Attorney revokes all previous powers issued in behalf of the attorney(s)-in-fact named above.

IN WITNESS WHEREOF the GREAT AMERICAN INSURANCE COMPANY has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 9th day of May, 2007  
Attest GREAT AMERICAN INSURANCE COMPANY

STATE OF OHIO, COUNTY OF HAMILTON - ss:

DAVID C. KITCHIN (513-412-4602)

On this 9th day of May, 2007, before me personally appeared DAVID C. KITCHIN, to me known, being duly sworn, deposes and says that he resides in Cincinnati, Ohio, that he is the Divisional Senior Vice President of the Bond Division of Great American Insurance Company, the Company described in and which executed the above instrument; that he knows the seal of the said Company; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by authority of his office under the By-Laws of said Company, and that he signed his name thereto by like authority.

This Power of Attorney is granted by authority of the following resolutions adopted by the Board of Directors of Great American Insurance Company by unanimous written consent dated March 1, 1993.

*RESOLVED: That the Division President, the several Division Vice Presidents and Assistant Vice Presidents, or any one of them, be and hereby is authorized, from time to time, to appoint one or more Attorneys-in-Fact to execute on behalf of the Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; to prescribe their respective duties and the respective limits of their authority; and to revoke any such appointment at any time.*

*RESOLVED FURTHER: That the Company seal and the signature of any of the aforesaid officers and any Secretary or Assistant Secretary of the Company may be affixed by facsimile to any power of attorney or certificate of either given for the execution of any bond, undertaking, contract or suretyship, or other written obligation in the nature thereof, such signature and seal when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.*

**CERTIFICATION**

I, RONALD C. HAYES, Assistant Secretary of Great American Insurance Company, do hereby certify that the foregoing Power of Attorney and the Resolutions of the Board of Directors of March 1, 1993 have not been revoked and are now in full force and effect.

Signed and sealed this 29th day of October, 2008



## Line Break

4-2-03

2" Line Behind New Courthouse  
(6 Meters)

Broken @ 1500 P.M.

Repaired @ 1545 P.M.

Notified D.O.W. @1530 (Damon White)

N.O.C.-114787

Boil Water Advisory Hand Delivered @1550

4-3-03

Bact. Samples Collected:

Upstream-1.2 @ 0955

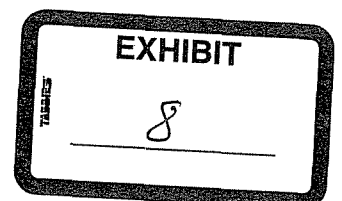
Downstream- 1.0 @ 1005

4-4-03

Bact. Samples Negative

Notified D.O.W.

Boil Water Advisory lifted @ 1500



## **Line Break**

01-19-03

1<sup>st</sup>=6" main @ Dixie and 460 Intersection

Broken @ 1000 P.M.

Repaired @ 1600 P.M.

Notified After Hours D.O.W. @1600

2<sup>nd</sup>= 4" main in Dixie

Broken @ 1600

Repaired @ 1730

N.O.C.-200030195

Boil Water Advisory Issued @ 1600

Hand delivered to 1<sup>st</sup> Break customers (5)

01-20-03

Bact. Samples Collected:

1<sup>st</sup>=Upstream-1.4 @ 0951

1<sup>st</sup>=Downstream- 1.3 @ 0937

2<sup>nd</sup>= Upstream-1.0 @ 1000

2<sup>nd</sup>= Downstream- 0.9 @ 1008

1-21-03

Bact. Samples Negative

Notified D.O.W. : Damon White @ 0920

Boil Water Advisory lifted @ 0930

## **Line Break**

01-17-03

6" main @ Dixie

Broken @ 1300 P.M.

Repaired @ 1500 P.M.

Notified After Hours D.O.W. @1500

N.O.C.-111758

Boil Water Advisory Issued @ 1500

Bact. Samples Collected:

Upstream-1.0 @ 1515

Downstream- 1.1 @ 1530

1-19-03

Bact. Samples Negative

Notified After Hours D.O.W. : Gene Blair

Boil Water Advisory lifted @ 1030

## **Line Break**

4-8-03

8" Line @ Falcon  
(100 Meters)

Broken @ 0230

Repaired @ 1300

Notified D.O.W. @0800 (Damon White)

N.O.C.-114999

Boil Water Advisory Issued @ 0830

4-9-03

Bact. Samples Collected:

Upstream-1.0 @ 0842

Downstream- 0.9 @ 0854

4-10-03

Bact. Samples Negative

Notified D.O.W.

Boil Water Advisory lifted @ 0900

## **Line Break**

9-25-03

6" Line @ Burning Fork  
(70 Meters)

Broken @ 0915

Notified D.O.W. @0925

N.O.C.- 120008

Boil Water Advisory Issued @ 0930

Repaired @1145

Bact. Samples Collected:

Downstream-1 @ 1315

Downstream-2 @ 1325

Downstream-3 @ 1330

9-26-03

Bact. Samples Negative

Notified D.O.W.

Boil Water Advisory lifted @ 1315

## **Line Break**

8-28-03

6" Line @ Burning Fork  
(70 Meters)

Broken @ 1030

Repaired @ 1400

Notified D.O.W. @1110 (Damon White)

N.O.C.- 119282

Boil Water Advisory Issued @ 1130

Bact. Samples Collected:

Downstream- @ 1452

Downstream- @ 1501

Downstream- @1508

8-29-03

Bact. Samples Negative

Notified D.O.W.

Boil Water Advisory lifted @ 1400



## **Line Break**

4-29-03

2" Line @ Horsepen  
(20 Meters)

Broken @ 1400

Repaired @ 1500

Notified D.O.W. @1400 (Damon White)

N.O.C.- 115761

Boil Water Advisory Issued @ 1430

4-30-03

Bact. Samples Collected:

Upstream-1.2 @ 0900

Downstream- 1.1 @ 0911

5-01-03

Bact. Samples Negative

Notified D.O.W.

Boil Water Advisory lifted @ 0910

## **Line Break (Tie-in)**

3-03-04

6" Line @ 114 and Rt. 7

Broken @ 1230

1 Home Effected

Boil Water Advisory Issued @ 1300

Repaired @ 1700

3-04-04

Bact. Samples Collected:

Downstream-001- 1.5 @ 0845

3-05-04

Bact. Sample Negative

. Boil Water Advisory lifted @ 0930

## **Line Break (Tie-in)**

2-17-04

6" Line @ 114 and Mtn. Pkwy.

Broken @ 1230

Notified D.O.W. @1240

N.O.C.-177486

Boil Water Advisory Issued @ 1240

Repaired @ 2300

2-18-04

Bact. Samples Collected:

Downstream-001- 1.2 @ 0930

Downstream-002- 1.0 @ 0944

Downstream-003- 1.3 @ 1000

2-19-04

Bact. Samples Negative

Notified D.O.W.

Boil Water Advisory lifted @ 0922

## **Line Break**

11-21-03

6" Line @ Burning Fork  
(70 Meters)

Broken @ 0945

Notified D.O.W. @1005

N.O.C.- 121453

Boil Water Advisory Issued @ 1020

Repaired @1215

Bact. Samples Collected:

Downstream-001 1.8 @ 1253

Downstream-002 1.6 @ 1302

Downstream-003 1.8 @ 1309

11-22-03

Bact. Samples Negative

Notified D.O.W. After Hrs.

Boil Water Advisory lifted @ 1315

## **Line Break (Tie-in)**

3-25-04

6" Line @ 114 and Rt. 7

Off @ 0730

40 Homes Effected

Talked to Damon White- Hazard DOW@ 0840

N.O.C. 178886

Boil Water Advisory Issued @ 0845

Repaired @ 0945

3-25-04

Bact. Samples Collected:

Downstream-001- 1.6 @ 1340

Downstream-002- 1.4 @ 1335

Downstream-003- 1.7 @ 1324

3-26-04

Bact. Sample Negative

Talked with David Leo w/DOW

. Boil Water Advisory lifted @ 1330

## **Line Break (Tie-in)**

04-08-04

6" Line @ 114

Off @ 1400

12-14 Homes Effectuated

Talked to Steve Hall - Hazard DOW @ 1550

N.O.C. 179381

Boil Water Advisory Issued @ 1600

Repaired @ 1600

Bact. Samples Collected:

Upstream-001- 1.1 @ 1650

Downstream-002- 1.2 @ 1701

Downstream-003- 1.4 @ 1710

4-10-04

Bact. Sample Negative

Talked with Joseph Schmidt w/DOW

. Boil Water Advisory lifted @ 2000

## **Line Break (Tie-in)**

1-22-04

6" Line @ Rt.7 &114

Broken @ 0915

Notified D.O.W. @1230

N.O.C.-

Boil Water Advisory Issued @ 1300

Repaired @1530

Bact. Samples Collected:

Downstream-001 1.7 @ 1615

Downstream-002 1.5 @ 1625

Downstream-003 1.6 @ 1633

Downstream-004 1.6 @ 1640

Downstream-005 1.6 @ 1630

Downstream-006 2.0 @ 1650

Downstream-007 1.6 @ 1645

1-24-04

Bact. Samples Negative

Notified D.O.W. After Hrs.(Gene Blair)

Boil Water Advisory lifted @ 1320

## **Line Break (Tie-in)**

04-20-04

6" Line @ 114

Off @ 0800

12-14 Homes Effected

Talked to Kelly Hurley - Hazard DOW@ 1030

N.O.C.- 179787

Boil Water Advisory Issued @ 1045

Repaired @ 1030

Bact. Samples Collected:

Upstream-001- 1.6 @ 1310

Downstream-002- 1.3 @ 1320

Downstream-003- 1.3 @ 1330

4-21-04

Bact. Sample Negative

Talked with Steve Hall- Hazard DOW

Boil Water Advisory lifted @ 1420



## **Line Break**

04-26-08

6" Line @ Route 40

100 to 150 Customers Effected

Broken @ 0530

Notified Damon White @ 0800

E.O.C.- 2277662

Boil Water Advisory Issued @ 0930

Repaired @1500

04-28-08

Bact. Samples Collected:

Downstream-001=157@ 0935

Downstream-002=1.53@ 0945

Downstream-003=1.48@0955

04-29-08

Bact. Samples Negative

Notified D.O.W.- Lee Pigman @ 1230

Boil Water Advisory lifted @ 1315

## **Line Break**

05-25-04

8" Line @ 114 and Rt. 7

Off @ 1330

40 Homes Effected

Talked to Damon White- Hazard DOW@

N.O.C.- 181057

Boil Water Advisory Issued @ 1430

Repaired @ 1445

Bact. Samples Collected:

Downstream-001- 1.4 @ 1540

Downstream-002- 1.4 @ 1545

Downstream-003- 1.3 @ 1553

05-26-04

Bact. Sample Negative

Talked with Damon White w/DOW

. Boil Water Advisory lifted @ 1445

## **Line Break**

06-07-05

2" Line at Coal Branch

Off @ 1300

40 Homes Effected

Talked to Roger Martin - Hazard DOW@ 1300

N.O.C.- 195512

Boil Water Advisory Issued @ 1315

Repaired @ 1500

06-08-05

Bact. Samples Collected:

Downstream-001- 1.01 @ 0835

Downstream-002- 1.11 @ 0847

Downstream-003- 1.17 @ 0900

06-09-05

Bact. Sample Negative

Talked with Damon White w/DOW

. Boil Water Advisory lifted @ 1200

## **Line Break**

06-08-04

8" Line @ 114 and Rt. 7

Off @ 1455

40 Homes Effected

Talked to Damon White- Hazard DOW@ 1503

N.O.C.- 182006

Boil Water Advisory Issued @ 1515

Repaired @ 1525

Bact. Samples Collected:

Downstream-001- 1.5 @ 1544

Downstream-002- 1.5 @ 1550

Downstream-003- 1.5 @ 1555

06-09-04

Bact. Sample Negative

Talked with Kelly Hurley w/DOW

. Boil Water Advisory lifted @ 1445

## **Line Break**

06-29-05

4" Line in Dixie ADD.

Off @ 1030

50 Homes Effected

Talked to After Hrs. DOW @ 1700

N.O.C.- 20051912

Boil Water Advisory Issued @ 1700

Repaired @ 1730

06-30-05

Bact. Samples Collected:

Downstream-001- 1.22 @ 0825

Downstream-002- 1.10 @ 0837

Downstream-003- 1.08 @ 0847

07-01-05

Bact. Sample Negative

Talked with Robert Pack w/DOW @ Hazard

Boil Water Advisory lifted @ 1530

## **Line Break**

12-06-06

8" Line at Hornet Drive and Superior Ln.

Off @ 1115

15 Homes and 3 Schools Effected

Talked to Damon White- DOW @ 1125

N.O.C.- 2251863

Boil Water Advisory Issued @ 1200

Repaired @ 1200

12-06-06

Bact. Samples Collected:

Downstream-001- @

Downstream-002- @

Downstream-003- @

12-07-06

Bact. Sample Negative

Talked with Ferris Sexton w/DOW @ Hazard

Boil Water Advisory lifted @ 1600

## **Line Break**

08-27-08

6" Line In Dixie Addition, Sugar Camp, & Auxier Branch

Off @ 1430

150 Customers Effected

Boil Water Advisory Issued @ 1500

Repaired @ 1830

08-27-08

Talked to Damon White- DOW @ 1505

NOC- 2283415

08-28-08

Bact. Samples Collected:

Downstream-001- 1.40 @ 945

Downstream-002- 1.24 @ 1000

Downstream-003- 1.30 @ 1015

08-29-08

Bact. Samples Negative

Talked with Roger Martin w/DOW @ Hazard

Boil Water Advisory lifted @ 1600

**SALYERSVILLE WATER WORKS  
401 COLLEGE STREET  
SALYERSVILLE, KENTUCKY 41465  
606-349-3743 FAX 606-349-3752**

**October 9, 2008**

**There continues to be boil water advisory in effect Countywide in Magoffin County. All citizens are advised to boil all water used for consumption for 2-3 minutes before drinking or cooking with it. You may experience discoloration in your water during the next few days.**

**For further questions or concerns please contact our office at the above number.**

**Thomas Howard, Supt.**



# DIFFICULTY IN MAINTAINING CHLORINE RESIDUAL

11-13-08

Boil Water Advisory Issued @ 1000 For All Magoffin County  
Until Further Notice Due to Difficulty In Maintaining Chlorine  
Residual

3000 to 5000 Customers Effected  
Boil Water Advisory Issued @ 1000  
By Division Of Water

11-13-08

Talked with Angie Terry-DOW@1030

NOC- 2286663

11-24-08

Bact. Samples Collected:

Original Site- 001-0.79 @ 1100

Original Site- 015- 0.85 @ 1110

Original Site- 017- 0.98 @ 1120

Original Site- 018- 0.68 @ 1130

11-25-08

Bact. Samples Negative

Talked with Amanda @ McCoy & McCoy Lab.

11-25-08

Talked with Damon White w/DOW @Hazard

Boil Water Advisory Lifted @ 1625

## Salyersville Water Works

---

**From:** Angela Sparkman [angela.sparkman@wymtnews.com]  
**Sent:** Friday, October 10, 2008 10:06 AM  
**To:** waterworks@foothills.net  
**Subject:** [Fwd: News release: Magoffin water shortage]



untitled-1.2



image001.jpg



image002.jpg



\_AVG  
certification\_.txt

----- Original Message -----  
Subject: News release: Magoffin water shortage  
From: "Carroll, Jim (PPC)" <Jim.Carroll@ky.gov>  
Date: Fri, October 10, 2008 8:16 am  
To:

Energy and Environment Cabinet

Gov. Steve Beshear  
Dr. Len Peters Secretary

Contacts:

Allison Fleck, Division of Water

502-545-3410

Guy Delius, Kentucky Department of Public Health

502-564-7398

Andrew Melnykovich, Public Service Commission

502-564-3940

Gary Rogers, Kentucky Emergency Management

502-607-1611

For Immediate Release

Magoffin Water Supply Facing Emergency Shortages

State agencies work to establish alternate supplies

FRANKFORT, Ky. (Oct. 10, 2008) -- Magoffin County residents are facing a water supply emergency as their water supply continues to diminish.

Imminent loss of the primary water source, the Licking River at Salyersville, will substantially decrease the ability of Salyersville Municipal Water to supply its customers. State agencies are working with local officials to establish alternate water supply sources.

"It is of prime importance that measures are taken to ensure a safe water supply to the residents of the city and county," said Guy Delius, director of the Department for Public Health's Division of Public Health Protection. "Until permanent relief can be provided in this area, everyone must make a concerted effort to conserve water in Magoffin County."

The Kentucky Division of Water placed Magoffin County under a water shortage warning Sept. 26. City and county officials have declared a state of emergency for the affected area.

"The current supply available in the Licking River is limited to the amount of water stored in the pool at Salyersville, which will not be replenished until the area receives substantial rain," said Chris Yeary, supervisor of the Division of Water's Water Quantity Management Section.

There is no anticipation of significant rainfall in the near future that will provide relief for the current situation, Yeary added.

Precipitation totals in the headwaters of the Licking River associated with the recent rainfall event were limited to a half-inch and did little to alleviate the current water supply condition. The 6- to 10-day and 8- to 14-day outlooks from the National Weather Service's Climate Prediction Center both indicate below-normal chances of precipitation for Magoffin County.

The Kentucky Division of Emergency Management (KYEM) has been monitoring the Magoffin County water situation during the past several weeks, working very closely with local officials and state agencies seeking a solution to the problem. KYEM Director, General John W. Heltzel, stated, "Obviously the best solution is much needed rain. Even then there is no guarantee this problem will not re-occur in the future. As local and state officials, it is our responsibility to take whatever steps necessary to ensure that folks across the state, not just Magoffin County, have safe and adequate water available. We all need to be mindful, especially during times like these, to conserve and protect our natural resources. It is much too easy to take something as common as clean water for granted."

The current source of most of Salyersville Municipal Water's supply is two back-up wells. It is anticipated that the back-up wells cannot sustain current demands. The state agencies are encouraging Salyersville Municipal Water and Magoffin County Water District to interconnect with water supplies in nearby counties as an interim measure.

It is important that customers of Salyersville Municipal Water and Magoffin County Water District limit water usage to that which is necessary for basic human health and sanitary needs. Citizens are

strongly encouraged to follow all recommendations from their water suppliers. Any additional increases in demand for water will lead to limitations in the ability to supply water to the area as a whole.

"The situation developing in Magoffin County is very serious and water conservation is of utmost importance to sustain the water system until alternative sources can be used," said Environment and Energy Cabinet Secretary Dr. Len Peters.

For more information on drought conditions, water availability and conservation

tips, visit the Division of Water's drought Web site at

<http://www.water.ky.gov/wateruse/drought/>

- 30 -

Jim Carroll

Public Protection Cabinet/Energy & Environment Cabinet/Labor Cabinet

Office of Communications & Public Outreach

5th floor, Capital Plaza Tower

500 Mero St.

Frankfort, KY 40601

502-564-5525, ext. 153 (office)

502-229-3484 (cell)

502-564-3969 (fax)

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Angela Sparkman

WYMT-TV Reporter

Big Sandy Bureau Chief

606-478-5711 Direct Line

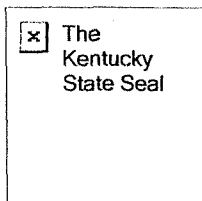
606-436-5757 ext. 1289

606-438-7329 cell

[angela.sparkman@wymtnews.com](mailto:angela.sparkman@wymtnews.com)

## Salyersville Water Works

**From:** Fleck, Allison (EEC) [Allison.Fleck@ky.gov]  
**Sent:** Thursday, November 13, 2008 4:26 PM  
**Subject:** Boil Water Advisory Issued for Magoffin County



### ENERGY AND ENVIRONMENT CABINET

**Gov. Steven L. Beshear**

**Dr. Len Peters, Secretary**

**Contact:  
Allison Fleck, Division of Water  
859-312-9506**

**For Immediate Release**

## **Boil water advisory issued for Magoffin County** *Low water in the Licking River diminishing quality*

FRANKFORT, Ky. (Nov. 13, 2008) – The Kentucky Department for Environmental Protection has issued a boil water advisory for Magoffin County resulting from poor water conditions in the Licking River.

The river is the primary source of water supply for the Magoffin County Water District and the City of Salyersville. Both water systems are served by Salyersville Municipal Water. Approximately 15,000 people are affected by the advisory.

A boil water advisory is a preventive measure to protect the health of the community from waterborne infectious agents. An advisory is issued after careful consideration among representatives from public health, regulatory and municipal agencies.

While water levels in the Licking River have risen slightly since a state of emergency was declared Oct. 10 due to low flow, the accumulation of leaves and high levels of

manganese have diminished the quality of the water, said Julie Roney, drinking water coordinator at the Division of Water.

“We have been working with the water utility to adjust the chlorine levels to mitigate these issues, but so far the additional applications have been insufficient to maintain the required minimum residual chlorine level in the distribution system,” she said. “This advisory was issued in the interest of public safety.”

Heavy leaf content causes the water to turn dark as the organic material deteriorates. High manganese levels are common when water is drawn from lower depths of supply sources. While neither of these conditions is harmful, it becomes difficult to “feed” enough chlorine to resolve the problem and continue to protect against bacteria.

“The chlorine is simply used up in the process of cleaning the water,” said Roney. “There is, then, no chlorine left over to protect the distribution system.”

Magoffin County residents are advised to prepare water for drinking, cooking and tooth brushing by bringing it to a rolling boil for three minutes (timing starts when the water begins to bubble). Cool the water, then place it in clean containers for use or refrigerate.

Hot, soapy water can be used for dishwashing and kitchen/bathroom surface cleaning. As a precaution, add one tablespoon of bleach per gallon. Water for laundering and bathing does not need to be boiled.

- 30 -



SALYERSVILLE WATER WORKS  
401 COLLEGE STREET  
SALYERSVILLE, KENTUCKY 41465  
606/349-3743 FAX 606/349-3752

## BOIL WATER ADVISORY

The Salyersville Water Works have issued a boil water advisory  
for the area of Dixie (except) Auxier Branch

---

The customers need to boil their drinking, and cooking water for  
three minutes.

Date: December 2, 2008





**The Salyersville Water Works has declared a  
water shortage emergency.**

The Salyersville Water Works uses the Licking River as it's main source of supply. Because of the severe draught effecting Eastern Ky., the river is at a very low stage. Therefore in order to prolong the supply as long as possible, all non-essential use of water is prohibited.

**The following uses are prohibited until further notice.**

- Using sprinklers or hosepipes to water gardens, lawns, verges, allotments, parks or sports or recreation grounds, whether publicly or privately-owned
- Filling privately-owned swimming pools other than for medical treatment
- Filling ornamental ponds other than fishponds
- Operating mechanical car washes
- Washing cars, boats, trains or aircraft for any reason apart from safety or hygiene
- Cleaning the outsides of buildings apart from windows
- Cleaning industrial premises or plants, apart from for safety or hygiene reasons
- Using hosepipes or sprinklers to clean windows
- Running ornamental fountains and cascades

The Salyersville Water Works has 2 wells which are being utilized to augment our water supply.

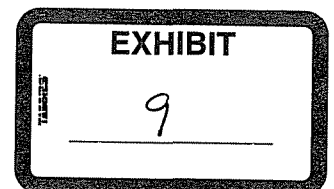
But the wells can only produce 40% of needed capacity.

We ask that our customers restrict their use of water as much as possible.

Persons caught violating these restrictions could face fines up to \$250.00.

If you have any questions call 349-3743

Effective Sept. 28, 2007



**SALYERSVILLE WATER WORKS  
401 COLLEGE STREET  
SALYERSVILLE, KENTUCKY 41465  
606/349/3743 FAX 606/349/3752**

**August 22, 2008**

**Effective 8/22/08, The Salyersville Water Works has issued restrictions on all Car Washes, all unnecessary watering, gardens, lawns, etc., must stop due to the need to conserve water. Anyone found not following these restrictions would be prosecuted to the fullest extent of the law.**

**Thomas Howard, Supt.**



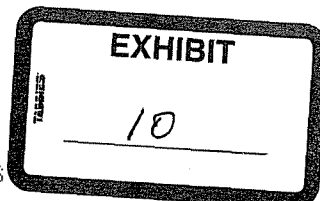
CITY OF SALYERSVILLE, KY.  
ORDINANCE NO. 610.7

AN ORDINANCE OF THE CITY OF SALYERSVILLE, KENTUCKY,  
RELATING TO WATER CONTROL AND ESTABLISHING PENALTIES  
FOR VIOLATIONS THEREOF:

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SALYERSVILLE,  
KENTUCKY, THAT:

Section I. Water Shortage Response Ordinance

- (a) There is hereby designated and established official phases of notification relating to water supply shortage situations which, upon declaration by the Mayor, shall require the implementation of voluntary and mandatory water conservation measures with customers of the Salyersville City Waterworks.
- (b) Whenever an officer of the Salyersville City Waterworks, the supplier of potable water from the municipal water treatment plant, finds that a potential shortage of the supply of treated water exists or will exist, upon written certification thereof to the Mayor of Salyersville, the Mayor may publicly declare a WATER SHORTAGE ADVISORY. In addition to the declaration, the Mayor shall call upon all customers of the Salyersville Waterworks to employ measures of voluntary water conservation and to eliminate the waste of all treated water.
- (c) Whenever an officer of the Salyersville City Waterworks, the public supplier of potable water in Salyersville and surrounding areas, finds that a condition exists where it will not be able to meet the expected needs of its customers, upon written certification thereof to the Mayor of the City of Salyersville, the Mayor may publicly declare a WATER SHORTAGE ALERT. In addition to the declaration the Mayor may call upon all customers of the Salyersville City Waterworks to employ voluntary water conservation, and to eliminate the waste of all treated water and to use treated water outside of buildings (such as usage to include, but not limited to, car washing, driveway washing, filling of swimming pools; use and filling of fountains and watering of lawns, bushes and trees) only in accordance with the following schedule:
- (1) Designated sections of the service area, which will be announced at such time that these emergency measures are put into effect, may use water between the hours of 8:00 AM and 10:00 AM on Tuesday, Thursday and Saturday.
  - (2) Designated sections of the service area, which will be announced at such time that these emergency measures are put into effect, may use water between the hours of 8:00 AM and 10:00 AM on Wednesday, Friday and Sunday.
- (d) Whenever an officer of the Salyersville City Waterworks, the public supplier of potable water, finds that they are unable to meet the expected needs of its customers and that such a condition will exist for some period of time in the future, and upon written certification thereof to the Mayor of the City of Salyersville, the Mayor may publicly declare a WATER SHORTAGE EMERGENCY. In addition to the declaration, the Mayor may call upon all customers of the water system to employ voluntary water conservation, and to eliminate the waste of all treated water outside of buildings, and to use water only as necessary to maintain minimum standards of hygiene and sanitation, and to provide for essential health and public protection purposes.



- (e) Whenever the Mayor has declared a "water shortage alert" or "water shortage emergency" pursuant to subsections (c) or (d) of this section, he may promulgate such administrative regulations governing all water usage by all customers of the Salyersville Municipal Waterworks as may, in his discretion, appear necessary to protect the health and public safety of the residents of Salyersville and customers of the Municipal Waterworks in a manner consistent with the terms of this section. Specifically, when a WATER SHORTAGE EMERGENCY has been declared, the attendant administrative regulations may cite the need for the equitable distribution of the critically limited water supply, and in order to insure that limited water supplies are used to best preserve the public health and safety, the Mayor is empowered to institute mandatory water rationing.
- (f) The declaration of a water shortage advisory, water shortage alert or water shortage emergency shall continue until an officer of the Salyersville City Waterworks finds that the conditions calling for the declaration no longer exists, and upon written certification thereof to the Mayor of Salyersville the Mayor may publicly declare the condition no longer existing.
- (g) Any person who violates the provisions of subsection (c) of this section shall be subject to a fine of up to Five Hundred Dollars (\$500.00). Any person who violates the provisions of subsection (d) of this section shall be subject to a fine of up to Five Hundred Dollars (\$500.00) and up to thirty (30) days imprisonment. Each day in violation of the terms of subsections (c) or (d) of this section shall constitute a separate offense.
- (h) "Customer" of the Salyersville City Waterworks shall be defined as anyone located in the City of Salyersville or Magoffin County who depends upon the Salyersville City Waterworks for their primary source of potable water.

Section II. Effective upon passage

- (a) This Ordinance shall be effective immediately upon its passage.

ADOPTED, THIS 8th DAY OF JULY, 1988, BY THE CITY COUNCIL OF THE CITY OF SALYERSVILLE, KENTUCKY.

SIGNED: Walter Joe Howard  
WALTER JOE HOWARD, MAYOR OF SALYERSVILLE

ATTEST: Carlotta Howard  
CARLOTTA HOWARD, CITY CLERK OF SALYERSVILLE



WATER PURCHASE CONTRACT

This contract for the sale and purchase of water is entered into as of the 26<sup>th</sup> day of January,  
19 83, between the Salversville Water Commission (City of Salversville)  
P. O. Box 640 Salversville, Ky.  
(Address)

hereinafter referred to as the "Seller" and the Magoffin County Water District  
P.O. Box 430, Salversville, Ky.  
(Address)

hereinafter referred to as the "Purchaser", and is to become effective on the date of receipt  
by Seller of Request by Purchaser as per Sec. C. #3.  
WITNESSETH:

Whereas, the Purchaser is organized and established under the provisions of Chapter 74 of the  
Code of Kentucky Revised Statutes, for the purpose of constructing and operating a water supply distribution  
system serving water users within the area described in plans now on file in the office of the Purchaser and to accomplish  
this purpose, the Purchaser will require a supply of treated water, and

Whereas, the Seller owns and operates a water supply distribution system with a capacity currently capable of serving the  
present customers of the Seller's system and the estimated number of water users to be served by the said Purchaser as shown  
in the plans of the system now on file in the office of the Purchaser, and

Whereas, by Resolution No. \_\_\_\_\_ enacted on the 13th day  
of January, 19 83, by the Seller, the sale of water to the Purchaser in accordance  
with the provisions of the said Resolution was approved, and the execution of this contract  
carrying out the said Resolution by the Chairman of the Salversville Water Commission  
and attested by the Secretary, was duly authorized, and

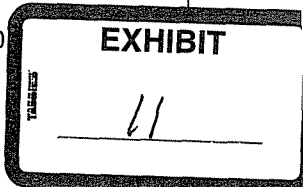
Whereas, by Resolution of the Board of Commissioners  
of the Purchaser, enacted on the \_\_\_\_\_ day of \_\_\_\_\_, 19 83,  
the purchase of water from the Seller in accordance with the terms set forth in the said Resolution  
was approved, and the execution of this contract by the Chairman of the Magoffin County Water District  
attested by the Secretary was duly authorized;

Now, therefore, in consideration of the foregoing and the mutual agreements hereinafter set forth,

A. The Seller Agrees:

1. (Quality and Quantity) To furnish the Purchaser at the point of delivery hereinafter specified, during the term of  
this contract or any renewal or extension thereof, potable treated water meeting applicable purity standards of the \_\_\_\_\_  
Ky DNRSP and State Health Department

in such quantity as may be required by the Purchaser not to exceed 7,000,000 gallons per month, nor  
160 gpm at each metering station.



2. (Point of Delivery and Pressure) That water will be furnished at a reasonably constant pressure calculated at 30 psi from an existing Six (6) and Eight (8) inch main supply at a point ~~located~~ illustrated on attached map.

If a greater pressure than that normally available at the point of delivery is required by the Purchaser, the cost of providing such greater pressure shall be borne by the Purchaser. Emergency failures of pressure or supply due to main supply line breaks, power failure, flood, fire and use of water to fight fire, earthquake or other catastrophe shall excuse the Seller from this provision for such reasonable period of time as may be necessary to restore service.

3. (Metering Equipment) To furnish, install, operate, and maintain at its own expense at point of delivery, the necessary metering equipment, including a meter house or pit, and required devices of standard type for properly measuring the quantity of water delivered to the Purchaser and to calibrate such metering equipment whenever requested by the Purchaser but not more frequently than once every twelve (12) months. A meter registering not more than two percent (2%) above or below the test result shall be deemed to be accurate. The previous readings of any meter disclosed by test to be inaccurate shall be corrected for the three (3) months previous to such test in accordance with the percentage of inaccuracy found by such tests. If any meter fails to register for any period, the amount of water furnished during such period shall be deemed to be the amount of water delivered in the corresponding period immediately prior to the failure, unless Seller

and Purchaser shall agree upon a different amount. The metering equipment shall be read on during 4th week of month. An appropriate official of the Purchaser at all reasonable times shall have access to the meter for the purpose of verifying its readings.

4. (Billing Procedure) To furnish the Purchaser at the above address not later than the 5th day of each month, with an itemized statement of the amount of water furnished the Purchaser during the preceding month.

B. The Purchaser Agrees:

1. (Rates and Payment Date) To pay the Seller, not later than the 15th day of each month, for water delivered in accordance with the following schedule of rates:

- a. \$ xxxxxxxxxxxx for the first xxxxxxxxxxxx gallons, which amount shall also be the minimum rate per month.
- b. \$ 1.25 cents per 1000 gallons ~~for water in excess of xxxxxxxxxxxxxxxxx gallons but less than xxxxxxxxxxxxxxxxx gallons xxxxxxxxxxxxxxxxx~~
- c. \$ xxxxxxxxxxxx cents per 1000 gallons ~~for water in excess of xxxxxxxxxxxxxxxxx gallons~~

2. (Connection Fee) To pay as an agreed cost, a connection fee to connect the Seller's system with the system of the Purchaser, the sum of xxxxxxxxxxxx dollars which shall cover any and all costs of the Seller for installation of the metering equipment and appropriately sized as shown by invoice to include labor and materials and an additional 10 % of these costs. Thereinafter seller shall be responsible for maintenance and accuracy of said metering equipment.



C. It is further mutually agreed between the Seller and the Purchaser as follows:

1. (Term of Contract) That this contract shall extend for a term of forty (40) years from the date of the initial delivery of any water as shown by the first bill submitted by the Seller to the Purchaser and, thereafter may be renewed or extended for such term, or terms, as may be agreed upon by the Seller and Purchaser.

2. (Delivery of Water) That thirty (30) days prior to the estimated date of completion of construction of the Purchaser's water ~~supply~~ distribution system, the Purchaser will notify the Seller in writing the date for the initial delivery of water, or any Section thereof,

3. (Water for Testing) When requested by the Purchaser the Seller will make available to the contractor at the point of delivery, or other point reasonably close thereto, water sufficient for testing, flushing, and trench filling the system of the Purchaser during construction, irrespective of whether the metering equipment has been installed at that time, at a

flat charge of \$ 1.25/1000g which will be paid by the contractor or, on his failure to pay, by the Purchaser.

4. (Failure to Deliver) That the Seller will, at all times, operate and maintain its system in an efficient manner and will take such action as may be necessary to furnish the Purchaser with quantities of water required by the Purchaser. Temporary or partial failures to deliver water shall be remedied with all possible dispatch. In the event of an extended shortage of water, or the supply of water available to the Seller is otherwise diminished over an extended period of time, the supply of water to Purchaser's consumers shall be reduced or diminished in the same ratio or proportion as the supply to Seller's consumers is reduced or diminished.

5. (Modification of Contract) That the provisions of this contract pertaining to the schedule of rates to be paid by the Purchaser for water delivered are subject to modification at the end of every two (2) year period. Any increase or decrease in rates shall be based on a demonstrable increase or decrease in the costs of performance hereunder, but such costs shall not include increased capitalization of the Seller's system. Other provisions of this contract may be modified or altered by mutual agreement. (See item 9)

6. (Regulatory Agencies) That this contract is subject to such rules, regulations, or laws as may be applicable to similar agreements in this State and the Seller and Purchaser will collaborate in obtaining such permits, certificates, or the like, as may be required to comply therewith.

7. (Miscellaneous) That the construction of the water supply distribution system by the Purchaser is being financed by a loan made or insured by, and/or a grant from, the United States of America, acting through the Farmers Home Administration of the United States Department of Agriculture, and the provisions hereof pertaining to the undertakings of the Purchaser are conditioned upon the approval, in writing, of the State Director of the Farmers Home Administration.

8. (Successor to the Purchaser) That in the event of any occurrence rendering the Purchaser incapable of performing under this contract, any successor of the Purchaser, whether the result of legal process, assignment, or otherwise, shall succeed to the rights of the Purchaser hereunder.

9. All subsequent rate changes will occur at the same time and in the same percentage of change as applied to all customers of the Salyersville Water Commission both inside and outside the city.

10. It is agreed that all of the Purchaser's rights and equities under this contract may be and the same are hereby pledged to the USDA, FmHA, as security for a loan FmHA proposes to make to purchaser to finance the construction of a water system.

In witness whereof, the parties hereto, acting under authority of their respective governing bodies, have caused this contract to be duly executed in Seven (7) counterparts, each of which shall constitute an original.

Seller:

SALYERSVILLE WATER COMMISSION

By Donald Crowder

Title CHAIRMAN

John W. Robertson  
Clinton Pruitt

Purchaser:

MAGOFFIN COUNTY WATER COMMISSION

By Bill Pruitt

Title CHAIRMAN

Attest:

Carla Howard  
Secretary

Attest:

Ray O'Connell  
Secretary

This contract is approved on behalf of the Farmers Home Administration this \_\_\_\_\_ day of \_\_\_\_\_,

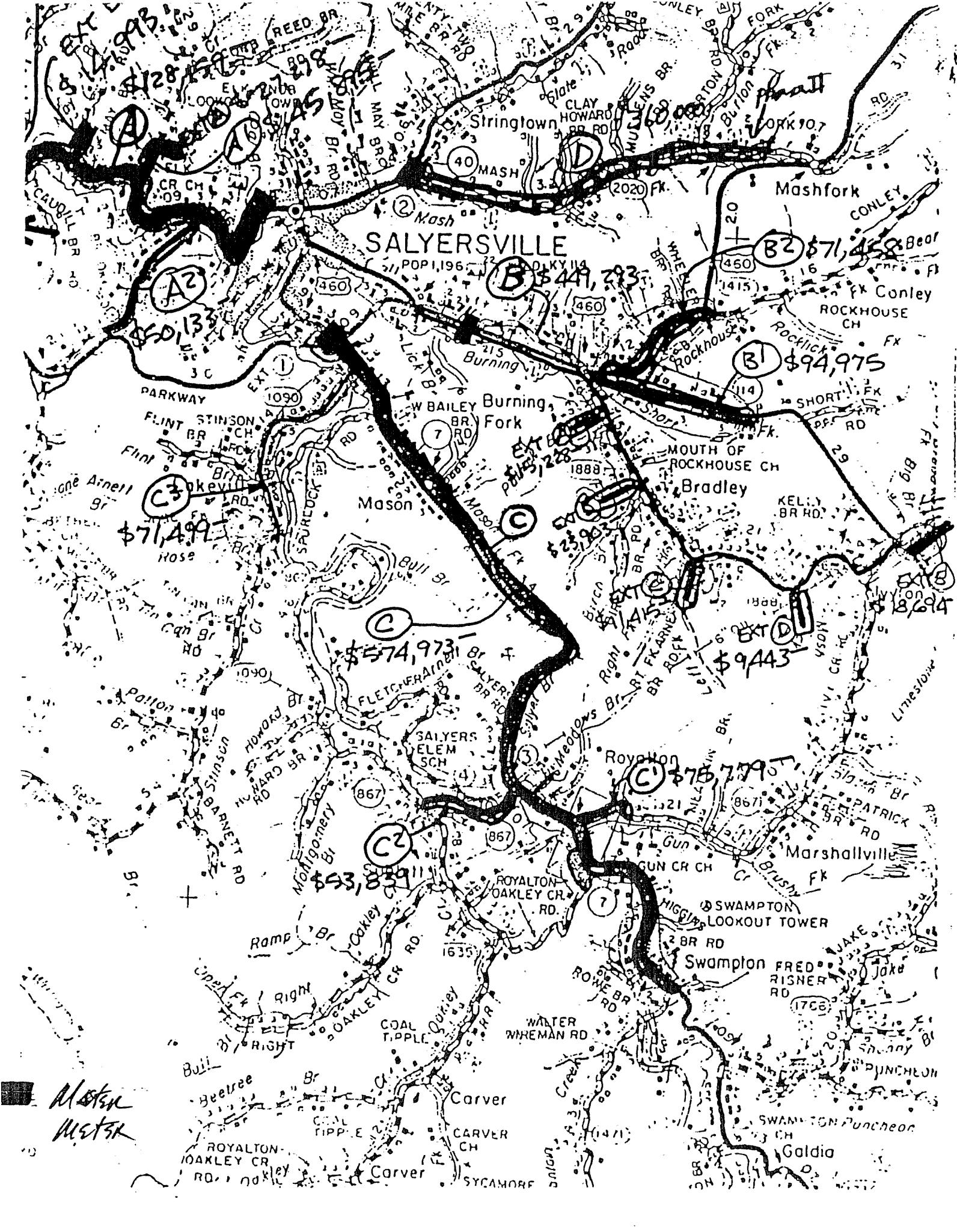
19 \_\_\_\_\_.

By \_\_\_\_\_

Title \_\_\_\_\_

SALYERSVILLE

POPI, 196



(A2) \$50,133

(B) \$449,293

(B2) \$71,452

(B1) \$94,975

(C3) \$71,491

(C) \$574,973

(D) \$9443

(C) \$75,779

(C2) \$53,839

M. STEIN  
M. STEIN

AMENDED WATER PURCHASE CONTRACT

This Amended Water Purchase Contract, made and entered into this \_\_\_\_ day of August, 2003, between the Salyersville Water Commission (City of Salyersville) P. O. Box 640, Salyersville, KY 41465; hereinafter referred to as the Seller and the Magoffin County Water District, P. O. Box 4 90, Salyersville, KY 41465; hereinafter referred to as the Purchaser.

The Magoffin County Water District entered into a Water Purchase Contract on January 26, 1983 with the Salyersville Water Works and the contract has been amended on several occasions but the last amendment was September 20, 2000.

Witnesseth: That in consideration of the mutual covenants contained herein, Seller and Purchaser do hereby agree and covenant that the Water Purchase Contract of January 26, 1983 and all amendments be amended as follows:

- 1. That the quality and quantity of portable water that the Magoffin County Water District may purchase be increased from 17,000,000 gallons per month to a maximum of 19,000,000 gallons per month at the same contract rate. The Salyersville Water Works shall guarantee that they can and will provide this amount of water to the Magoffin County Water District.

IN WITNESS WHEREOF, the parties hereto, acting under the authority of their respective governing bodies have caused the contract to be duly executed.

This the 29 day of <sup>June</sup>~~August~~, 2004

H. C. Proter

ATTEST:

Paul D. Hammond

SELLER:

SALYERSVILLE WATER

Judy Jackson  
Chairman

ATTEST:

Yvonne Hall

PURCHASER:

MAGOFFIN COUNTY WATER

Barry W. Sawyer  
Chairman



MINUTES OF MEETING  
SALYERSVILLE CITY COUNCIL  
FEBRUARY 10, 2003

The Salyersville City Council met in regular session on Monday, February 10, 2003, in City Hall. Council members present were Maxie Arnett, Charles Basham, Belsey Connelley, Tom Frazier, Tex Holbrook, and Kenneth Williams. There were none absent.

Honorable Stanley Howard called the meeting to order at 7:00 P.M., followed by Belsey Connelley giving the invocation and Charles Basham leading in the Pledge of Allegiance.

A motion was made by Charles Basham and seconded by Kenneth Williams to approve the minutes of the previous meeting as recorded. Vote was unanimous.

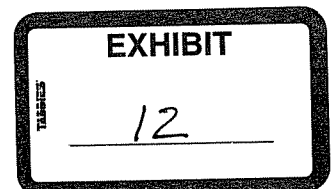
Bills were presented for approval of payment (copies are attached). A motion to pay the bills was made by Tom Frazier and seconded by Belsey Connelley. Vote was unanimous.

A motion was made by Belsey Connelley to advertise for procurement for a water supply study. Charles Basham seconded the motion. Vote was unanimous.

Mayor Howard reported he had met with a representative of the State Highway Department in Jackson concerning the installation of a flashing light near Salyersville Health Care Center on Parkway Drive. A motion was made by Charles Basham to install lights at both Salyersville Health Care and Mountain Valley Rest Home since both are subject to patients being on the roadway. Kenneth Williams seconded the motion. Vote was unanimous.

A discussion of blacktop projects to be undertaken was held. Mayor Howard reported that he thought the wisest route to be taken to get the most from funds available would be to purchase a blacktop machine and do the work with our own work force. He is to check into prices on such a purchase and report back to council at their next meeting.

Since many street lights throughout the city are being billed and are not working, it was suggested a letter be drafted directing police officers to do a survey on these lights. Also, residents are encouraged to call and report any lights near their home which are out of order.



A motion was made by Tom Frazier to order a light be placed in Ramey Park. This will be on the left side where you go into the park near the picnic shelter. Charles Basham seconded the motion. Vote was unanimous.

Mayor Howard reported that the state will only be spraying for mosquitos three times this year, due to budget shortfalls. Since there is such a problem with mosquitos in our area, he suggested checking into the possibility of buying a mosquito sprayer and insecticide for the city's use. Prices are to be checked prior to the next meeting.

A Resolution affirming continuation in Magoffin County Solid Waste Management Area was introduced. A motion was made by Charles Basham to adopt said Resolution. Maxie Arnett seconded the motion. Vote was unanimous

Since the Renaissance Committee has a regular street sweeping schedule, signs are needed to post days and hours this will be done in order to keep traffic from parking in the area. A motion was made by Charles Basham and seconded by Kenneth Williams to authorize purchasing signs. Vote was unanimous.

Kenneth Gambill's letter of request for city approval of construction of a sub-division in Upper Dixie was the next item on the agenda. A motion was made by Maxie Arnett to give him a letter approving the project. Belsey Connelley seconded the motion. Vote was unanimous.

In order to be in compliance with guidelines to receive Federal Grant funds several issues concerning civil rights policies must be put in place. A Resolution adopting a 504 Plan to assure that the City does not discriminate on the basis of handicap was introduced. Mayor Howard recommended that Karen Howard and Sandy Montgomery be designated as Joint Coordinators of the Plan. A motion was made by Charles Basham to adopt the Resolution and approve the Coordinators. Tex Holbrook seconded the motion. Vote was unanimous.

In discussing the Title VI Plan to further ensure compliance in non-discrimination issues, a motion was made by Charles Basham to adopt the plan as revised by the City Attorney. Belsey Connelley seconded the motion. Vote was unanimous. A Title VI Coordinator and Advisory Board will be appointed after final draft is approved.

Mayor Howard told Council he had re-appointed Patricia Patrick and Mike Patrick to represent the City on the Park Board. A motion was made by Charles Basham and seconded by Kenneth Williams to approve these positions. Vote was unanimous.

Since we have a vacancy for a Republican delegate to represent the City on the Housing Authority, Mayor Howard recommended the appointment of Jackie Minix. A motion was made by Belsey Connelley and seconded by Tex Holbrook to approve this appointment. Vote was unanimous.

The term of Paul Howard on the Water Commission had expired and Mayor Howard recommended his re-appointment. A motion was made by Tom Frazier and seconded by Kenneth Williams to approve. Vote was unanimous.

Joe Patton, Legal Advisor representing Foothills Corporation, advised Council he had proposed payment of 22-cents per household served by their cable service. He requested permission from Council to meet with Mike Lyons and draft an agreement between the two agencies. A motion was made by Maxie Arnett and seconded by Kenneth Williams to approve. Vote was unanimous.

A motion to adjourn was made by Belsey Connelley and seconded by Maxie Arnett. Vote was unanimous.

City of Salyersville, KY

By Stanley Howard  
Stanley Howard, Mayor

Attest:

Carlotta Howard  
Carlotta Howard, City Clerk



# City of Salyersville

SALYERSVILLE, KENTUCKY 41465-0640  
606/349-2409  
FAX 606/349-2449



May 14, 2003

Jason Blackburn  
P.O. Box 621  
Jackson, KY 41339

Dear Mr. Blackburn:

The City of Salyersville is experiencing problems with a shortage of potable water for our citizens. At the present time we are supplying all of the city and about two-thirds of Magoffin County from our meager supply.

It is imperative that we seek additional sources of water in order to meet our present demand and anticipated needs in the future. In order to do this, we are requesting temporary authority to enter onto the right-of-way of the Kentucky Department of Highways to drill test for wells. This would involve the areas of the Mountain Parkway/Route 114.

I sincerely hope you can help us get this approved. Any assistance on the matter will be greatly appreciated.

Please advise us as soon as possible since our need must be addressed immediately.

Sincerely,

A handwritten signature in cursive script that reads "Stanley Howard".

Stanley Howard  
Mayor of Salyersville, KY

**KENTUCKY TRANSPORTATION CABINET**



**Jason Blackburn**  
Permits - E.I.T.

Department of Highways District Ten  
1473 Highway 15 South Jackson, KY 41339  
Bus: 606.666.8841 Fax: 606.666.7074  
Email: jblackburn@mail.kytc.state.ky.us

911  
address

P.O. Box 621  
Jackson Ky  
41339

MINUTES OF REGULAR MEETING  
AUGUST 11, 2003

The Salyersville City Council met in regular session on Monday, August 11, 2003, in City Hall. Honorable Stanley Howard, Mayor, called the meeting to order at 7:00 P.M. Council members present were: Maxie Arnett, Charles Basham, Belsey Connelley, Tom Frazier, Tex Holbrook, and Kenneth Williams; there were none absent.

The meeting was opened with prayer, led by Councilman Belsey Connelley. Councilman Charles Basham led in the Pledge of Allegiance.

Next item on the agenda was approval of the minutes of the previous meeting. A motion was made by Charles Basham to amend paragraph five, section (4) to delete the word "profit" which would read as follows: "...additional sum of 3% of gross annual income." Following this motion, Tom Frazier stated that he was opposed to the franchise since Foothills has run all the new lines downtown if they cannot be run differently. Mr. Basham said he was for adopting the franchise with a time frame to remove the lines. Tom Preston CEO with Foothills, informed Council that lines had been re-routed due construction of the new Justice Center. Also, he said that installation of a fiber optic system would be started this fall and that lines would be moved around buildings as customers were hooked on to the new system. Rick Howard of Howard's TV Cable stated that his re-routing of lines would be completed within 85-90 days. Since the cost of burying and re-routing is so expensive, the City Attorney was advised to check with neighboring towns and see how they secured funds for their projects. Maxie Arnett seconded the motion originally made by Charles Basham. Vote: aye - Maxie Arnett, Charles Basham, Belsey Connelley, Tex Holbrook, Kenneth Williams; nay - Tom Frazier.

Charles Basham made a motion to approve the minutes as amended. Belsey Connelley seconded the motion. Vote: aye - Maxie Arnett, Charles Basham, Belsey Connelley, Tex Holbrook, and Kenneth Williams; nay - Tom Frazier.

The issue of burying or re-locating utility lines has been a hot topic of discussion over many years but no ordinance has ever been adopted making it mandatory. Mike Lyons was instructed to work up an ordinance to that effect prior to the next meeting.

A motion was made by Kenneth Williams and seconded by Belsey Connelley to approve payment of city bills. Vote was unanimous.

Kevin Howard with Summit Engineers gave an up-date to Council on project status for each of the Sewer Improvement contracts. He advised that he had been informed that the Encroachment Permit to work on highways had been cancelled. According to information provided, this was by phone from someone in the city, notifying them the project had been completed. However, no one was aware of the phone call or who had made it. Normal procedure to cancel the permits in the past had always been to file a completion report. This will be checked into by office personnel.

On Contract 1, B & L Contractors, Coal Branch Project: A motion was made by Charles Basham to accept the completion contracts, subject to the approval of Kevin Howard. Belsey Connelley seconded the motion. Vote was unanimous.

On Contracts 2 and 4A, the change order voted on at the last meeting for installation of grinder pumps must be approved again due to the increase of cost to \$475.00 per unit. A motion was made by Belsey Connelley and seconded by Kenneth Williams to approve. Vote was unanimous.

Mike Lyons reported he had talked with the primary supervisors of the bonding company on Contract 3, both in New York and Tennessee. He advised Council to proceed with filing a claim. A motion was made by Maxie Arnett and seconded by Tex Holbrook to authorize the Engineers to take care of the paperwork on their behalf. Vote was unanimous.

Waterworks personnel had requested some additional changes be made at the treatment facility, Contract 4. These would consist of installation of utility outlets, putting tile on the floors of the office, restrooms and hallway, and painting the outside of the buildings. The total cost was \$8,310.91, which would be taken from contingency funds. A motion was made by Charles Basham to approve this change, seconded by Belsey Connelley. Vote was unanimous.

Brenda Powers, Project Administrator, presented the following bills for approval of payment:

E & D Contract 2	\$ 19,261.05	RD funds
W. Rogers Contract 4B	163,821.09	EDA funds
Summit Engineering	17,179.71	Pride 531
BSADD, Administration	2,500.00	EDA funds

A motion to approve payment was made by Tom Frazier and seconded by Kenneth Williams. Vote was unanimous.

Marlene Howard, Director of the Senior Citizen Center, presented Council with a petition requesting the "no parking" area on each side of the entrance to the Community Center be extended to include in front of the Methodist Church and in front of the Center. She was advised approval had already been voted to paint parking spaces and the area of no parking would be extended.

Dave Gardner with the Big Sandy ADD reported on the procurement of engineers to do a study on a water supply and seek funds to implement. The procurement committee is made up of Mayor Howard, Dave Gardner, Veronica Hall, Garry Rowe, Judy Jackson, and Paul Howard. Following the request for qualifications, 8 companies submitted proposals. After grading the firms, the number was narrowed down to two companies - American Engineers and Mayes, Sudderth & Etheredge. Several interviews and meetings have been held with each of them and the committee is recommending MSE be selected. The committee will meet with engineers one more time to develop a scope of work prior to entering into a contract for their services. A motion was made by Tom Frazier to have the engineers prepare a report for the city and go along with the recommendation of the committee. Maxie Arnett seconded the motion. Vote was unanimous.

A motion was made by Maxie Arnett and seconded by Kenneth Williams to amend Ordinance no. 220.6 to include the temporary off-site sale or display events "tent sales" of motor vehicles by dealers. Vote: aye - Maxie Arnett, Charles Basham, Belsey Connelley, Tom Frazier, Tex Holbrook, and Kenneth Williams; nay - none.

A motion was made by Kenneth Williams and seconded by Belsey Connelley to leave the vehicle tax rate at 30 cents per \$100 for 2004. Vote was unanimous.

Mayor Howard reported he had received a grant from emergency funds from the Department of Transportation up to \$40,000.00 to be used in resurfacing certain streets in the City. In order to qualify, a Resolution must be adopted to authorize him to sign the Contract Agreement papers. A motion was made by Charles Basham and seconded by Tex Holbrook to adopt the Resolution. Vote was unanimous.

Following legal advertisement for bids on blacktop, only one company had submitted a bid - Hinkle Contracting Company. A motion was made by Charles Basham and seconded by Belsey Connelley to accept their bid. Vote was unanimous.

Vote to approve the audit report for the Fiscal Year 2001-2002 was tabled until either a special meeting or the next regular meeting.

Charles Basham made a motion to amend the Personnel Policy pertaining to drug testing and drug use as follows: "any employee refusing to take a drug test will be fired; any employee testing positive to drug test will be fired; any employee taking prescription medication which would make it dangerous for him to operate equipment would be changed around at the work place to prevent such equipment use." Maxie Arnett seconded the motion. Vote: aye - Maxie Arnett, Charles Basham, Belsey Connelley, Tom Frazier, Tex Holbrook, and Kenneth Williams; nay - none.

A motion was made by Charles Basham to adjourn into Executive Session for personnel matters. Kenneth Williams seconded the motion. Vote was unanimous.

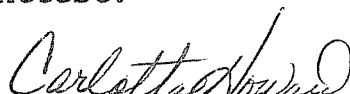
Upon returning into open session, the Mayor reported no action had been taken.

A motion to adjourn was made by Belsey Connelley and seconded by Kenneth Williams. Vote was unanimous.

City of Salyersville

  
Stanley Howard, Mayor

Attest:

  
Carlotta Howard  
City Clerk

## AGREEMENT FOR ENGINEERING SERVICES

✓

This Agreement, made this 14 day of Nov, 2003 by and between the City of Salversville, hereafter referred to as the OWNER, and Mayes, Sudderth & Etheredge, Inc. hereinafter referred to as the ENGINEER.

THE OWNER intends to construct a water system improvements project in Magoffin County, State of Kentucky which may be paid for in part with financial assistance through local funding and contributions and for which the ENGINEER agrees to perform the various professional engineering services for the design and construction of said system.

### WITNESSETH:

That for and in consideration of the mutual covenants and promises between the parties hereto, it is hereby agreed:

### SECTION A - ENGINEERING SERVICES

The ENGINEER shall furnish engineering services as follows:

1. The ENGINEER will conduct preliminary investigations, prepare preliminary drawings, provide a preliminary itemized list of probable construction costs.
  2. The ENGINEER will furnish 3 copies of the preliminary engineering analysis, and layout maps to the OWNER.
  3. The ENGINEER will attend conferences with the OWNER, or other interested parties as may be reasonably necessary.
  4. OWNER directs the ENGINEER to proceed, the ENGINEER will perform the necessary design surveys, accomplish the detailed design of the project, prepare construction drawings, specifications and contract documents, and prepare a final cost estimate based on the final design for the entire system. It is also understood that if subsurface explorations (such as boring, soil tests, rock soundings and the like) are required, the ENGINEER will furnish coordination of said explorations without additional charge, but the costs incident to such explorations shall be paid for by the OWNER as set out in Section D hereof.
  5. The contract documents furnished by the ENGINEER under Section A-4 shall utilize agency-endorsed construction contract documents, including Supplemental General Conditions, Contract Change Orders, and partial payment estimates. All of these documents shall be subject to OWNER approval.
  6. Prior to the advertisement for bids, the ENGINEER will provide for each construction contract, not to exceed 10 copies of detailed drawings, specifications, and contract documents for use by the OWNER, appropriate Federal, State, and local agencies from whom approval of the project must be obtained. The cost of such drawings, specifications, and contract documents shall be included in the basic compensation paid to the ENGINEER.
  7. The ENGINEER will furnish additional copies of the drawings, specifications and contract documents as required by prospective bidders, material suppliers, and other interested parties, but may charge them for the reasonable cost of such copies. Upon award of each contract, the ENGINEER will furnish to the OWNER five sets of the drawings, specifications and contract documents for execution. The cost of these sets shall be included in the basic compensation paid to the ENGINEER. Original documents, survey notes, tracings, and the like, except those furnished to the ENGINEER by the OWNER, are and shall remain the property of the ENGINEER.
  8. The drawings prepared by the ENGINEER under the provisions of Section A-4 above shall be in sufficient detail to permit the actual location of the proposed improvements on the ground. The ENGINEER shall prepare and furnish to the OWNER without any additional compensation, three copies of a map(s) showing the general location of needed construction easements and permanent easements and the land to be acquired. Property surveys, property plats, property descriptions, abstracting and negotiations for land rights shall be accomplished by the OWNER, unless the OWNER requests, and the ENGINEER agrees to provide those services. In the event the ENGINEER is requested to provide such services, the ENGINEER shall be additionally compensated as set out in Section D hereof.
- The ENGINEER will attend the bid opening and tabulate the bid proposals, make an analysis of the bids, and make recommendations

for awarding contracts for construction.

10. The ENGINEER will review and approve, for conformance with the design concept, any necessary shop and working drawings furnished by contractors.
11. The ENGINEER will interpret the intent of the drawings and specifications to protect the OWNER against defects and deficiencies in construction on the part of the contractors. The ENGINEER will not, however, guarantee the performance by any contractor.
12. The ENGINEER will establish baselines for locating the work together with a suitable number of bench marks adjacent to the work as shown in the contract documents.
13. The ENGINEER will provide general engineering review of the work of the contractors as construction progresses to ascertain that the contractor is conforming with the design concept.
14. Unless notified by the OWNER in writing that the OWNER will provide for resident inspection, the ENGINEER will provide resident construction inspection. The ENGINEER'S undertaking hereunder shall not relieve the contractor of contractor's obligation to perform the work in conformity with the drawings and specifications and in a workmanlike manner; shall not make the ENGINEER an insurer of the contractor's performance; and shall not impose upon the ENGINEER any obligation to see that the work is performed in a safe manner.
15. The ENGINEER will cooperate and work closely with funding or review agency representatives.
16. The ENGINEER will review the contractor's applications for progress and final payment and, when approved, submit same to the OWNER for payment.
17. The ENGINEER will prepare necessary contract change orders for approval of the OWNER and others on a timely basis.
18. The ENGINEER will make a final review prior to the issuance of the statement of substantial completion of all construction and submit a written report to the OWNER. Prior to submitting the final pay estimate, the ENGINEER shall submit a statement of completion to and obtain the written acceptance of the facility from the OWNER.
19. The ENGINEER will provide the OWNER with one set of reproducible record (as-built) drawings, and two sets of prints at no additional cost to the OWNER. Such drawings will be based upon construction records provided by the contractor during construction and reviewed by the resident inspector and from the resident inspector's construction data.
20. If State statutes require notices and advertisements of final payment, the ENGINEER shall assist in their preparation.
21. The ENGINEER will be available to furnish engineering services and consultations necessary to correct unforeseen project operation difficulties for a period of one year after the date of statement of substantial completion of the facility. This service will include instruction of the OWNER in initial project operation and maintenance but will not include supervision of normal operation of the system. Such consultation and advice shall be furnished without additional charge except for travel and subsistence costs. The ENGINEER will assist the OWNER in performing a review of the project during the 11th month after the date of the certificate of substantial completion.
22. The ENGINEER further agrees to obtain and maintain, at the ENGINEER'S expense, such insurance as will protect the ENGINEER from claims under the Workman's Compensation Act and such comprehensive general liability insurance as will protect the OWNER and the ENGINEER from all claims for bodily injury, death, or property damage which may arise from the performance by the ENGINEER or by the ENGINEER'S employees of the ENGINEER'S functions and services required under this Agreement.
23. The services called for in the Section A-1 and A-2 of this Agreement shall be completed and the report submitted within 30 calendar days from the date of authorization to proceed. After acceptance by the OWNER of the Preliminary Engineering Report and upon written authorization from the OWNER, the ENGINEER will complete final plans, specifications and contract documents and submit for approval of the OWNER and all State regulatory agencies within 30 calendar days from the date of authorization unless otherwise agreed to by both parties.

If the above is not accomplished within the time period specified, this Agreement may be terminated by the OWNER. The time for completion will be extended by the OWNER for a reasonable time if completion is delayed due to unforeseeable causes beyond the control and without the fault or negligence of the ENGINEER.



SECTION B - COMPENSATION FOR ENGINEERING SERVICES

Once the Owner and Engineer have acquired a grant for the project, the OWNER shall compensate the ENGINEER for their services as follows:

1. The OWNER shall compensate the ENGINEER for preliminary engineering services in the sum of ten thousand Dollars (\$ 10,000) after the review and approval of the preliminary engineering report by the OWNER (See Section F).
2. The OWNER shall compensate the ENGINEER for design and contract administration engineering services as shown in Attachment I. When Attachment I is used to establish compensation for the design and contract administration services, the actual construction costs on which compensation is determined shall exclude legal fees, administrative costs, engineering fees, land rights, acquisition costs, water costs, and interest expense incurred during the construction period.
3. The compensation for preliminary engineering services, design and contract administration services shall be payable as follows:
  - (a) ENGINEER shall be paid monthly based on submission of monthly invoices for work completed to date. A sum which equals seventy percent (70%) of the total compensation payable under Section B-1 and 2 shall be paid, after completion and submission of the construction drawings, specifications, cost estimates, and contract documents, and the acceptance of the same by OWNER.
  - (b) A sum which, together with the compensation provided in Section B-3-(a) above, equals eighty percent (80%) of the compensation payable immediately after the construction contracts are awarded.
  - (c) A sum equal to fifteen percent (15%) of the compensation will be paid on a monthly basis for general engineering review of the contractor's work during the construction period on percentage ratios identical to those approved by the ENGINEER as a basis upon which to make partial payments to the contractor(s). However, payment under this paragraph and of such additional sums as are due the ENGINEER by reason of any necessary adjustments in the payment computations will be in an amount so that the aggregate of all sums paid to the ENGINEER will equal ninety-five (95%) of the compensation. A final payment to equal 100 percent shall be made when it is determined that all services required by this Agreement have been completed except for the services set forth in Section A-21 hereof.

SECTION C - COMPENSATION FOR RESIDENT INSPECTION  
AS SET FORTH IN SECTION A- 14

When the ENGINEER provides resident inspection, the ENGINEER will, prior to the preconstruction conference, submit a resume of the resident inspector's qualifications, anticipated duties and responsibilities for approval by the OWNER. The OWNER agrees to pay the ENGINEER for such services in accordance with the schedule set out in Attachment 1. The ENGINEER will render to OWNER for such services an itemized bill, once each month, for compensation for such services performed hereunder during such period, the same to be due and payable by the OWNER to the ENGINEER on or before the 10th day of the following period.

Under normal construction circumstances, and for the proposed construction period of 180 days, the cost of resident inspection is estimated to be \$ 54,000.

## SECTION D - ADDITIONAL ENGINEERING SERVICES

In addition to the foregoing being performed, the following services may be provided UPON PRIOR WRITTEN AUTHORIZATION OF THE OWNER.

1. Site surveys for water treatment plants, sewage treatment works, dams, reservoirs, and other similar special surveys as may be required.
2. Laboratory tests, well tests, borings, specialized geological, soils, hydraulic or other studies recommended by the ENGINEER.
3. Property surveys, detailed description of sites, maps, drawings, or estimates related thereto; assistance in negotiating for land and easement rights.
4. Necessary data and filing maps for water rights, water adjudication, and litigation.
5. Redesigns ordered by the OWNER after final plans have been accepted by the OWNER, except redesigns to reduce the project cost to within the funds available.
6. Appearances before courts or boards on matters of litigation or hearings related to the project.
7. Preparation of environment impact assessments or environmental impact statements.
8. Performance of detailed staking necessary for construction of the project in excess of the control staking set forth in Section A-12.
9. The ENGINEER further agrees to provide the operation and maintenance manual for facilities when required for \$ 10,000.

Payment for the services specified in this Section D shall be as agreed in writing between the OWNER and ENGINEER prior to commencement of the work. Barring unforeseen circumstances, such payment is estimated not to exceed \$ 35,000. The ENGINEER will render to OWNER for such services an itemized bill, separate from any other billing, once each month, for compensation for services performed hereunder during such period, the same to be due and payable by OWNER to the ENGINEER on or before the 10th day of the following period.

## SECTION E - INTEREST ON UNPAID SUMS

If OWNER fails to make any payment due ENGINEER within 60 days for services and expenses and funds are available for the project then the ENGINEER shall be entitled to interest at the rate of Twelve percent per annum from said 60th day, not to exceed an annual rate of 12 percent.

## SECTION F - SPECIAL PROVISIONS

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in duplicate on the respective dates indicated below.

(SEAL)

OWNER:

By Stanley Howard

ATTEST \_\_\_\_\_

Type Name \_\_\_\_\_

Type Name \_\_\_\_\_

Title Mayor

Title \_\_\_\_\_

Date 11-14-03

(SEAL)

ENGINEER: MAYES, SUDDERTH & ETHEREDGE, INC.

By \_\_\_\_\_

ATTEST \_\_\_\_\_

Type Name Glen A. Ross, P.E.

Type Name \_\_\_\_\_

Title President

Title \_\_\_\_\_

Date \_\_\_\_\_

TABLE II - PERCENTAGES FOR ESTABLISHING  
FULL TIME RESIDENT INSPECTION COSTS

<u>NET CONSTRUCTION COST</u>	<u>PERCENTAGE FEE</u>
\$100,000	12.00
200,000	9.40
300,000	7.80
400,000	7.00
500,000	6.40
600,000	5.80
700,000	5.40
800,000	5.00
900,000	4.80
1,000,000	4.60
2,000,000	3.60
3,000,000	3.00
4,000,000	2.70
5,000,000	2.50
6,000,000	2.32
7,000,000	2.20
8,000,000	2.12
9,000,000	2.05
10,000,000	2.00

NOTE: Add two percent to the above Table II percentages for the first \$1,000,000 cost of treatment facilities. Add one percent to the above percentages for all over \$1,000,000 cost of treatment facilities.

GENERAL INFORMATION FOR BASIC AND RESIDENT INSPECTION FEES

The resident inspector will maintain a daily diary meeting FmHA requirements.

Compensation for construction costs between the values listed in the schedule should be determined by interpolation.

If a project is divided into units and all units are authorized for design at the same time, the compensation will be determined by adding together the costs of the construction of the various units and applying the table to the sum of these costs. The initial construction award amount will set the fee percent for project (change orders will not adjust fee percent). For construction inspection, the initial percent times the revised construction cost will create an up-set figure not to be exceeded. If remaining funds are used and additional construction is rebid, the project shall be treated as a new project with new fee percentages.

OWNER City of Salyersville

DATE \_\_\_\_\_

BY (with TITLE) Stan Howard (Mayor)

ENGINEER Mayes, Sudderth & Etheredge, Inc.

DATE \_\_\_\_\_

BY (with TITLE) \_\_\_\_\_ President

SALYERSVILLE CITY COUNCIL  
MINUTES OF MEETING  
DECEMBER 8, 2003

The Salyersville City Council met in regular session on Monday, December 8, 2003, in City Hall. Council members present were Maxie Arnett, Charles Basham, Belsey Connelley, Tex Holbrook, and Kenneth Williams; absent was Tom Frazier. Honorable Stanley Howard, Mayor, called the meeting to order at 7:00 P.M. Belsey Connelley opened the meeting with prayer and Charles Basham led in the Pledge of Allegiance.

A motion was made by Charles Basham to accept the minutes of October 10, 2003, with the following change: "Rescind the action taken concerning entering into a City/County application for CDBG funds to build a new Health Department." The reason for this was that the City had already obligated themselves to the Water Works to apply for funds for a water supply grant. Brenda Powers advised them the County was applying for CDBG funds to make improvements to the Community Center. 50% of the grant funds must be spent before any other applications can be submitted. Maxie Arnett seconded the motion. Vote was unanimous.

A motion was made by Maxie Arnett and seconded by Tex Holbrook to approve payment of the City bills. Vote was unanimous.

Brenda Powers presented the following bills for the Sewer Improvement Project for approval of payment:

Music Construction (Completion Contract 1)	\$135,866.40
E & D (Contract 2)	27,269.11
Music Construction (Contract 3-Division A)	97,037.83
Music Construction (Contract 3-Division B)	61,836.00
E & D (Contract 4A)	-0-
W. Rogers Company (Contract 4B)	134,940.88
Summit Engineering	17,951.37
Michael D. Lyons, Legal Services	28,460.70

A motion was made by Charles Basham to approve payment of all bills presented. Belsey Connelley seconded the motion. Vote was unanimous.

Scott Taylor, representing Mayes, Sudderth & Etheredge, the Engineering firm chosen by the "Request for Qualifications Committee, presented their proposal to Council on what was to be undertaken in the study for a water supply and securing funds to complete the project. This would include lines and storage tanks also.

A Commonwealth of Kentucky Statewide Emergency Management Mutual Aid and Assistance Agreement was presented for approval. A motion was made by Charles Basham and seconded by Kenneth Williams to enter into the Agreement. Vote was unanimous.

Since there are some businesses who are habitually delinquent on paying their payroll taxes, restaurant tax, and motel tax, a motion was made by Charles Basham to send a letter advising each of them of the intent to publish their name in the paper. Both the restaurant tax and motel tax are added to the patron's bill while payroll tax is deducted from employee paychecks. The motion was seconded by Maxie Arnett. Vote was unanimous.

Maxie Arnett made a motion to table any action on the property on West Maple Street since the price has risen to \$30,000 from the original quote. Tex Holbrook seconded the motion. Vote was unanimous.

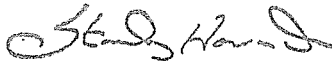
A motion was made by Charles Basham to approve the first reading of an Ordinance annexing territory located on East Mountain Parkway into the city limits. Belsey Connelley seconded the motion. Vote: aye - Charles Basham, Belsey Connelley, Maxie Arnett, Tex Holbrook, and Kenneth Williams.

At the suggestion of the City Attorney, a motion was made by Maxie Arnett to adjourn into Executive Session to discuss pending litigation. Kenneth Williams seconded the motion. Vote was unanimous. No action was taken in closed session.

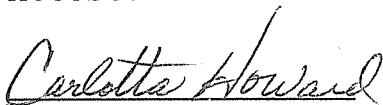
Walter Joe Howard, former Mayor and resident of Coal Branch Road, reported that he had worked twenty years to get blacktop on Coal Branch and upon completion it had been damaged so badly by excavation that six months would have it completely destroyed. James Clayton Patrick who lives near the mouth of the road at 533 Coal Branch Road has removed dirt from his premises and put in three tiles, causing damages to road in that area. It was reported that residents living on Coal Branch Road who walked to Church could not go Sunday due to water standing on the road they would have to wade through. Maxie Arnett said Mr. Patrick advised her that Rick Howard, the person hauling the dirt, was supposed to fix the road back to its original condition. A motion was made by Kenneth Williams to instruct the City Attorney to write a letter to Mr. Patrick and give him a certain number of days in order to make repairs. If not done by the date specified, the work will be done by the City and property owner billed. Mr. Howard advised one or maybe two of the tile he put in must be removed in order to provide proper drainage. Tex Holbrook seconded the motion. Vote was unanimous.

A motion to adjourn was made by Maxie Arnett and seconded by Charles Basham. Vote was unanimous.

City of Salyersville

By   
Stanley Howard  
Mayor

Attest:

  
Carlotta Howard  
City Clerk

MINUTES OF CITY COUNCIL MEETING  
FEBRUARY 14, 2005

The Salyersville City Council met in regular session on Monday, February 14, 2005, in City Hall. Honorable Stanley Howard, Mayor, called the meeting to order at 7:00 P.M. Council members who were present are Maxie Arnett, Charles Basham, Belsey Connelley, Tex Holbrook, Tom Frazier, and Kenneth Williams; there were none absent.

Councilman Belsey Connelley opened the meeting with prayer, followed by Councilman Charles Basham leading the Pledge of Allegiance.

A motion was made by Belsey Connelley to approve the minutes of the previous meeting. Tex Holbrook seconded the motion. Vote was unanimous.

City bills were presented for approval of payment. Kenneth Williams made a motion to pay all bills. Maxie Arnett seconded the motion. Vote was unanimous.

Kevin Howard with Summit Engineers was present and gave a report on the sewer project. Brenda Powers, Project Administrator presented the following bills for payment:

Music Construction Est. 16 B - \$35,315.44  
Music Construction Est. 17 A - 23,035.89

This represents one-half of the total amount owed, with the remaining one-half being retained until the project is finished. Charles Basham made a motion to pay these invoices. Kenneth Williams seconded the motion. Vote was unanimous.

A representative from the Magoffin County Senior Citizens was present and asked the council to approve the city's obligation for funding the "Meals On Wheels" program as in the past. Two proposals were presented. The first proposal was for twelve monthly payments of \$473.00 totaling \$5,676.00 per year; the second was for twelve monthly payments of \$484.00 totaling \$5,808.00 per year beginning before the 10th. day of August, 2005, and being completed on/or by the 10th. day of August, 2006. Charles Basham made a motion to pay \$484.00 per month. Tex Holbrook seconded the motion. Vote was unanimous.

Discussion was held on the Water Storage Tank Project. The Mayor asked for permission to do a procurement for engineering services for this project. Charles Basham made a motion for the city to proceed with procurement. Maxie Arnett seconded the motion. Vote was unanimous.

The next item on the agenda was the appointment of a member to the Salyersville Water Commission. H.C. Prater's term expired on February 7, 2005. The Mayor made a recommendation for the appointment of Jackie Minix to fill this position. After some discussion, Charles Basham made the motion to appoint Jackie Minix to this position. His term will expire on February 7, 2008. Tex Holbrook seconded the motion. Maxie Arnett, Tom Frazier, Kenneth Williams, Charles Basham, and Tex Holbrook voted in favor of the appointment. Belsey Connelley abstained.



The Floodplain Management Ordinance which is required to be adopted prior to March 16, 2005 was presented to council. Without adoption of this ordinance city resident's flood insurance could be suspended. Maxie Arnett made the motion to adopt the ordinance. Charles Basham seconded the motion. Vote Aye: Charles Basham, Maxie Arnett, Tex Holbrook, Tom Frazier, Belsey Connelley, and Kenneth Williams. Vote Nay: None.

Charles Basham made a request for the Salyersville Water Works to submit copies of their bills to the city council for review monthly. This was not done in the form of a motion and no action was taken. Mayor Howard did state that maybe they could submit them quarterly, and Charles Basham stated that he would accept them every two months.

Maxie Arnett made a motion to go into executive session. Tex Holbrook seconded the motion. Vote was unanimous.


After returning from executive session, no action was taken.

Kenneth Williams made a motion to adjourn. Belsey Connelley seconded the motion. Vote was unanimous.

City of Salyersville, Kentucky

By   
Stanley Howard, Mayor

Attest:

  
Carlotta Howard, City Clerk

MINUTES OF THE MEETING  
SALYERSVILLE CITY COUNCIL  
MAY 9, 2005

The Salyersville City Council met Monday, May 9, 2005, for their regularly scheduled monthly meeting. Council members present were Maxie Arnett, Belsey Connelley, Tom Frazier, and Tex Holbrook; absent were Charles Basham and Kenneth Williams. Honorable Stanley Howard, Mayor, was present and called the meeting to order at 7:00 P.M.

Opening prayer was given by Councilman Belsey Connelley followed by the Pledge of Allegiance, led by Councilman Tom Frazier.

A motion was made by Belsey Connelley to approve the minutes of the previous meeting as recorded. Maxie Arnett seconded the motion. Vote was unanimous.

A motion was made by Maxie Arnett to approve payment of the city bills. Tex Holbrook seconded the motion. Vote was unanimous.

Brenda Powers presented bills to be paid from the Sewer Improvement Project account as follows:

Music Construction Company, final payment in the amount of \$58,351.33; also,

Big Sandy ADD Board in the amount of \$104.00, to be paid from tap fees

Tom Frazier made a motion to approve payment. Belsey Connelley seconded the motion. Vote was unanimous.

*It was also reported that remaining funds in the amount of \$51,703.23 had been approved to buy a service truck and a utility truck with a lift for use by the water and sewer department. Bids for this equipment were advertised and the low bid was \$54,274.00, leaving the remaining balance of \$2,570.77 to be paid by the water works.*

In order for our police officers to qualify to receive State Incentive Funds, the city must adopt an Ordinance showing the establishment and organization of the police department. A motion was made by Maxie Arnett to approve the first reading of Ordinance No. 320.1. Tom Frazier seconded the motion. Vote: Aye - Maxie Arnett, Belsey Connelley, Tom Frazier, and Tex Holbrook.

A Resolution was introduced authorizing our police department to enter into the Kentucky Law Enforcement Training Incentive Program. A motion was made by Maxie Arnett to approve. Tex Holbrook seconded the motion. Vote was unanimous.

Mayor Howard informed council that Request For Qualifications for Engineers for the Salyersville Water Works Project (water tanks) had been received and he had appointed a committee to review these qualifications and score the applicants who had applied.

A motion was made by Maxie Arnett and seconded by Tex Holbrook authorizing advertising for bids on the Sewer Line Extension Project. Areas involved in the scope of work would include Lakeville, Will May Branch, Sugar Camp and String Town. Funding for the project at this point is from ARC and Pride. Vote on the motion was unanimous.

The Flood Mitigation Project Committee reported they had met and reviewed engineering proposals for the project. Engineers were graded on certain criteria with a total score of 600 possible. The two companies submitting bids were Summit Engineers, who got a total of 548 points; and, Howard Engineering who received 287 points. Based on the recommendation of this Committee, Maxie Arnett made a motion to employ Summit Engineers for the Project. Tex Holbrook seconded the motion. Vote: Aye - Maxie Arnett,

Tom Frazier, and Tex Holbrook; Belsey Connelley abstained.

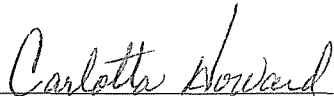
Tex Holbrook said he had received complaints about vehicles parking in front of the bank and at the entrance to Coal Branch Road, hindering the flow of traffic in this area. Also discussed was the problem of workers in the Social Services office taking all the available parking in the downtown area and not using their designated parking area. Police were asked to patrol the parking situation more closely.

A motion to adjourn was made by Belsey Connelley. Maxie Arnett seconded the motion. Vote was unanimous.

CITY OF SALYERSVILLE, KENTUCKY

BY   
STANLEY HOWARD, MAYOR

ATTEST:

  
CARLOTTA HOWARD, CITY CLERK

MINUTES OF THE CITY COUNCIL  
JUNE 13, 2005

The Salyersville City Council met on Monday evening, June 13, 2005, for their regularly scheduled monthly meeting. Honorable Stanley Howard, Mayor, called the meeting to order at 7:00 P.M. Council members present were Maxie Arnett, Charles Basham, Belsey Connelley, Tom Frazier, Tex Holbrook, and Kenneth Williams; there were none absent.

Councilman Belsey Connelley opened the meeting with prayer followed by Councilman Charles Basham leading in the Pledge of Allegiance.

A motion was made by Belsey Connelley to approve the minutes of the previous meeting. Maxie Arnett seconded the motion. Vote was unanimous.

Charles Basham made a motion to approve payment of the City bills. Kenneth Williams seconded the motion. Vote was unanimous.

Next on the agenda was awarding the contract for Phase I of the Sewer Extension Project. A motion was made by Charles Basham to award the contract to Music Construction Company who had submitted the lowest bid in the amount of \$822,218.00. Tom Frazier seconded the motion. Vote was unanimous.

Based upon the recommendation of a review committee who scored qualifications of engineers for the Salyersville Water Works Project (water storage tanks), a motion was made by Maxie Arnett to employ Summit Engineering. Charles Basham seconded the motion. Vote was unanimous.

A second vote was taken on Ordinance No. 320.1, establishing a Police Department. The motion was made by Maxie Arnett and seconded by Tex Holbrook to give final approval. Vote: aye - Maxie Arnett, Charles Basham, Belsey Connelley, Tom Frazier, Tex Holbrook, and Kenneth Williams; nay - none.

Kenneth Williams made a motion to install a street light on pole # 875-170 in the upper end of Dixie near the residences of Charles Puckett and Edith Ellis. Upon a request made by Tex Holbrook he amended the motion to include light installation on a pole located near Denise Gamble's residence at 391 West Maple Street. Tex Holbrook seconded the motion. Vote was unanimous.

A motion was made by Charles Basham and seconded by Maxie Arnett to adjourn into Executive Session. All were in favor.

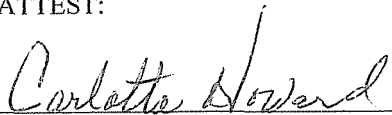
Upon returning into open meeting, a motion was made by Maxie Arnett to adopt Ordinance No. 450.5, "A NON-EXCLUSIVE TELECOMMUNICATIONS AND CABLE TELEVISION ORDINANCE." Charles Basham seconded the motion. Vote: aye - Maxie Arnett, Charles Basham, Belsey Connelley, Tom Frazier, Tex Holbrook and Kenneth Williams; nay - none.

Motion to adjourn was made by Belsey Connelley and seconded by Maxie Arnett. Vote was unanimous.

CITY OF SALYERSVILLE, KENTUCKY

BY   
STANLEY HOWARD, MAYOR

ATTEST:

  
CARLOTTA HOWARD, CITY CLERK

MINUTES OF MEETING  
SALYERSVILLE CITY COUNCIL  
OCTOBER 8, 2007

The Salyersville City Council met in City Hall on Monday, October 8, 2007, for their regularly scheduled monthly meeting,

Honorable Stanley Howard, Mayor, called the meeting to order at 6:00 P.M. The following council members were present: Maxie Arnett, Belsey Connelley, Charles Basham, Ray Nickles, and Tex Holbrook; absent was Kenneth Williams. Also present was City Attorney, Jeffery Lovely.

Councilman Belsey Connelley opened the meeting with prayer. The Pledge of Allegiance was led by Councilman Charles Basham.

Maxie Arnett made a motion to adjourn into Executive Session prior to conducting any official business. Tex Holbrook seconded the motion and all voted aye.

Upon returning into open meeting, the first item on the agenda was approval of the minutes of the previous meeting. A motion was made by Charles Basham to strike the following item from the minutes: page 2, paragraph 1, item # 3: (3) Authorize BSADD to apply for \$300,000 SRF loan. Maxie Arnett seconded the motion. Vote was unanimous. Charles Basham made a motion to approve the minutes with the above deletion. Belsey Connelley seconded the motion. Vote was unanimous.

Maxie Arnett made a motion to approve payment of city bills. Tex Holbrook seconded the motion. Vote was unanimous.

A motion was made by Ray Nickles to amend the Payroll Occupational Tax Ordinance from 1/2 % to 1%. Belsey Connelley seconded the motion. Vote: Aye – Maxie Arnett, Belsey Connelley, Ray Nickles, and Tex Holbrook; nay – Charles Basham. As set forth in the original ordinance, funds collected will be deposited into the General Fund of the City and will be used to defray the general expenses of the city including, but not limited to: Police Department, Fire Department, Streets and Sidewalks, Parks and Recreation, and General City Government.

Next item on the agenda was purchasing the properties lying across from City Hall, more specifically the John Higgins property and Steve Williams property. Mayor Howard reported that the City had Options to Purchase on both of these properties and the Salyersville National Bank had committed to loaning the money at an interest rate comparable to that of any other lending institution. Belsey Connelley made a motion to authorize Mayor Howard to proceed with purchasing the properties and sign documents at the bank and all papers necessary to complete the transaction. Ray Nickles seconded

the motion. Vote: aye – Ray Nickles, Maxie Arnett, and Belsey Connelley; nay – Tex Holbrook and Charles Basham.

A Resolution in support of an application for grant funds for the Renaissance Committee to purchase the old Carpenter building which joins their present headquarters was introduced. Charles Basham made a motion to adopt the Resolution. Tex Holbrook seconded the motion. Vote was unanimous.

Ordinance No. 220.20, adopting the Operating Budget for the Fiscal Year 2007-2008, which had been voted upon in the August meeting, was next on the agenda to receive final vote and enactment. A motion was made by Ray Nickles and seconded by Belsey Connelley to approve. Vote: aye – Maxie Arnett, Charles Basham, Belsey Connelley, Tex Holbrook, and Ray Nickles.

It was unanimously agreed to set “Trick or Treat” night for Wednesday, October 31<sup>st</sup> between the hours of 6 and 8 P.M.

Kevin Howard, City Engineer, presented council with some data they had collected concerning the water shortage and possible options for solution to the problem. He advised that geological studies had been made by the University of Kentucky which located water sources throughout the county. At the present time, they are working closely with Water Works personnel and the Division of Water in coming up with the most feasible plan for Salyersville and Magoffin County.

Tex Holbrook asked for additional patrol to be done on parking near the entrance to the Community Center and Coal Branch Road. Mayor Howard advised him to make a list of areas involved and “no parking” spots would be designated at the next meeting.

Ray Nickles made a motion to adjourn. Belsey Connelley seconded the motion. Vote was unanimous.

CITY OF SALYERSVILLE, KY

BY   
MAYOR

ATTEST:

  
CITY CLERK

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN INVESTIGATION INTO THE ADEQUACY OF )  
THE WATER SUPPLY OF MAGOFFIN COUNTY ) CASE NO. 2008-00443  
WATER DISTRICT )

COMMISSION STAFF'S FIRST SET OF INTERROGATORIES  
AND REQUESTS FOR PRODUCTION OF DOCUMENTS TO  
MAGOFFIN COUNTY WATER DISTRICT

Pursuant to Administrative Regulation 807 KAR 5:001, Commission Staff requests that Magoffin County Water District ("Magoffin District") file the original and 6 copies of the following information with the Commission no later than December 10, 2008, with a copy to all parties of record.

Responses to requests for information shall be appropriately bound, tabbed and indexed and shall include the name of the witness responsible for responding to the questions related to the information provided.

Each response shall be answered under oath or shall be accompanied by a signed certification of the preparer or person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person's knowledge, information, and belief formed after a reasonable inquiry.

Magoffin District shall make timely amendment to any prior responses if it obtains information which indicates that the response was incorrect when made or, though correct when made, is now incorrect in any material respect. For any requests to which Magoffin District fails or refuses to furnish all or part of the requested information, it shall



provide a written explanation of the specific grounds for its failure to completely and precisely respond.

Careful attention should be given to copied material to ensure that it is legible. When the requested information has been previously provided in this proceeding in the requested format, reference may be made to the specific location of that information in responding to this request. When applicable, the requested information shall be separately provided for total company operations and jurisdictional operations.

1. Identify the persons who prepared and are responsible for Magoffin District's Response to the Commission's Order of October 17, 2008.

2. Provide a map of Magoffin District's water distribution system at a scale of at least one inch equals two miles, marked to show Magoffin District's distribution system. This map shall show pipeline sizes, locations, and connections as well as pumps, water storage tanks, and sea level elevation points.

3. Describe Magoffin District's existing water storage capacity. For each storage facility, state:

- a. Location;
- b. Maximum capacity; and
- c. Type (e.g., standpipe, elevated, clearwell).

4. Provide the findings and reports of all studies that Magoffin District has commissioned, prepared, or been involved in that address the adequacy of Magoffin District's water supply.

5. Provide the findings and reports of all studies that Magoffin District has commissioned, prepared, or been involved in that address the adequacy of Magoffin District's water facilities.

6. a. List each interconnection that Magoffin District presently has with other water distribution systems.

b. For each interconnection, state the capacity of the interconnection (in gallons per day) and whether Magoffin District has a contract to purchase water through the interconnection.

c. For each interconnection for which Magoffin District presently has a contract to purchase water, provide a copy of that contract.

7. a. List all water distribution systems for which Magoffin District has considered or studied the possibility of an interconnection.

b. For each system listed:

(1) Describe the actions that Magoffin District undertook to study a possible interconnection.

(2) Provide a copy of all correspondence and other communication with the system in which interconnection was discussed.

(3) If Magoffin District determined that an interconnection was not feasible or practical, state the reasons for this determination.

8. a. State whether Magoffin District has had any discussions with Paintsville Utilities Commission ("PUC") since January 1, 2003 regarding the purchase of water on a regular, non-emergency basis.

b. If yes, describe each of these discussions.

9. Provide all correspondence and written communications, including electronic mail messages, between Magoffin District and PUC in which the purchase of water was discussed.

10. Provide a copy of the present water supply contract between the city of Salyersville ("Salyersville") and Magoffin District.

11. Refer to Magoffin District's Response to the Commission's Order of October 17, 2008, Item 2. Identify the source of information for this response and explain how Magoffin District derived this response.

12. State the date, duration and reason for each boiled water advisory that Magoffin District has issued since January 1, 2003.

13. Provide a copy of Magoffin District's water shortage response plan.

14. a. State each time period since January 1, 1996 during which Magoffin District implemented water restrictions.

b. For each time period listed:

(1) State the reason for implementing water restrictions; and

(2) State the customer classes (e.g., retail, wholesale) that were subject to the restrictions.

15. Provide a copy of the most current resolution of Magoffin District's Board of Commissioners related to water shortage response and water rationing.

16. State whether Magoffin County Fiscal Court has adopted an ordinance to enforce the provisions of any water shortage response plan that Magoffin District has developed.

17. a. State whether Magoffin District has formally accepted and agreed to implement Salyersville's water shortage response plan.

b. State the date of Magoffin District's acceptance and agreement.

c. Provide a copy of all written documents in which Magoffin District stated its acceptance and agreement to Salyersville's water shortage response plan.

18. a. State whether the contract between Magoffin District and PUC, which was entered on May 18, 2008, has been filed with the Commission.

b. Describe the efforts that Magoffin District has undertaken to ensure that the contract between Magoffin District and PUC, which was entered on May 18, 2008, has been filed with the Commission.

19. State whether Magoffin District has contracts for the purchase of water from wholesale suppliers other than Salyersville and PUC. If yes, identify these suppliers.

20. a. State whether Magoffin District is aware of the Regional Emergency Water Interconnection Plan ("Water Interconnection Plan") that Big Sandy Area Development District issued in April 2005.

b. If yes, state the actions, if any, that Magoffin District took in response to the findings and recommendations contained in the Water Interconnection Plan.

21. a. State whether Magoffin District's representatives or employees participated in preparation of the Water Interconnection Plan.

b. If yes, identify each representative or employee and his or her involvement in the plan's preparation.

22. a. State whether Magoffin District has ever purchased water from PUC.

b. If Magoffin District has previously purchased water from PUC:

(1) Provide Magoffin District's total annual purchases from PUC for each year since 1996.

(2) State the reasons why Magoffin District ceased purchasing water from PUC.

23. Describe the purpose and the current status of WRIS Project WX21153022 for which Magoffin District has sought funding from the Kentucky Infrastructure Authority.

24. Provide the minutes of each meeting of Magoffin District's Board of Commissioners since January 1, 2003 in which the adequacy of Magoffin District's water supply was discussed.

25. Provide the minutes of each meeting of Magoffin District's Board of Commissioners since January 1, 2003 in which potential water supply agreements with suppliers other than Salyersville were discussed.

26. a. Describe the actions, if any, that Magoffin District took to request and obtain Executive Order 2008-001056, which announced a state of emergency in Magoffin County.

b. Provide a copy of all correspondence and other written communications, including electronic mail messages, which Magoffin District officials sent or received from state officials discussing a declaration of a state of emergency.

27. Provide a copy of the most recent version of the water supply plan for Magoffin County.

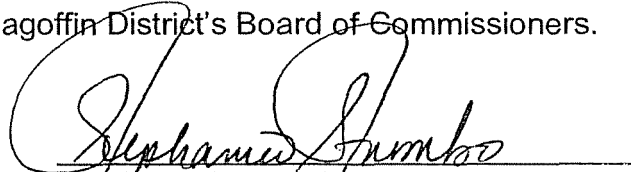
28. Provide a copy of each bill that Magoffin District has received from Salyersville for water service since January 1, 2003.

29. List and explain each of the criteria that Magoffin District will use to determine if purchases of water from PUC should be made.

30. a. Identify the person(s) responsible for the planning and operation of Magoffin District's water distribution system. For each person listed, state his or her position with Salyersville.

b. Identify the person(s) responsible for the negotiation of water supply contracts on behalf of Magoffin District. For each person listed, state his or her position with Salyersville.

31. List the current members of Magoffin District's Board of Commissioners.

  
Stephanie L. Stumbo  
Executive Director  
Public Service Commission  
211 Sower Boulevard  
P.O. Box 615  
Frankfort, Kentucky 40602

DATED: NOVEMBER 26, 2008

cc: Parties of Record

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN INVESTIGATION INTO THE ADEQUACY OF )  
THE WATER SUPPLY OF MAGOFFIN COUNTY ) CASE NO. 2008-00443  
WATER DISTRICT )

ORDER

Having reviewed the responses of Magoffin County Water District ("Magoffin District"), the city of Salyersville ("Salyersville"), and the Kentucky Division of Water ("DOW") to the Commission's Order of October 17, 2008, and finding significant differences in their assessment of the adequacy of Magoffin District's water supply, the Commission, on its own motion, HEREBY ORDERS that:

1. A hearing shall be held on the adequacy of Magoffin District's water supply on December 16, 2008, beginning at 10:00 a.m., Eastern Standard Time, in the Commission's offices at 211 Sower Boulevard, Frankfort, Kentucky.
2. Any corporate or governmental entity that is not represented by a licensed attorney at the scheduled hearing will not be permitted to present argument, make objections, or examine any witnesses.<sup>1</sup>

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<sup>1</sup> The Commission has previously held that the representation of a governmental entity before the Commission is the practice of law and requires an attorney. *See* Administrative Case No. 249, Practice Before the Commission by Attorneys Non-Licensed in the Commonwealth of Kentucky (Ky. PSC June 15, 1981) at 2; Case No. 2004-00348, Howard Keen v. Carroll County Water District #1 (Ky. PSC Oct. 15, 2004). We note that no attorney has entered an appearance on behalf of Magoffin District, Salyersville or DOW. Each of these parties has submitted written responses to the Commission's Order of October 17, 2008 that were not signed by an attorney. By this Order, we place each on notice that they are expected to comply with this requirement in this proceeding.

3. At the scheduled hearing, Magoffin District, Salyersville, and DOW shall present testimony and answer questions on the adequacy of Magoffin District's water supply.

4. On or before December 10, 2008, Magoffin District, Salyersville, and DOW shall each file with the Commission an original and 6 copies of the prepared written testimony of each witness that it intends to call at the scheduled hearing.

5. Any other party desiring to present testimony at the scheduled hearing shall, on or before December 10, 2008, file with the Commission an original and 6 copies of the prepared written testimony of each witness that it intends to call at the scheduled hearing.

6. The prepared written testimony shall be in the following format:

a. Written testimony shall be accompanied by a cover sheet showing the case caption and case title, the person testifying, and the party for whom the testimony is offered.

b. The first page of prepared testimony shall contain testimony only and shall not repeat the information on the cover page.

c. Prepared testimony shall be submitted on white eight and one-half by eleven inch (8-1/2" x 11") paper and be double-spaced (except for quoted material and tables or other collections of numerical data).

d. Each line of prepared testimony shall be numbered at the left margin (except single-spaced quotations or tables of numerical data, which may be numbered at the left margin as though they were double spaced).

e. All exhibits accompanying the prepared testimony shall be labeled.



f. The prepared written testimony shall be made under oath and shall be signed by the witness who is giving the testimony.

7. At the scheduled hearing in this matter, each party shall limit the length of its opening and closing statements to no more than 10 minutes.

8. Direct examination of witnesses who present written prepared testimony shall be generally limited to the authentication and adoption of that written testimony. A witness may briefly summarize his or her written testimony, but such summarization shall not exceed 10 minutes in length.

9. The restrictions set forth in Ordering Paragraph 8 shall not apply to witnesses who testify under subpoena and are not affiliated with the party that has called the witness.

10. No later than December 10, 2008 each party and Commission Staff shall file with the Commission a list of the persons who it expects to call as witnesses at the scheduled hearing.

11. A telephone conference call shall be held on December 12, 2008 at 11:00 a.m., Eastern Standard Time, to clarify and discuss procedural issues related to the scheduled hearing. Commission Staff shall make the arrangements for such conference call and shall provide an agenda for such conference in advance of the conference call.

12. The Commission does not favor motions for continuance or extensions of time and will grant them only when such a motion is made in writing and states compelling reasons for granting the motion.

13. All documents that are filed with the Commission in this matter shall be served upon all other parties.

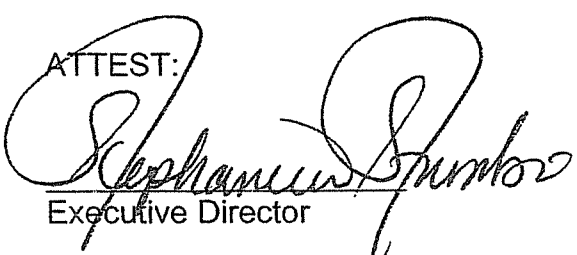
14. Service of any document or pleading shall be made in accordance with 807 KAR 5:001, Section 3(7), and Kentucky Civil Rule 5.02.

15. Magoffin District shall give notice of the time, place, and purpose of the scheduled hearing in this matter in a newspaper of general circulation in all areas in which it provides water service one time not less than 7 nor more than 21 days prior to the hearing.

Done at Frankfort, Kentucky, this 24<sup>th</sup> day of November, 2008.

By the Commission

ATTEST:

  
Executive Director

Case No. 2008-00443



# City of Salyersville

SALYERSVILLE, KENTUCKY 41465-0640  
606/349-2409  
FAX 606/349-2449



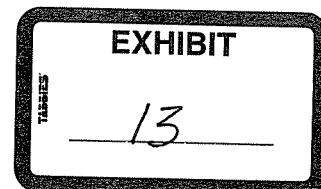
October 9, 2008

The Honorable Steve Beshear  
Governor, Commonwealth of Kentucky  
The Capitol  
Frankfort, Kentucky 40601

Dear Governor Beshear:

This is to advise you that the City of Salyersville is experiencing a devastating drought that began on or about August 27<sup>th</sup>, 2008. This drought, if it continues, will result in the Salyersville Water Works being unable to supply water to the City of Salyersville residents and to the Magoffin County Water District. The Salyersville Water Works are currently pumping water from the Licking River and two drilled wells. Over the past 48 hours the quality of water has continued to deteriorate due to the lack of water in the river and wells. A boil water advisory has been in effect county wide for the past 48 hours. If we do not receive a substantial amount of rain, at least 3 inches, within three to four days we will be unable to furnish water. This lack of water has the potential of causing much panic throughout the county resulting in unforeseen consequences. We are asking for two things, a short term solution to our financial situation described below and financial assistance for a long term solution so that this crisis will not happen again. Attached is a list of three solutions with cost estimates.

We have been working with the Division of Water and the US Army Corps of Engineers concerning dredging the Licking River so as to break the sand bars loose to release pools of water to flow downstream to our pump station. We began dredging the river on September 25, 2008 after I, the mayor, and the county judge executive declared a State of Emergency for Salyersville and Magoffin County. On this date we received verbal permission from the Division of Water to enter the river with equipment to release some large pools of water that was blocked by trees and other debris. We are now in violation of code 404 and are being asked by the US Army Corps of Engineers to remove the debris from the river. We are already in a financial hardship due to the increase in chemicals needed to treat the water, man power and equipment. The cost of the equipment, man power, and other resources needed to correct the code 404 violation would be an undue financial burden on the Salyersville Water Works and City of



Salyersville. We request assistance from the state to correct this code violation as that we are unable to financially correct this violation in this time of crisis.

We are now planning for the worst and hoping for the best. We have exhausted all means of any immediate resolution for the water shortage. I will reiterate, without rain we will be unable to furnish water. We have begun the planning process of a county wide water shortage. We are in the process of contacting drinking water distribution centers and organizations. We have also developed a plan of distribution, to distribute drinking water if our water supply does run out.

The change in climate continues to affect the water supply in the Licking River, which is our main source of water. Although we are in a time of crisis and in need of immediate assistance, I feel that a long term solution must be addressed. Please see attachment.

I have expended the maximum amount of equipment, time and personnel effort that the City of Salyersville is capable of providing to alleviate the crisis and now find that the situation is beyond the capability of the City of Salyersville for adequate response. A State of Emergency was declared on September 25, 2008.

As a consequence, I have declared, under KRS Chapter 39, that a State of Emergency exists in Salyersville and request assistance from the state as detailed on the attached Water Supply Project.

Sincerely,



---

Stanley Howard, Mayor  
City of Salyersville



Charles Hardin  
Magoffin Co. Judge Executive

The Salyersville Emergency Water Supply Improvement Project is organized as the following worksheets:

<b>Work Sheet ID Number</b>	<b>Exhibit ID Number</b>	<b>Alternate Title</b>
1		Summary of Alternates
2	A	Pro / Con Analysis
3	B	Summary of Alternate Costs
4	C	Finished Water Augmentation -- Emergency Interconnect -- Route 40
5	D	Finished Water Augmentation -- Long Term Interconnect -- Route 40
6	E	Raw Water Supply -- Mine Fork Quarry Pump & Line
7	F	Raw Water Supply -- Well Field Improvements
8	G	Raw Water Supply -- Licking River Dredge/Hook/Snag Project

EXHIBIT B  
 PRO CON ANALYSIS OF ALTERNATES  
 SALYERSVILLE EMERGENCY WATER SUPPLY PROJECT

10/9/2008

Summary - A long term tie on Rt 40 leaves the community at the mercy of Paintsville Utilities with regard to cost of water.

If the Quarry at Mine Fork could be acquired (and proven with regards to quantity/quality) it could provide the community with a reliable, long term water supply. However, this is the most expensive of all of the alternates considered.

Expanding the well field may be a compromise between these two alternates. However, well fields are not certain. When subjected to long term pumping -- the waters of a well field may change dramatically in quality!

PRO	CON
<b>Finished Water - Emergency Tie on Route 40 (Exhibit C)</b>	
1. Can be achieved quickly	1. Incomplete solution. Will only provide about 19% of daily need
<b>Finished Water - Long Term Tie on Route 40 (Exhibit D)</b>	
1. Could be a complete backup if Paintsville strengthened their grid!	1. Paintsville wants too much for wholesale water supply. 2. Until Paintsville has new plant on line -- Paintsville really does not have the water to sell.
<b>Raw Water Supply -- Mine Fork Quarry Pump &amp; Line (Exhibit E)</b>	
1. Could potentially provide all of the raw water needs for the foreseeable future -- even in drought.	1. Need a study to determine yield (drawdown vs. pump rate). 2. Need a study to assess quality of water (could be degraded by old equipment submerged in mine) 3. Site is privately held! May not be able to acquire site. 4. Capital cost - very expensive
<b>Raw Water Supply -- Well Field Improvements (Exhibit F)</b>	
1. Could potentially meet the raw water needs of the community in drought 2. Reasonable cost to supply	1. No guarantee that wells will yield desired flow 2. No guarantee that well water will be suitable for treatment. Possible high sodium. 3. Long term pumping of well field may exhaust ground water supply and/or pull low quality ground waters into aquifer. 4. Maintenance costs for maintaining equipment used infrequently (only in time of drought).
<b>Raw Water Supply -- Licking River Dredge/Hook/Snag Project (Exhibit G)</b>	
	1. Recurring expense. Rivers quickly reclaim 'improved' channels 2. Will improve storage but very difficult to quantify improved yield.

EXHIBIT B  
SUMMARY OF COSTS BY ALTERNATE  
SALYERSVILLE EMERGENCY WATER SUPPLY PROJECT

10/9/2008

ITEM NO.	ITEM DESCRIPTION	AMOUNT
1	<b>ALTERNATE 1</b>	
	Finished Water Augmentation -- Emergency Interconnect -- Route 40	\$ 264,762.15
2	<b>ALTERNATE 2</b>	
	Finished Water Augmentation -- Long Term Interconnect -- Route 40	\$ 917,067.99
3	<b>ALTERNATE 3</b>	
	Raw Water Supply -- Mine Fork Quarry Pump & Line	\$ 3,492,980.96
4	<b>ALTERNATE 4</b>	
	Raw Water Supply -- Well Field Improvements	\$ 884,183.98
5	<b>ALTERNATE 5</b>	
	Raw Water Supply -- Licking River Dredge/Hook/Snag Project	\$ 52,500.00



EXHIBIT 'C'  
ENGINEERS OPINION OF PROBABLE PROJECT COST  
FINISHED WATER AUGMENTATION  
EMERGENCY INTERCONNECT -- ROUTE 40  
10/9/2008

Item	Item	Quantity	Unit	Unit Price	Amount
A	<b>Construction Costs</b>				
1	Mobilization/Demobilization (Note 1)	1	LS	\$ 5,000.00	\$ 5,000.00
2	Construction Staking (Structures Only)	1	LS	\$ 2,000.00	\$ 2,000.00
3	Seeding and Cleanup (Note 2)	1	LS	\$ 1,250.00	\$ 1,250.00
4	Connect to Existing Water Line	1	EA	\$ 2,750.00	\$ 2,750.00
5	Master Meter Station	1	EA	\$ 35,000.00	\$ 35,000.00
6	200 gpm Water Booster Pump Station	1	EA	\$ 80,000.00	\$ 80,000.00
7	Solenoid Valve at State Road Booster Pump	1	EA	\$ 35,000.00	\$ 35,000.00
8	Fire Hydrant/Blow off	1	EA	\$ 3,000.00	\$ 3,000.00
9	Telemetry RTU for new booster pump and master meter	1	EA	\$ 17,500.00	\$ 17,500.00
	<b>SUBTOTAL FOR CONSTRUCTION</b>				<b>\$ 181,500.00</b>
	Contingency @ 10%				\$ 18,150.00
	Estimated Construction Cost				<b>\$ 199,650.00</b>
B	Basic Engineering @	12.20%	Percent		\$ 24,357.30
C	Additional Engineering				NONE
D	Resident Inspection @	10.40%	Percent		\$ 20,763.60
E	Other				
	BSADD Grants Assist @ 2.50%				\$ 4,991.25
	Right of Way/Easements/Etc.				\$ 10,000.00
	Miscellaneous				\$ 5,000.00
	<b>TOTAL PROJECT COST</b>				<b>\$ 264,762.15</b>

Note 1: Mobilization/Demobilization estimated 3.0%

Note 2: Seeding and Cleanup estimated at \$0.25 per linear foot of line to be constructed.

EXHIBIT 'D'  
 ENGINEERS OPINION OF PROBABLE PROJECT COST  
 FINISHED WATER AUGMENTATION  
 LONG TERM INTERCONNECT -- ROUTE 40  
 WX21153516  
 10/9/2008

Item	Item	Quantity	Unit	Unit Price	Amount
A	<b>Construction Costs</b>				
1	Mobilization/Demobilization (Note 1)	1	LS	\$ 20,000.00	\$ 20,000.00
2	Construction Staking (Structures Only)	1	LS	\$ 3,750.00	\$ 3,750.00
3	Seeding and Cleanup (Note 2)	1	LS	\$ 7,500.00	\$ 7,500.00
4	Special Pipe Bedding	200	Ton	\$ 20.00	\$ 4,000.00
5	Connect to Existing Water Line	4	EA	\$ 2,750.00	\$ 11,000.00
6	8" PVC, SDR 17 Water Line	13500	EA	\$ 25.00	\$ 337,500.00
7	8" Resilient Wedge Gate Valve, MJ	16	EA	\$ 1,700.00	\$ 27,200.00
8	Master Meter Station	1	EA	\$ 35,000.00	\$ 35,000.00
9	550 gpm Water Booster Pump Station	1	EA	\$ 80,000.00	\$ 80,000.00
10	Upgrade Existing Paintsville Water Booster Pump Station	1	EA	\$ 45,000.00	\$ 45,000.00
11	Solenoid Valve at State Road Booster Pump	1	EA	\$ 35,000.00	\$ 35,000.00
12	Air Release	4	EA	\$ 1,500.00	\$ 6,000.00
13	Fire Hydrant/Blow off	6	EA	\$ 3,000.00	\$ 18,000.00
14	Telemetry RTU for new booster pump and master meter	2	EA	\$ 17,500.00	\$ 35,000.00
	<b>SUBTOTAL FOR CONSTRUCTION</b>				<b>\$ 664,950.00</b>
	Contingency @ 10%				\$ 66,495.00
	Estimated Construction Cost				<b>\$ 731,445.00</b>
B	Basic Engineering @	9.40% Percent			\$ 68,755.83
C	Additional Engineering				
	Aerial Mapping & Ground Control				\$ 10,000.00
	Environmental				\$ 7,500.00
	<b>Subtotal Additional Engineering</b>				<b>\$ 17,500.00</b>
D	Resident Inspection @	6.30% Percent			\$ 46,081.04
E	Other				
	BSADD Grants Assist @ 2.50%				\$ 18,286.13
	Right of Way/Easements/Etc.				\$ 10,000.00
	Bond Council, Legal, Interim Interest, etc.				\$ 25,000.00
	<b>TOTAL PROJECT COST</b>				<b>\$ 917,067.99</b>

Note 1: Mobilization/Demobilization estimated 3.0%  
 Note 2: Seeding and Cleanup estimated at \$0.25 per linear foot of line to be constructed.

EXHIBIT 'E'  
 ENGINEERS OPINION OF PROBABLE PROJECT COST  
 RAW WATER SUPPLY  
 MINE FORK QUARRY PUMP & LINE  
 10/9/2008

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1	<b>GENERAL</b>				
1a	Mobilization/Demobilization	LS	1	\$ 60,000.00	\$ 60,000.00
1b	Seeding	LS	1	\$ 14,500.00	\$ 14,500.00
2	<b>CONNECTIONS</b>				
2a	Connect to Rapid Mix Basin	LS	1	\$ 2,000.00	\$ 2,000.00
3	<b>WATER LINE</b>				
3a	10" PVC Raw Water Line, SDR 17	LF	59,000	\$ 25.00	\$ 1,475,000.00
4	<b>VALVES &amp; METERS</b>				
4a	10" Resilient Wedge Gate Valve MJ, 150	EA	10	\$ 2,250.00	\$ 22,500.00
4b	8" Mag Meter in pit w isolation valves	EA	1	\$ 12,500.00	\$ 12,500.00
5	<b>PUMP STATION</b>				
5a	1400 GPM duplex vertical turbine pump station, barge mounted in quarry pit, complete, in service	LS	1	\$ 200,000.00	\$ 200,000.00
6	<b>ENCASEMENTS</b>				
6a	Bore and Encase for 10" Water Line	LF	300	\$ 175.00	\$ 52,500.00
7	<b>HYDRANTS</b>				
7a	Hydrants for blow offs	EA	4	\$ 4,000.00	\$ 16,000.00
8	<b>TANK &amp; ACCESSORIES</b>				
8a	500,0000 gallon AWWA D103 factory glass coated steel, bolted water storage tank w concrete foundation & aluminium dome roof	LS	1	\$ 590,000.00	\$ 590,000.00
8b	Excavation of tank site & access road	LS	1	\$ 50,000.00	\$ 50,000.00
8c	PreCast Concrete Valve pit w 10" plumbing	LS	1	\$ 40,000.00	\$ 40,000.00
8d	Telemetry RTU compatible w City system	LS	1	\$ 15,000.00	\$ 15,000.00
8e	Chain Link Security Fence	LS	1	\$ 8,000.00	\$ 8,000.00
<b>SUBTOTAL FOR CONSTRUCTION</b>					<b>\$ 2,558,000.00</b>
Contingency @ 10%					\$ 255,800.00
Estimated Construction Cost					<b>\$ 2,813,800.00</b>
A	Preliminary Study & Report (Pump Test & Quality Tests of Quarry)				\$ 15,000.00
B	Basic Engineering @	7.30% Percent			\$ 205,407.40
C	Additional Engineering				
	Aerial Mapping & Ground Control				\$ 15,000.00
	Environmental				\$ 7,500.00
	<b>Subtotal Additional Engineering</b>				<b>\$ 22,500.00</b>
D	Resident Inspection @	4.12% Percent			\$ 115,928.56
E	Other				
	BSADD Grants Assist @ 2.50%				\$ 70,345.00
	Right of Way --- Purchase Quarry				\$ 200,000.00
	Bond Council, Legal, Interim Interest, etc.				\$ 50,000.00
<b>TOTAL PROJECT COST</b>					<b>\$ 3,492,980.96</b>

Note 1: Mobilization/Demobilization estimated 3.0%

Note 2: Seeding and Cleanup estimated at \$0.25 per linear foot of line to be constructed.

EXHIBIT E  
ENGINEER'S OPINION OF PROBABLE PROJECT COST  
RAW WATER SUPPLY  
WELL FIELD IMPROVEMENTS & RAW WATER LINE  
10/9/2008

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Summary of Alternates Pro / Con Analysis
1	<b>GENERAL</b>				
a	Mobilization (3%)	LS	1	\$ 22,000.00	\$ 22,000.00
2	<b>WELL # 1 (NOTE 1)</b>				
a	Pilot Well to Prove Aquifer	LS	1	\$ 15,000.00	\$ 15,000.00
b	Production Well With Pump, Complete and In-Service	LS	1	\$ 200,000.00	\$ 200,000.00
c	Additional Well Depth	VF		\$ 50.00	\$ -
d	6-inch, PVC SDR 11, Dishcharge Line Connecting Well & Existing Raw Water Line	LF	525	\$ 17.00	\$ 8,925.00
3	<b>WELL # 2 (NOTE 1)</b>				
a	Pilot Well to Prove Aquifer	LS	1	\$ 15,000.00	\$ 15,000.00
b	Basic Well With Pump, Completed, Tested and In-Service	LS	1	\$ 200,000.00	\$ 200,000.00
c	Additional Well Depth	VF		\$ 50.00	\$ -
4	<b>460 RAW WATER LINE</b>				
a	6" Raw Water Line, PVC SDR 17	LF	5,400	\$ 17.00	\$ 91,800.00
b	8" Raw Water Line, PVC SDR 18	LF	3,340	\$ 21.00	\$ 70,140.00
c	6" Resilient Wedge Gate Valve MJ, 250	LF	4	\$ 1,500.00	\$ 6,000.00
d	8" Resilient Wedge Gate Valve MJ, 250	LF	3	\$ 1,750.00	\$ 5,250.00
e	Bore and Encase for 6" Water Line	LF	50	\$ 200.00	\$ 10,000.00
e	Bore and Encase for 8" Water Line	LF	50	\$ 225.00	\$ 11,250.00
f	Connect to Existing Wet Well	LS	1	\$ 2,500.00	\$ 2,500.00
g	Seeding and Cleanup	LS	1	\$ 3,000.00	\$ 3,000.00
	<b>SUBTOTAL CONSTRUCTION COSTS</b>				\$ 660,865.00
h	Construction Contingencies	LS	10.00%		\$ 66,086.50
	<b>PROBABLE CONSTRUCTION COST</b>				\$ 726,951.50
	Right of Way/Easements	LS	1	\$ 5,000.00	\$ 5,000.00
	Legal/Permits/Interim Interest/Notices/Etc.	LS	1	\$ 20,000.00	\$ 20,000.00
	BSADD Admin Fees	LS	2.50%	\$ 18,173.79	\$ 18,173.79
	Basic Engineering		9.39%	\$ 68,260.75	\$ 68,260.75
	Resident Inspection	LS	6.30%		\$ 45,797.94
	<b>PROBABLE PROJECT COST</b>				\$ 884,183.98

Notes:

1 Based on Production Well 400 feet in depth. Full length cased!

EXHIBIT G  
ENGINEER'S OPINION OF PROBABLE PROJECT COST  
RAW WATER SUPPLY  
DREDGING OF THE LICKING RIVER  
10/9/2003

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Summary of Alternates Pro / Con Analysis
<i>1</i>	<i>Basic Unit Costs</i>				
<i>a</i>	<i>Excavator</i>	<i>HR</i>	<i>1</i>	<i>\$ 100.00</i>	<i>\$ 100.00</i>
<i>b</i>	<i>Tandem Axle Dump</i>	<i>HR</i>	<i>1</i>	<i>\$ 45.00</i>	<i>\$ 45.00</i>
<i>c</i>	<i>Labor/Driver</i>	<i>HR</i>	<i>1</i>	<i>\$ 20.00</i>	<i>\$ 20.00</i>
<i>2</i>	<i>Crew Per Hour</i>				
<i>a</i>	<i>3 Laborer/Drivers</i>	<i>HR</i>	<i>1</i>	<i>\$ 60.00</i>	<i>\$ 60.00</i>
<i>b</i>	<i>1 Excavator</i>	<i>HR</i>	<i>1</i>	<i>\$ 100.00</i>	<i>\$ 100.00</i>
<i>c</i>	<i>2 Trucks</i>	<i>HR</i>	<i>1</i>	<i>\$ 90.00</i>	<i>\$ 90.00</i>
<i>3</i>	<i>Estimate 40 / Hrs per Mile --- 5.0 Mile Clean up</i>				
<i>a</i>	<i>Cleanout Crew</i>	<i>HR</i>	<i>200</i>	<i>\$ 250.00</i>	<i>\$ 50,000.00</i>
<i>b</i>	<i>Permitting</i>	<i>LS</i>	<i>1</i>	<i>\$ 2,500.00</i>	<i>\$ 2,500.00</i>
	<b>PROBABLE PROJECT COST</b>				<b>\$ 52,500.00</b>

# Fax

To: General Heltzel From: Mayor

Fax: 502-607-1614 Pages: 11

Phone: \_\_\_\_\_ Date: 10-9-08

Re: \_\_\_\_\_ CC: \_\_\_\_\_

- Urgent     For Review     Please Comment     Please Reply     Please Recycle

Comments: \_\_\_\_\_

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STEVEN L. BESHEAR  
GOVERNOR

EXECUTIVE ORDER

2008-1056  
October 10, 2008

Secretary of State  
Frankfort  
Kentucky

STATE OF EMERGENCY

WHEREAS, the Commonwealth has experienced severe rainfall shortages in 2007 and 2008, which condition has led to severe and extreme drought in both years, low stream flows, depleted lakes and ponds, reduced flow from springs and a lowered groundwater table; and

WHEREAS, extreme drought conditions have now developed in Magoffin County and caused flows to cease in the headwaters of the Licking River which serves as a primary source of public water supply for the city of Salyersville and Magoffin County Water District; and

WHEREAS, public water supply in Magoffin County now relies on two wells that are not capable of meeting the current demand for public water supply in Magoffin County; and

WHEREAS, these conditions endanger the public health and safety and threaten the public welfare of the citizens of Magoffin County; and

WHEREAS, this threat requires the conservation and efficient use of the remaining sources of public water supply and pursuit of alternative sources of public water supply to address both the immediate condition and prevent future threats to public health and safety;

NOW, THEREFORE, I, Steven L. Beshear, Governor of the Commonwealth of Kentucky, under the authority vested in me by Kentucky Constitution Sections 69 and 81 and by Kentucky Revised Statutes 39A.010, 39A.050, 39A.090, 39A.100, and 151.200, do hereby ORDER and DECLARE that a state of water emergency exists in Magoffin County, Kentucky within the watershed of the Licking River, from the headwaters to the intersection of the Licking River and Morgan County line, and do hereby ORDER and DIRECT that until such time as these water emergency conditions are relieved:



STEVEN L. BESHEAR  
GOVERNOR

EXECUTIVE ORDER

2008-1056  
October 10, 2008

Secretary of State  
Frankfort  
Kentucky

1. The Energy and Environment Cabinet shall direct the Mayor of the City of Salyersville and Judge Executive of Magoffin County to take every action necessary within their jurisdictions to stop all nonessential uses of water and to restrict the essential usage by all users to that which is necessary to ensure the health, welfare and safety of the public.
2. The Energy and Environment Cabinet, the Cabinet for Health and Family Services and the Public Service Commission shall take every action necessary to prevent a complete loss of public water supply from occurring in the city of Salyersville and Magoffin County. These actions may include, but are not limited to, a temporary restriction on the rate of water withdrawal by Salyersville Municipal Water, providing technical guidance and support for water supply and water treatment issues and other actions as needed.
3. All open burning within Magoffin County is prohibited unless first approved by the Energy and Environment Cabinet.
4. The Energy and Environment Cabinet, the Cabinet for Health and Family Services and the Public Service Commission shall coordinate their activities with the Division of Emergency Management in the Department of Military Affairs to maximize the effectiveness of the agencies and to be prepared should a general state of emergency in Magoffin County arise.

It is FURTHER ORDERED that all law enforcement personnel in the Commonwealth of Kentucky shall take any and all necessary action to immediately implement the provisions of this Order.

STEVEN L. BESHEAR, Governor  
Commonwealth of Kentucky

TREY GRAYSON  
Secretary of State







## ENERGY AND ENVIRONMENT CABINET

**Steven L. Beshear**  
Governor

DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION OF WATER  
14 REILLY ROAD  
FRANKFORT, KENTUCKY 40601  
PHONE (502) 564-3410  
www.dep.ky.gov  
August 25, 2008

**Leonard K. Peters**  
Secretary

**R. Bruce Scott**  
Commissioner

Mr. Thomas Howard  
Salyersville Municipal Water  
401 College Street  
Salyersville, Kentucky 41465

RE: PWSID# KY0770566  
Wells

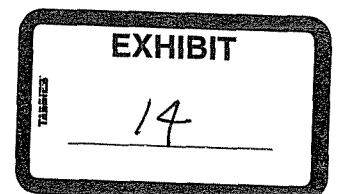
Dear Mr. Howard:

Due to the low flows in the Licking River at the Salyersville drinking water intake, the Division of Water is aware that Salyersville Municipal Water will begin using their groundwater wells as a supplemental source. The groundwater use is authorized as "back up status" under Salyersville's water withdrawal permit #1022. As the wells were tested in 2007 prior to use at that time, it is not necessary to test again this year.

The daily groundwater usage should be reported separately on both the Monthly Operating Report (MOR) and Water Withdrawal Report. If you have any questions, contact either myself at 502/564-3410 or Chris Yeary at 5025564-6716 (temporary phone number).

Sincerely,

Julie W. Roney  
Compliance & Technical Assistance  
Division of Water



## Salyersville Water Works

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**From:** Fleck, Allison (EEC) [Allison.Fleck@ky.gov]  
**Sent:** Thursday, November 13, 2008 4:26 PM  
**Subject:** Boil Water Advisory Issued for Magoffin County



### ENERGY AND ENVIRONMENT CABINET

**Gov. Steven L. Beshear**

**Dr. Len Peters, Secretary**

**Contact:**  
**Allison Fleck, Division of Water**  
**859-312-9506**

**For Immediate Release**

### **Boil water advisory issued for Magoffin County** *Low water in the Licking River diminishing quality*

FRANKFORT, Ky. (Nov. 13, 2008) – The Kentucky Department for Environmental Protection has issued a boil water advisory for Magoffin County resulting from poor water conditions in the Licking River.

The river is the primary source of water supply for the Magoffin County Water District and the City of Salyersville. Both water systems are served by Salyersville Municipal Water. Approximately 15,000 people are affected by the advisory.

A boil water advisory is a preventive measure to protect the health of the community from waterborne infectious agents. An advisory is issued after careful consideration among representatives from public health, regulatory and municipal agencies.

While water levels in the Licking River have risen slightly since a state of emergency was declared Oct. 10 due to low flow, the accumulation of leaves and high levels of

manganese have diminished the quality of the water, said Julie Roney, drinking water coordinator at the Division of Water.

“We have been working with the water utility to adjust the chlorine levels to mitigate these issues, but so far the additional applications have been insufficient to maintain the required minimum residual chlorine level in the distribution system,” she said. “This advisory was issued in the interest of public safety.”

Heavy leaf content causes the water to turn dark as the organic material deteriorates. High manganese levels are common when water is drawn from lower depths of supply sources. While neither of these conditions is harmful, it becomes difficult to “feed” enough chlorine to resolve the problem and continue to protect against bacteria.

“The chlorine is simply used up in the process of cleaning the water,” said Roney. “There is, then, no chlorine left over to protect the distribution system.”

Magoffin County residents are advised to prepare water for drinking, cooking and tooth brushing by bringing it to a rolling boil for three minutes (timing starts when the water begins to bubble). Cool the water, then place it in clean containers for use or refrigerate.

Hot, soapy water can be used for dishwashing and kitchen/bathroom surface cleaning. As a precaution, add one tablespoon of bleach per gallon. Water for laundering and bathing does not need to be boiled.

- 30 -

