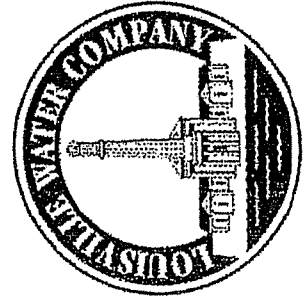


**Presentation to  
Master Planning and Capital  
Construction Committee of  
Bluegrass Water Supply Commission**

October 25, 2006





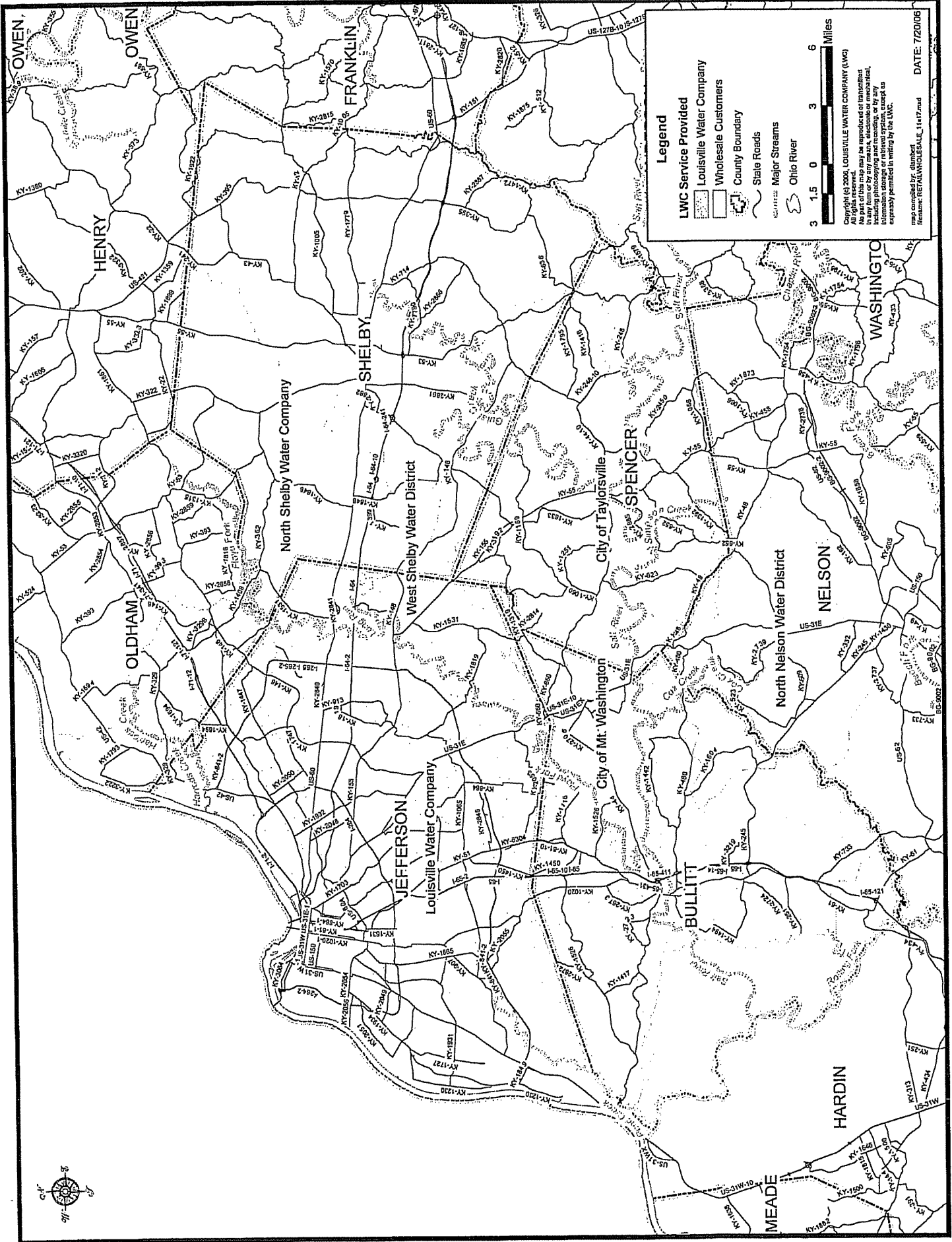
## Background Overview

- LWC provides retail water service to about 810,000 people in Metro Louisville, and portions of Oldham and Bullitt Counties.
- We deliver an average of approximately 131 million gallons of water a day, through nearly 3,900 miles of water main.
- LWC has two water treatment plants
  - Crescent Hill Plant has a firm capacity of 180 MGD
  - Payne Plant has a firm capacity of 60 MGD
  - Total firm capacity of 240 MGD
  - Total design capacity of 300 MGD
- Both plants use a chloramine disinfection residual that allows water quality to be maintained over long distances



# Wholesale Overview

- LWC currently has wholesale customers and contracts in the following counties:
  - Shelby County (North Shelby Water Company, West Shelby Water District)
  - Spencer County (City of Taylorsville)
  - Bullitt County (Mount Washington, Lebanon Junction)
  - Nelson County (North Nelson Water District)
- Wholesale water sales average 4.6 MGD; 4.2% of total sales (based on 2005 data).



**Legend**

- LWC Service Provided
- Louisville Water Company
- Wholesale Customers
- County Boundary
- State Roads
- Major Streams
- Ohio River

Scale: 0 to 6 Miles

Copyright © 2005 LOUISVILLE WATER COMPANY (LWC)  
All rights reserved.  
No part of this map may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage or retrieval system, except as expressly permitted in writing by the LWC.

Map compiled by: dambert  
Revision: RETAIL/WHOLESALE\_1147.mxd  
DATE: 7/20/05



## December 2005 Proposal to BWSC

- Four options were outlined in the proposal. All options discussed include:
  - a delivery point at KY Highway 53 (Shelbyville)
  - design capacity
  - reserve capacity
  - minimum daily purchase
  - reserve ratio (ratio of reserve capacity to minimum daily purchase)
- LWC will fund 24-inch pipeline to KY Highway 53 for Options 3 and 4
- BWSC funds upsizing for Options 1 and 2

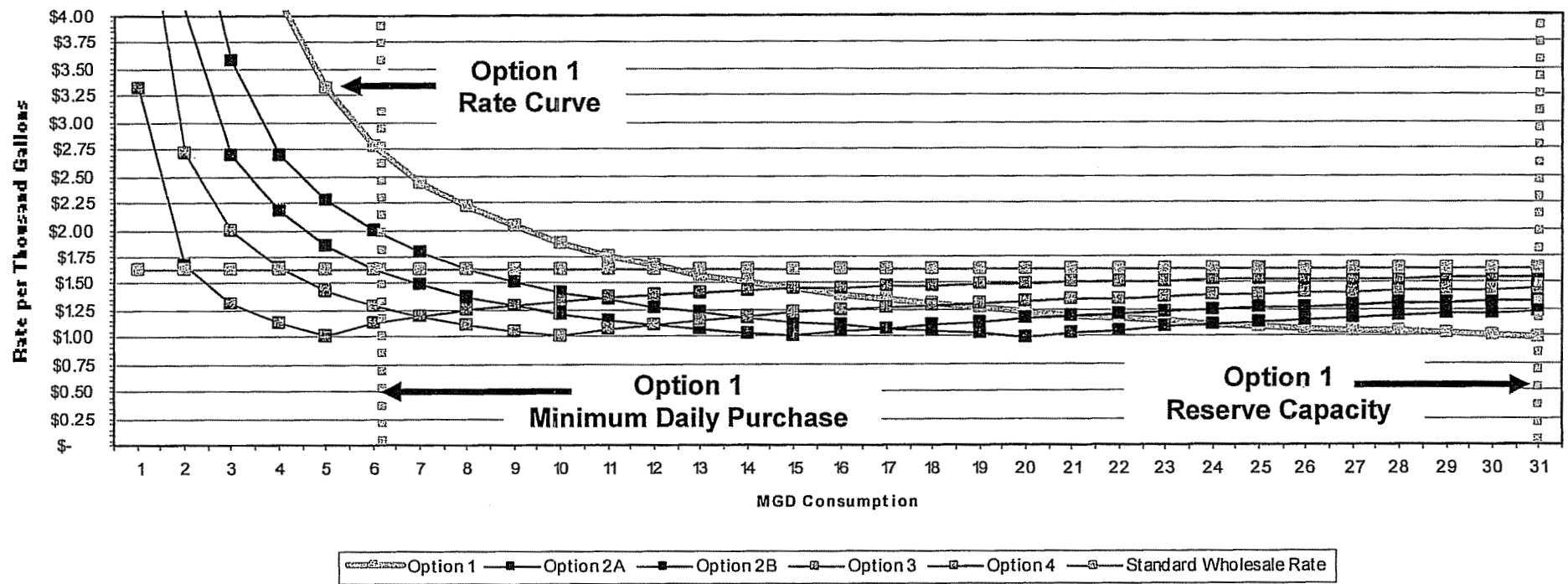
# Summarized December 2005 Proposal

Criteria	Option 1	Option 2A	Option 2B	Option 3	Option 4
Size main	42-inch	36-inch	30-inch	24-inch	24-inch
Design capacity	31 MGD	23 MGD	16 MGD	10 MGD	10 MGD
Reserve capacity	31 MGD	20 MGD	15 MGD	10 MGD	5 MGD
Minimum daily purchase	6.2 MGD	4 MGD	3 MGD	2 MGD	2 MGD
Reserve ratio	5:1	5:1	5:1	5:1	2.5:1
Water rate for minimum daily purchase	\$2.70 / 1,000 gal.	\$2.70 / 1,000 gal.	\$2.70 / 1,000 gal.	\$2.70 / 1,000 gal.	\$1.67 / 1,000 gal.
Water rate for consumption above minimum daily purchase and below reserve capacity	\$0.57 / 1,000 gal.	\$0.57 / 1,000 gal.	\$0.57 / 1,000 gal.	\$0.57 / 1,000 gal.	\$0.57 / 1,000 gal.
Water rate for consumption above reserve capacity	\$1.63 / 1,000 gal.	\$1.63 / 1,000 gal.	\$1.63 / 1,000 gal.	\$1.63 / 1,000 gal.	\$1.63 / 1,000 gal.

**Bluegrass Water Supply Commission**  
**Comparison of Water Rates for Alternative Reserve Capacities**  
**December 2005 Proposal**

Consumption MGD	OPTION 1		OPTION 2A		OPTION 2B		OPTION 3		OPTION 4		Standard Wholesale Rate
	6.2 MGD		4 MGD		3 MGD		2 MGD		2 MGD		
	Minimum Daily		Minimum Daily		Minimum Daily		Minimum Daily		Minimum Daily		
	31 MGD Reserve Capacity		20 MGD Reserve Capacity		15 MGD Reserve Capacity		10 MGD Reserve Capacity		5 MGD Reserve Capacity		
1	16.59		10.74		8.08		5.42		3.33		1.63
2	8.30		5.37		4.04		2.71		1.66		1.63
3	5.53		3.58		2.69		2.00		1.30		1.63
4	4.15		2.68		2.16		1.64		1.12		1.63
5	3.32		2.26		1.84		1.43		1.01		1.63
6	2.77		1.98		1.63		1.28		1.12		1.63
7	2.44		1.78		1.48		1.18		1.19		1.63
8	2.20		1.63		1.37		1.11		1.25		1.63
9	2.02		1.51		1.28		1.05		1.29		1.63
10	1.88		1.42		1.21		1.00		1.33		1.63
11	1.76		1.34		1.15		1.06		1.36		1.63
12	1.66		1.28		1.10		1.11		1.38		1.63
13	1.58		1.22		1.06		1.15		1.40		1.63
14	1.50		1.18		1.03		1.19		1.42		1.63
15	1.44		1.14		1.00		1.22		1.44		1.63
16	1.39		1.10		1.04		1.24		1.45		1.63
17	1.34		1.07		1.07		1.27		1.46		1.63
18	1.30		1.04		1.11		1.29		1.47		1.63
19	1.26		1.02		1.13		1.31		1.48		1.63
20	1.22		0.99		1.16		1.33		1.49		1.63
21	1.19		1.03		1.18		1.34		1.50		1.63
22	1.16		1.05		1.21		1.36		1.51		1.63
23	1.14		1.08		1.22		1.37		1.51		1.63
24	1.12		1.10		1.24		1.38		1.52		1.63
25	1.09		1.13		1.26		1.39		1.52		1.63
26	1.07		1.15		1.27		1.40		1.53		1.63
27	1.05		1.17		1.29		1.41		1.53		1.63
28	1.04		1.18		1.30		1.42		1.54		1.63
29	1.02		1.20		1.31		1.43		1.54		1.63
30	1.01		1.21		1.32		1.43		1.55		1.63
31	0.99		1.23		1.33		1.44		1.55		1.63

## Comparison of Water Rates for Alternative Minimum Daily Purchases and Reserve Capacities





# Tailored Solution



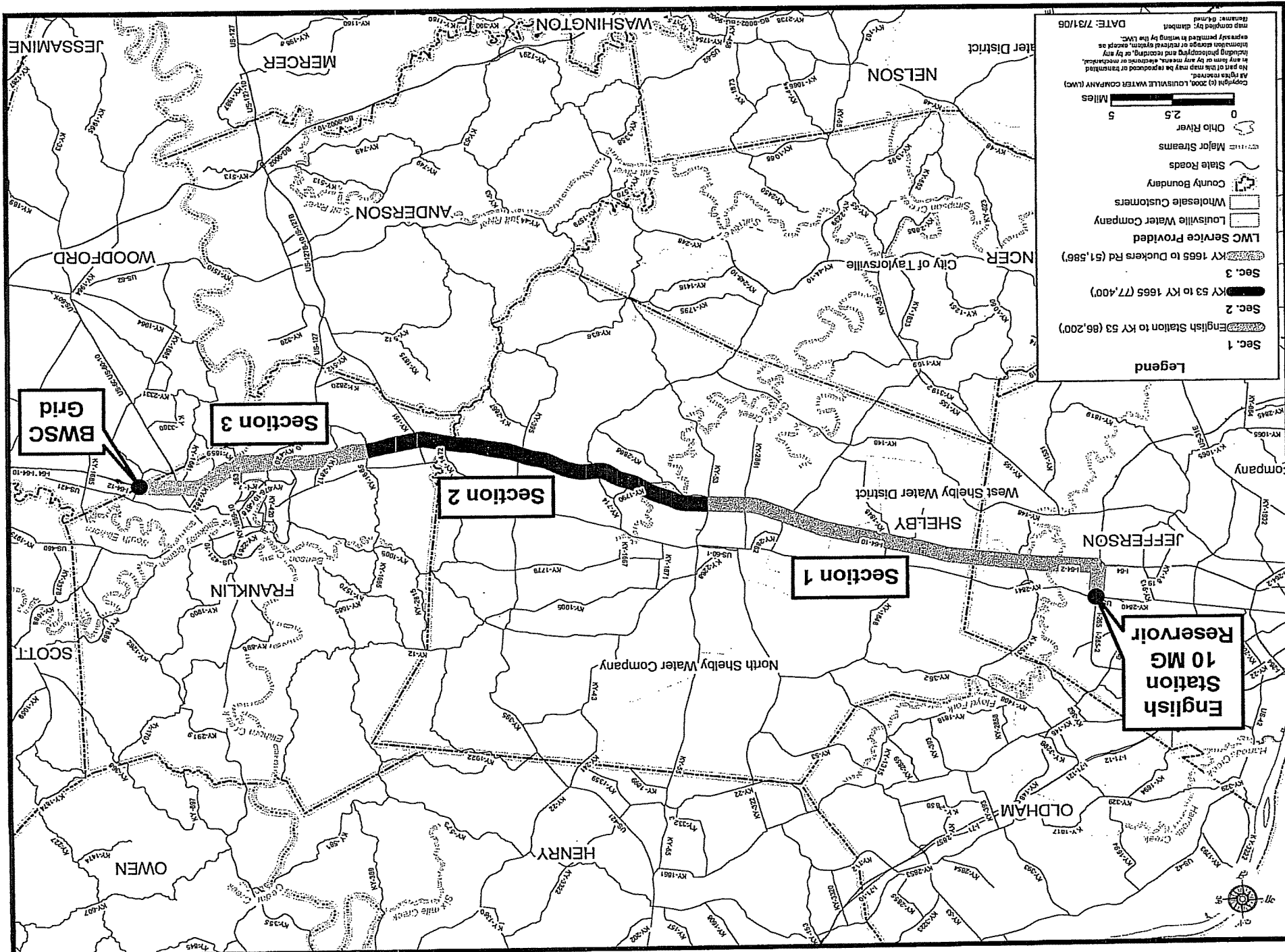
## **Tailored Solution to Maximize Value of Investment and Manage Operating Risk**

- Reliable supply
- Long-term partnership – 50 years
- Lowest life cycle (capital and O&M) yields lowest rate
- Mutual benefits to all participants
- Collaborative regional approach
- Attractive for federal and state grants / loans



## **Pipeline Solution Attributes**

- Timeliness – 24 to 30 months to construct facilities
- Low capital, operating, and maintenance costs
- Long life asset – 100 years vs. 30 to 50 years
- Independent source to supply Bluegrass region
- Scaleable for larger demand requirements
- Preserves Kentucky River as a long-term supply solution
- Secures source to Ohio River without additional investment



Copyright (c) 2004, LOUISVILLE WATER COMPANY (LWC)  
No part of this map may be reproduced or transmitted  
in any form or by any means, electronic or mechanical,  
including photocopying and recording, or by any  
information storage or retrieval system, except as  
expressly permitted in writing by the LWC.  
map compiled by: daniel  
datum: NAD83  
DATE: 7/31/06

- Legend**
- 0 2.5 5 Miles
  - Ohio River
  - Major Streams
  - State Roads
  - County Boundary
  - Wholesale Customers
  - LWC Service Provided
  - KY 1665 to Duckers Rd (\$1,586)
  - Sec. 3
  - Sec. 2
  - Sec. 1

**English Station  
10 MG  
Reservoir**

**Section 1**

**Section 2**

**Section 3**

**BWSC  
Grid**

## Facility Design Capacity

<i>Facility</i>	<i>Design Capacity</i>
20-inch main	7 MGD
24-inch main	10 MGD
30-inch main	15 MGD
36-inch main	20 MGD

*Design capacity at approximately 5 feet per second velocity.*

# Construction Cost Estimates

Section	Proposed Route	20-inch Main (7 MGD)	24-inch Main (10 MGD)	30-inch Main (15 MGD)	36-inch Main (20 MGD)
Section 1 (86,200 ft.)	US Hwy 60 to Hwy 53	\$12.8m	\$18.5m	\$22.7m	\$27.2m
Section 2 (77,400 ft.)	Hwy 53 to Ky 1665	\$9.3m	\$12.4m	\$14.3m	\$17.4m
Section 3 (51,600 ft.)	Ky 1665 to Duckers Road	\$6.2m	\$8.2m	\$9.5m	\$11.6m
Total Cost		\$28.3m	\$39.1m	\$46.5m	\$56.2m

*Construction cost estimates from December 2005.*



## LWC Participation

- LWC will build, own, and operate Section 1 (to Hwy 53)
  - 20-inch – \$12.8m construction estimate - 1 MGD min. purchase
  - 24-inch – \$18.5m construction estimate - 2 MGD min. purchase
  - 30-inch – \$22.7m construction estimate - 3 MGD min. purchase
  - 36-inch – \$27.2m construction estimate - 4 MGD min. purchase
- LWC can provide financing for Section 2 (to Ky 1665) and Section 3 (to Duckers Road)
- LWC financial commitment requires long-term contract (50 years)

# LWC System Capacity

- LWC proposes to assure production capacity greater than 15% for benefit of all customers (retail and wholesale)
- A designated reserve capacity by a single customer advances expansion requirements for existing customers
- LWC production capacity
  - 300 MGD design capacity
  - 240 MGD firm capacity available
  - Max Day 205 MGD (June 25, 2005)
  - Firm capacity ratio  $205 / 240 = 85\%$
  - LWC transmission capacity limited by size of facility (i.e. 36-inch main – 20 MGD)

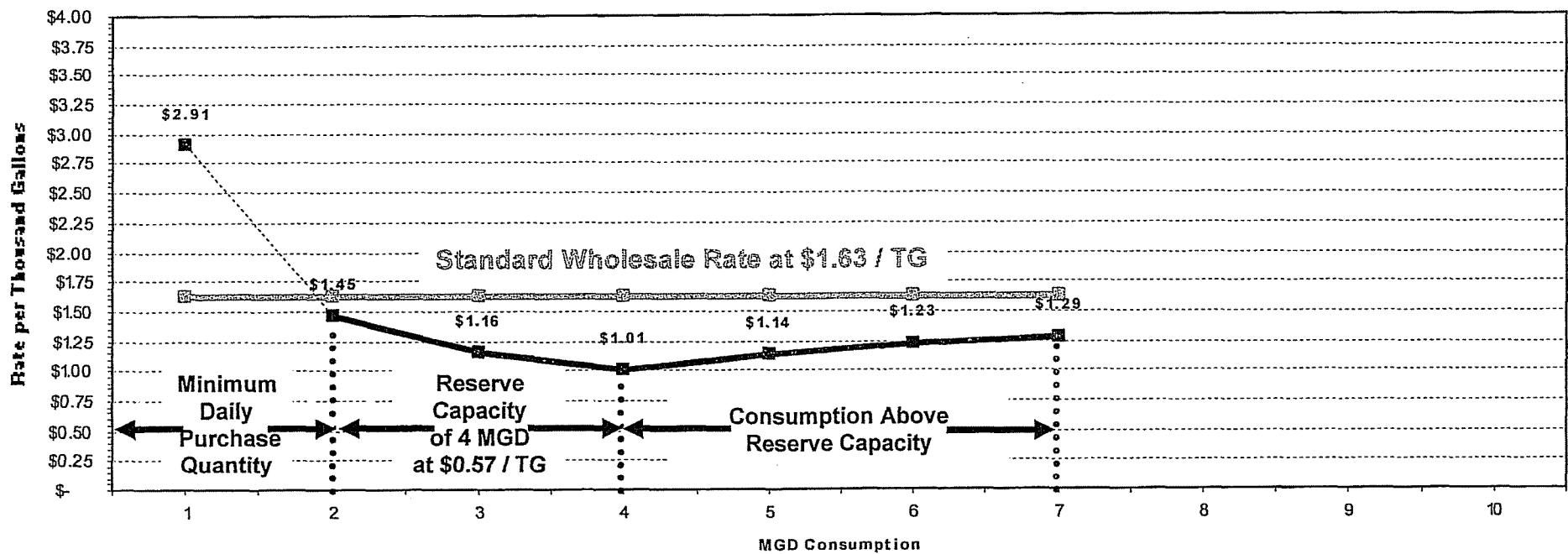


## Proposed Scenario

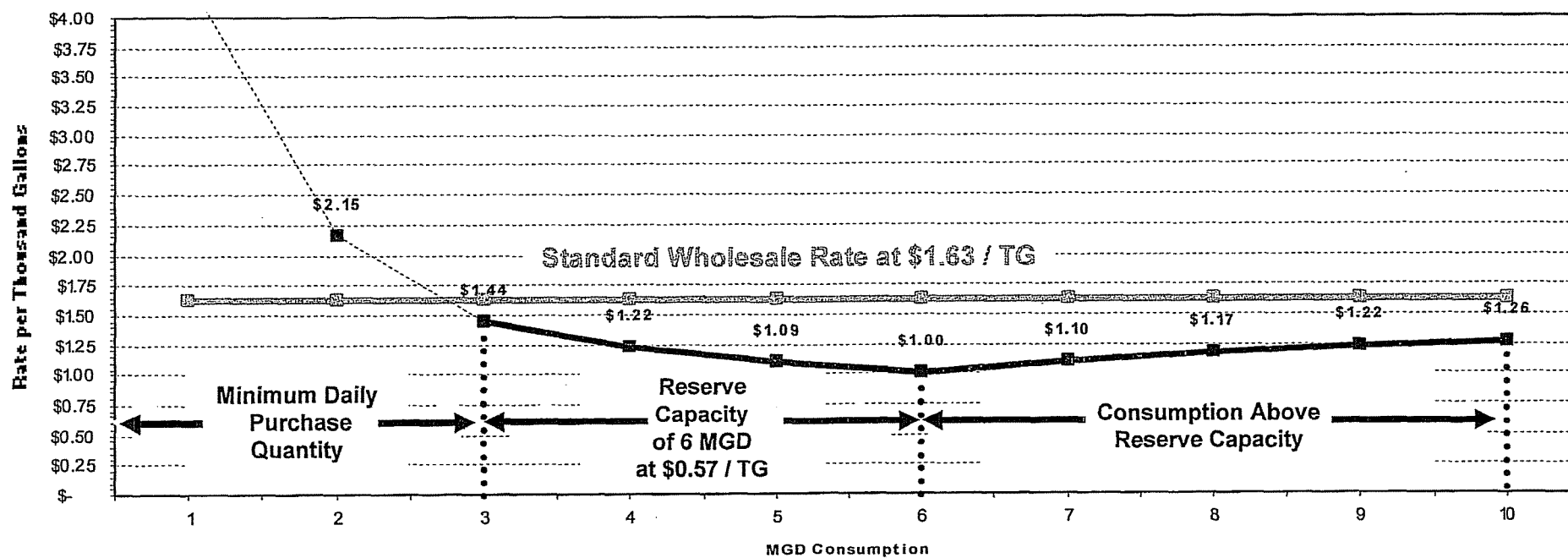
- Max Day Ratio of 2:1 with standard wholesale rate (\$1.63)
- Minimum take or pay contract based upon following demands:

<i>Transmission Size</i>	<i>Purchase Range</i>	<i>Max Day Range (2:1)</i>	<i>Rate</i>
20-inch	1 - 3.5 MGD	2 - 7 MGD	\$1.63
24-inch	2 - 5 MGD	4 - 10 MGD	\$1.63
30-inch	3 - 7.5 MGD	6 - 15 MGD	\$1.63
36-inch	5 - 10 MGD	10 - 20 MGD	\$1.63

**Louisville Water Company Tailored Proposal**  
**Example Scenario 1 for 20-Inch Main**  
**2 MGD Minimum, 4 MGD Maximum, 7 MGD Design Capacity**



**Louisville Water Company Tailored Proposal**  
**Example Scenario 2 for 24-Inch Main**  
**3 MGD Minimum, 6 MGD Maximum, 10 MGD Design Capacity**





# Standard Wholesale Rate Pricing

## Advantages

- Simplified rate methodology
- Easy to understand and communicate
- Allows transition to reserve rate methodology
- Approved by KY PSC

## Caveats

- Monthly demand exceeding Max Day demand factors
  - May establish a new minimum daily purchase requirement
  - Limits total consumption to design capacity of facility



## **Advantages of Tailored Solution**

- Variety of rate options available
- Several capital and financing scenarios available
- Timeliness to construct (24 - 30 months)
- Project attractive for federal and state grants / loans
- Independent Ohio River supply from Kentucky River source
- Kentucky River remains long-term option

## **Other Considerations to Discuss**

- Increased minimum take or pay allows LWC to increase financial commitment for the project
- LWC interest in BWSC membership
  - as ex-officio (e.g. KIA, KRA)
  - as supplier



# Next Steps

## **Partner with Bluegrass Water Supply Commission to:**

1. Determine the 2020 average and max day water supply need for BWSC participants
2. Select pipeline size based on max day demand (i.e. 10 MGD requires 24" main)
3. Determine minimum purchase quantity to assure water quality (i.e. 2 MGD for 24" main)
4. Determine max day to average demand factors over planning period (i.e. 2:1; 3:1; 4:1; 5:1)
5. Select rate method: Standard Wholesale Rate, Reserve Rate, or combination over time
6. Determine the minimum purchase quantity to maximize LWC financial investment in pipeline (i.e. 3 MGD allows LWC investment of \$22.7 million for 30" main to Highway 53)
7. Allocate minimum purchase quantity to BWSC participants
8. Build regional transmission grid to supply BWSC participants using grants and low interest loans
9. Provide provisions in contract to allow adjustment of minimum purchase, demand factors, and rate methodology to maximize investment value of the regional pipeline (i.e. base load from pipeline and peak from local sources)
10. Continue to pursue options for Kentucky River treatment plant for next increment of water beyond 2020 water demand projection

# Thank You!

- Please direct questions or comments regarding this presentation to:

- Greg Heitzman  
Senior Vice President and Chief Engineer  
(502) 569-3681  
[gheitzman@lwcky.com](mailto:gheitzman@lwcky.com)
- Bob Miller  
Vice President and Treasurer  
(502) 569-3663  
[bmiller@lwcky.com](mailto:bmiller@lwcky.com)
- Jim Smith  
Business System Owner, Infrastructure Planning  
(502) 569-3600 ext. 3687  
[jsmith@lwcky.com](mailto:jsmith@lwcky.com)





# LOUISVILLE WATER COMPANY

550 SOUTH THIRD STREET • LOUISVILLE, KENTUCKY 40202

TEL 502-569-3600

WWW.LOUISVILLEWATER.COM

April 27, 2007

**CONFIDENTIAL**

Mr. Phillip Ward  
Superintendent  
Oldham County Water District  
3707 W. Highway 146  
Buckner, KY 40010

RE: Proposal for Providing Wholesale Water to Oldham County

*Phil*  
Dear Mr. Ward:

Thank you for the several recent opportunities to meet and discuss options for Louisville Water Company to provide wholesale water to the Oldham County Water District (OCWD). Louisville Water Company (LWC) is very much interested in a wholesale partnering arrangement with OCWD, and believes this would be of benefit to both utilities and our communities.

Per your request at our last meeting, LWC is pleased to provide the enclosed presentation and associated maps. (Ten copies of each have been provided.)

I also want to provide additional information on a couple of items that were discussed in our last meeting. Although the LWC contribution and estimate on page 3 does not include the cost of the booster pump station, LWC would likely be able to fund this component provided that we reach a mutually agreeable alternative with respect to a minimum purchase contract at a 2:1 peaking factor.

Also, as we discussed it is likely that solutions that we have discussed may be favorably considered for grants or low-interest loans by the State. LWC has experience in pursuing these funding options and would be anxious to collaborate with you on this project.

I trust that this information meets your needs. If I can answer any questions or provide additional information, please call me at (502) 569-3641. We look forward to continued discussions with OCWD.

Sincerely,

James H. Brammell, PE, PLS  
Vice President, Chief Engineer

cc: Jim Smith  
Patti Kaelin  
bcc: John Huber  
Greg Heitzman  
Bob Miller  
Amber Halloran

*An Equal Opportunity Employer*



# **Louisville Water Company**

**Presentation to  
Oldham County Water District**

**April 25, 2007**



## **Benefits of Partnering with LWC**

- Reliable, high quality and low cost water supply.
- Abundant capacity available to meet current and future needs.
- Several financing scenarios available.
- Timeliness to construct.
- Standard wholesale rate and cost of service rate methodology approved by KY Public Service Commission.
- Project attractive for state grants and low interest loans.

## **Wholesale Supply Options**

Option	Capacity	Infrastructure Required	Standard Wholesale Rate*	LWC Contribution and Estimate**	Minimum Purchase for LWC to Fund Improvements
1	1.5 MGD	7,500 feet of 12 inch water main from Crestwood tank to Abbott Lane.	\$1.71	\$710 K	1.0 MGD
2	4 MGD	7,500 feet of 16 inch water main from Crestwood tank to Abbott Lane and various LWC system grid-ties.	\$1.71	\$1.70 M	1.0 MGD
3	7 MGD	36,500 feet of 20 inch water main from Reamers Road tank to OCWD Industrial Park tank.	\$1.71	\$5.60 M	2.5 MGD

\*Assumes point-of-delivery at master meter at service boundary, and peaking at 2:1 or less.

\*\*Does not include booster pump station and booster chlorination costs. LWC may provide these facilities based upon minimum purchase amount..

All wholesale contracts require Board of Water Works approval.

## **Benefits of Wholesale Supply Option**

- Solution can be designed to be phased in to meet future growth demands.
- Phased-in approach allows flexibility in OCWD future business and facility planning.
- Portion of capital investment for OCWD system improvements could possibly be reduced or eliminated.
- Long term contract duration of 40-50 years allows LWC investment.
- LWC can provide conversion of water to free chlorine and/or pumping to OCWD pressure requirements if required.
- 2:1 max day to average day peaking factor allows standard wholesale rate of \$1.71 per 1,000 gallons.



## **Emergency Supply Option**

- Capital investments required for 2 MGD capacity—
  - LWC funds 2,600 feet of 12 inch water main along Hwy 22 from Crestwood tank to LWC service boundary. Estimated cost = \$220 K.
  - OCWD funds 4,900 feet of 12 inch water main from LWC service boundary to Abbott Lane, and master meter located at service area boundary. Estimated cost = \$455 K.

## **Emergency Supply Option**

- OCWD will be responsible for following rates and charges:
  - System Development Charge for a 6 inch meter of about \$35,000 (costs for 4 inch or 8 inch meters can be provided upon request),
  - LWC will charge standard wholesale rate of \$1.71 per 1,000 gallons,
  - LWC will charge a monthly service charge of \$395.50 for a 6 inch meter. (The wholesale rate and monthly service charge are subject to annual adjustment by Board of Water Works.)



## **Emergency Supply Option**

- LWC will finance the improvements for OCWD at 4.6%. If emergency contract is converted to minimum purchase contract, depending upon terms, LWC may forgive loan.
- All contracts require Board of Water Works approval.
- Emergency supply offered under this option is subject to available capacity at the time it is desired.





## **Contacts**

- Jim Brammell  
Vice President – Chief Engineer  
502.569.3641  
[jbrammell@lwcky.com](mailto:jbrammell@lwcky.com)
  
- Jim Smith  
Director Infrastructure Planning  
502.569.3687  
[jsmith@lwcky.com](mailto:jsmith@lwcky.com)
  
- Patti Kaelin  
Manager Business Development  
502.569.0843  
[pkaelin@lwcky.com](mailto:pkaelin@lwcky.com)



# **Louisville Water Company**

**Wholesale Supply Presentation  
to  
Fort Knox**

**May 10, 2007**



## **Introduction**

- Safe, reliable water supplies are important issues for Ft. Knox and their customers.
- Louisville Water Company has an unlimited source of supply in the Ohio River and enough reserve capacity to supply the Ft. Knox and Hardin County Region.
- If needed, LWC can be a viable, low-cost solution for Ft. Knox.
- Wholesale supply solutions presented can be designed to be phased in to meet future growth demands. This allows flexibility in Ft. Knox future business and facility planning.
- Long term contract duration of 40-50 years, and minimum purchase amount(s) will allow LWC investment in supply infrastructure.



## **Background**

- Louisville Water Company (LWC) was chartered in 1854 as a municipal corporation, and provides retail and wholesale water service to 850,000 people in Metro Louisville, and portions of Bullitt, Nelson, Oldham, Shelby and Spencer Counties.
- LWC is a nationally recognized utility with demonstrated technical, managerial and financial capacity in all areas of water utility operations.
- LWC water quality exceeds all US EPA standards for drinking water.
- LWC's raw water source is the Ohio River, an abundant, reliable source that will meet all water supply requirements beyond the 21<sup>st</sup> century.

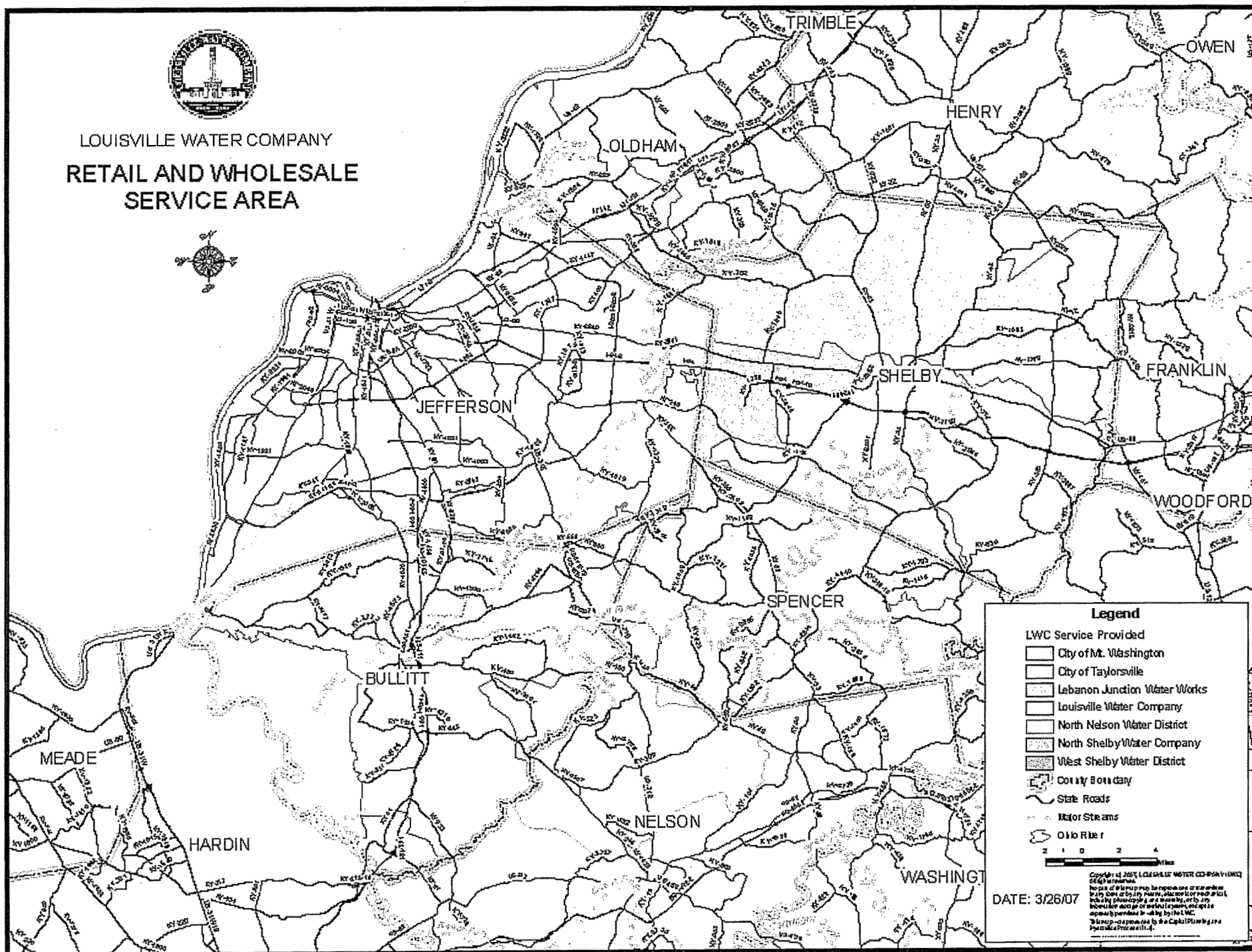


## **Background**

- LWC delivers an average of 130 million gallons of water a day (MGD), through nearly 3,900 miles of water main.
- LWC has two treatment plants with a current capacity of 240 MGD and can easily upgrade to 300 MGD. Currently, average day production is 130 MGD and maximum day production is 205 MGD (summer 2005).
- LWC currently has retail and wholesale customers in the following counties:
  - ☐ Bullitt County
  - ☐ Jefferson County
  - ☐ Nelson County
  - ☐ Oldham County
  - ☐ Shelby County
  - ☐ Spencer County



LOUISVILLE WATER COMPANY  
RETAIL AND WHOLESALE  
SERVICE AREA



**Legend**

LWC Service Provided

- City of Mt. Washington
- City of Taylorsville
- Lebanon Junction Water Works
- Louisville Water Company
- North Nelson Water District
- North Shelby Water Company
- West Shelby Water District

County Boundary

State Roads

Major Streams

Ohio River

0 1 2 3 4 Miles

DATE: 3/26/07

Copyright © 2007, LOUISVILLE WATER COMPANY (LWC)  
All rights reserved.  
No part of this map may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system, without the express written permission of the LWC.  
This map is prepared by the Capital Planning and  
Engineering Department.



## **Regional Philosophy**

- LWC will enter into business partnerships with other water utilities if it benefits the customers and stakeholders of both utilities.
- LWC will consider partnership opportunities within 75 miles of current retail service area.
- Partnership options include:
  - wholesale water service
  - mutual aid agreements
  - operating agreements



## **Water Rates**

- LWC establishes rates on cost-of-service principles established by the American Water Works Association.
- LWC maintains competitive water rates compared to suppliers in the region, with the typical residential customer paying an average monthly water bill of \$18.40 for 6,000 gallons of consumption.
- LWC will provide alternative wholesale rates based upon minimum purchases considering duration of contract, capacity reserved, contributed capital.





## **Strengths**

- Production Capacity.
  - LWC has enough reserve capacity to meet the water supply needs of the Ft. Knox and the Hardin County Region.
  - Superior water quality meets all US EPA and Ky Division of Water regulatory requirements, as well as the high standards of the Partnership for Safe Drinking Water.
- Technical Capacity.
  - LWC is an industry leader in water quality and treatment research, drinking water quality, infrastructure renewal and customer satisfaction.
  - Staff of Class IV Treatment Plant and Distribution System Operators, and professional engineers.
  - 24/7 operation and local emergency response capability.



## **Strengths**

- Financial Capacity.
  - Standard and Poor's Bond Rating of AA+, and Moody's Bond Rating of Aa1.
  - Debt service coverage 2006 of 2.74 (2006).
  - Ability to finance capital improvements and pursue partnering opportunities.
  - In house expertise for rate-making, cost of service and feasibility studies, capital budgeting and planning.
- Managerial Capacity.
  - LWC is a municipally owned private company, with all stock owned by Louisville Metro, and governed by the Board of Water Works.
  - LWC has full service management, business, HR, and legal resources available.



## **Strengths**

- Community Commitment.
  - Superior ratings in customer satisfaction, corporate commitment to product quality, and quality of services.
- Partner with local agencies and elected officials, and support community strategies for growth and development.
- Partner with local fire districts/departments to provide improved fire protection in served areas.
- Recognize the value of local utility employees.
- 24/7 operation and local emergency response capability.
- Establish Advisory Boards to provide input to LWC Board of Water Works on community water needs.



## **LWC Partnerships**

- Wholesale Partners:
  - ☐ North Shelby Water Company
  - ☐ West Shelby Water District
  - ☐ North Nelson Water District
  - ☐ Mt. Washington
  - ☐ Taylorsville
  - ☐ Lebanon Junction
  
- History of Mergers (since 1990):
  - ☐ Jeffersonstown
  - ☐ West Oldham Utilities
  - ☐ Oldham County Water District #1
  - ☐ Kentucky Turnpike Water Districts #1 and #2
  - ☐ Shepherdsville
  - ☐ Goshen



## **Ft. Knox Wholesale Proposal**

- Several wholesale supply scenarios are presented.
- Solutions can be designed to be phased in to meet future growth demands. This allows flexibility in Ft. Knox business and facility planning.
- Timeliness to construct; solutions can be completed within about 24 months.
- Long term contract duration of 40-50 years, and minimum purchase amount(s) will allow LWC investment in supply infrastructure.
- Regional project(s) are attractive for state grants and low interest loans.

## Wholesale Supply Concepts

Option	Capacity	Infrastructure Required	Total Estimated Cost	Minimum Purchase
1	2 MGD	17,000 feet of 16 inch water main, and 3 MGD booster pump station.	\$2.6 M	1.0 MGD
2	4 MGD	17,000 feet of 16 inch water main, 12/14 inch LWC system improvements, 0.75 MG storage, and two 4 MGD booster pump stations.	\$5.4 M	2.0 MGD
3	6 MGD	75,000 feet of 20 inch water main, 1.0 MG storage, and 6 MGD booster pump station.	\$10.60 M	3.0 MGD
4	8 MGD	75,000 feet of 24 inch water main, 1.5 MG storage, and 8 MGD booster pump station.	\$14.40 M	4.0 MGD
5	10 MGD	75,000 feet of 30 inch water main, 1.5 MG storage, and 10 MGD booster pump station.	\$16.30 M	5.0 MGD



## **Wholesale Supply Option Rates**

- Standard 2007 wholesale rate of \$1.44 per thousand gallons available if Ft. Knox funds operation and maintenance of the booster pump station. Standard wholesale rate assumes 2:1 max day to average day peaking factor.
- Standard 2007 wholesale rate of \$1.44 plus \$0.27 elevated service area charge per thousand gallons (for a rate of \$1.71 per thousand gallons) available if LWC funds operation and maintenance of the booster pump station. Standard wholesale rate assumes 2:1 max day to average day peaking factor.
- Alternative rates available for higher peaking factors.

## **Benefits of Wholesale Supply Option**

- Lowest capital and operations cost solution for added supplies.
- Supplement Ft. Knox/HC#1 well field supply.
- May defer or eliminate need to expand/upgrade Muldraugh or Central Water Treatment Plant.
- Leverages existing Ft. Knox assets (transmission mains).
- Preserves Ft. Knox options to privatize water system in future.
- Preserves Hardin County regional supply options.
- LWC finished water supply meets EPA regulations for DBP and LT2.





## **Further Discussion**

- **Distribution Chlorine Residuals.**
  - ☐ Segregate chloramine and free chlorine water supply.
  - ☐ Convert Ft. Knox system to chloramine residuals.
  - ☐ Convert LWC supplies to free chlorine residuals (booster chlorination).
  
- **Ownership of Booster Pump Station (BPS).**
  - ☐ If LWC funds operation and maintenance of the booster pump station the 2007 standard wholesale rate is \$1.71 per thousand gallons. Standard wholesale rate assumes 2:1 max day to average day peaking factor.
  
  - ☐ If Ft. Knox funds operation and maintenance of the booster pump station the 2007 standard wholesale rate is \$1.44 per thousand gallons. Standard wholesale rate assumes 2:1 max day to average day peaking factor.
  
- **Operational Flexibility.**
  - ☐ Hydraulic considerations.
  - ☐ Integration with well field infrastructure and operation.
  
- **Other Considerations.**

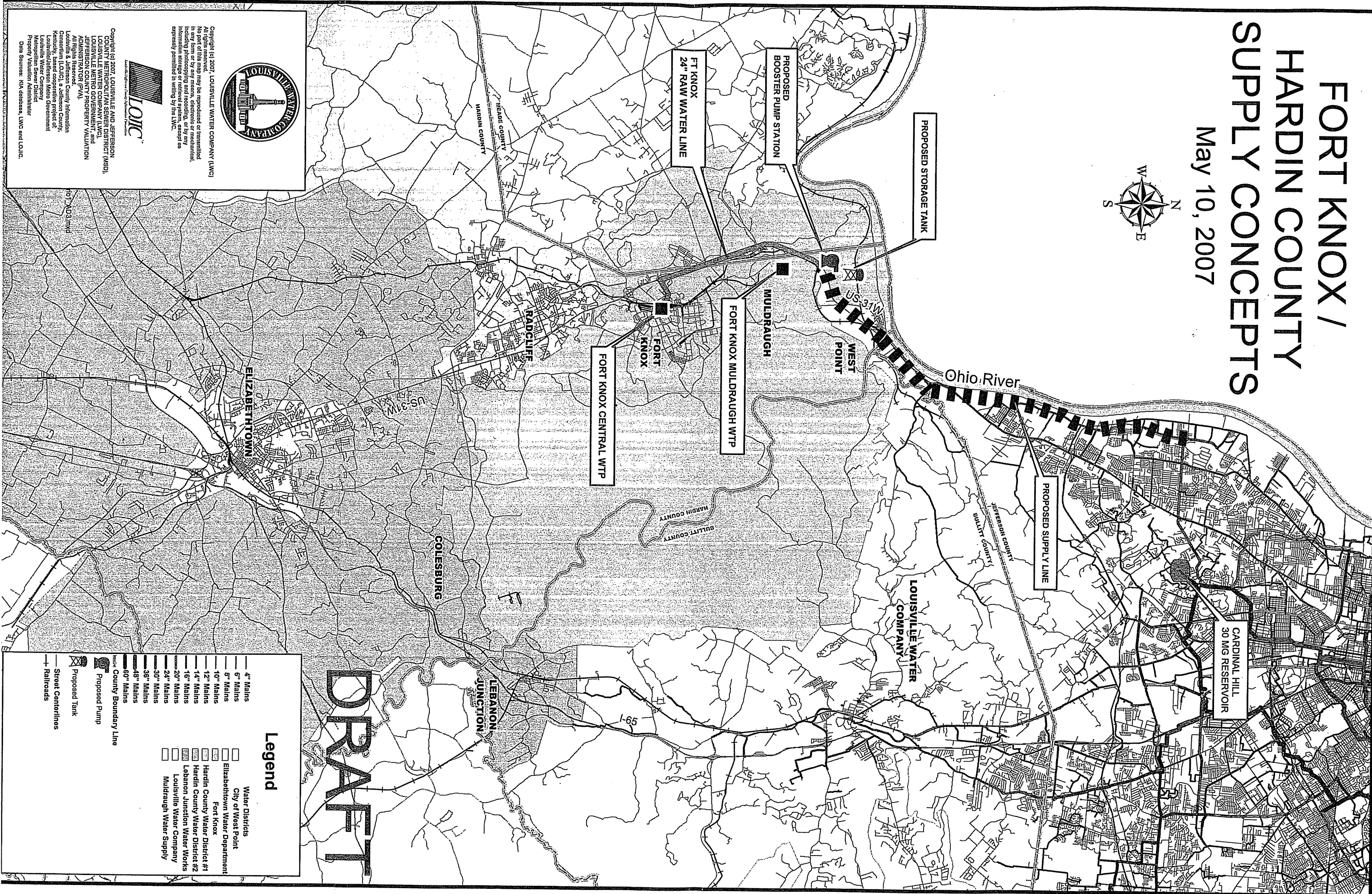


## Contacts

Greg Heitzman Senior Vice President, Operations 502.569.3641 <a href="mailto:gheitzman@lwcky.com">gheitzman@lwcky.com</a>	Bob Miller Vice-President, Treasurer 502.569.3663 <a href="mailto:bmiller@lwcky.com">bmiller@lwcky.com</a>
Jim Smith Director, Infrastructure Planning 502.569.3687 <a href="mailto:jsmith@lwcky.com">jsmith@lwcky.com</a>	Patti Kaelin Manager, Business Development 502.569.0843 <a href="mailto:pkaelin@lwcky.com">pkaelin@lwcky.com</a>

# FORT KNOX / HARDIN COUNTY SUPPLY CONCEPTS

May 10, 2007



Copyright (c) 2007, LOUISVILLE WATER COMPANY (LWC)  
All rights reserved.  
No part of this map may be reproduced or transmitted  
in any form or by any means, electronic or mechanical,  
including photocopying and recording, or by any  
information storage or retrieval system, except as  
expressly permitted in writing by the LWC.



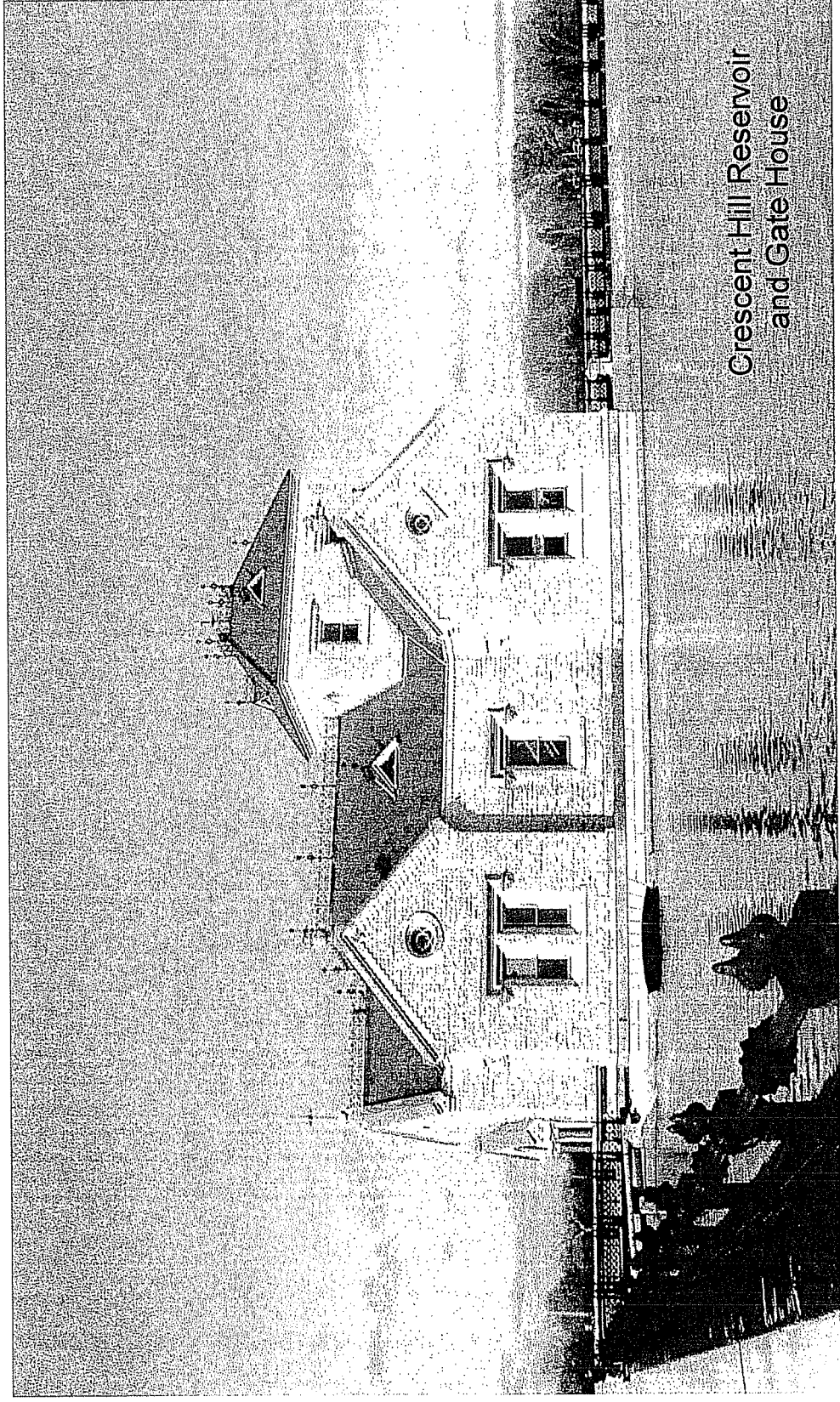
Copyright (c) 2007, LOUISVILLE AND JEFFERSON  
COUNTY METROPOLITAN SEWER DISTRICT (MSD),  
LOUISVILLE WATER COMPANY (LWC),  
LOUISVILLE METRO GOVERNMENT, and  
JEFFERSON COUNTY PROPERTY VALUATION  
AUTHORITY (PVA).  
Louisville & Jefferson County Information  
Consortium (LJCIC), a Jefferson County,  
Kentucky, based cooperative project of  
Louisville/Jefferson Metro Government  
Metropolitan Sewer District,  
Louisville Water Company,  
Jefferson County Property Valuation  
Authority, and Louisville Water Company.  
Property Valuation Administrator  
Data Sources: KIA database, LWC and LJCIC.

## Legend

- |                        |                                 |
|------------------------|---------------------------------|
| — 4" Mains             | Water Districts                 |
| — 6" Mains             | City of West Point              |
| — 8" Mains             | Elizabethtown Water Department  |
| — 10" Mains            | Fort Knox                       |
| — 12" Mains            | Hardin County Water District #1 |
| — 14" Mains            | Hardin County Water District #2 |
| — 16" Mains            | Lebanon Junction Water Works    |
| — 20" Mains            | Louisville Water Company        |
| — 24" Mains            | Muldraugh Water Supply          |
| — 30" Mains            |                                 |
| — 36" Mains            |                                 |
| — 48" Mains            |                                 |
| — 60" Mains            |                                 |
| — County Boundary Line |                                 |
| — Proposed Pump        |                                 |
| — Proposed Tank        |                                 |
| — Street Centerlines   |                                 |
| — Railroads            |                                 |

# DRAFT

# Louisville Water Company



Crescent Hill Reservoir  
and Gate House



# **Louisville Water Company**

## **Presentation to Frankfort Plant Board**

**May 15, 2007**





## **Introduction**

- Securing a safe, reliable water supply is an important issue for Central Kentucky.
- Determining the source of this water supply needs to be resolved by the water supply professionals, community and elected leaders of Central Kentucky.
- Louisville Water Company has an unlimited source of supply in the Ohio River and enough reserve capacity to supply the Bluegrass Region.
- LWC is a low-cost, twin rivers solution for reliability and drought protection for the Bluegrass Region.

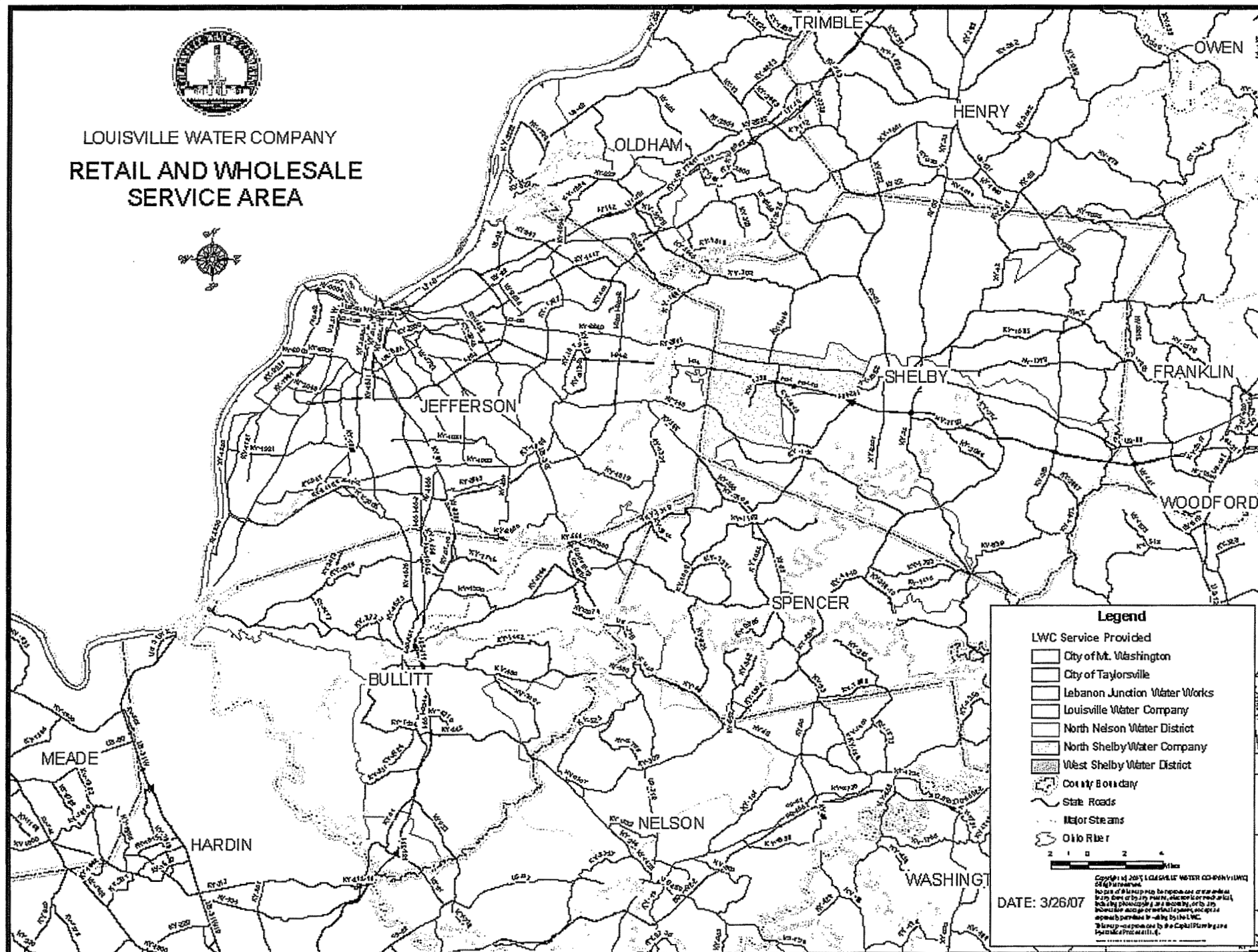


## **Background**

- Louisville Water Company (LWC) was chartered in 1854 as a municipal corporation.
- LWC is a nationally recognized utility with demonstrated technical, managerial and financial capacity in all areas of water utility operations.
- LWC water quality exceeds all US EPA and Ky Division of Water regulatory requirements, as well as the high standards of the EPA Partnership for Safe Drinking Water.
- LWC provides retail and wholesale water service to 850,000 people in Metro Louisville and the following counties:
  - ☐ Bullitt County
  - ☐ Jefferson County
  - ☐ Nelson County
  - ☐ Oldham County
  - ☐ Shelby County
  - ☐ Spencer County



LOUISVILLE WATER COMPANY  
RETAIL AND WHOLESALE  
SERVICE AREA



Legend

LWC Service Provided

- City of Mt. Washington
- City of Taylorsville
- Lebanon Junction Water Works
- Louisville Water Company
- North Nelson Water District
- North Shelby Water Company
- West Shelby Water District

County Boundary

State Roads

Major Streams

Ohio River

0 1 2 3 4 Miles

DATE: 3/26/07

Copyright © 2007 Louisville Water Company (LWC)  
All rights reserved.  
No part of this map may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage or retrieval system, except as may be permitted in writing by the LWC.  
This map was prepared by the Capital Planning and Economic Development Department.



## **LWC Supply Capacity**

- LWC's raw water source is the Ohio River, an abundant, reliable source that will meet all water supply requirements beyond the 21<sup>st</sup> century.
- The Ohio River is virtually an unlimited source of water for Kentucky, with an average flow of nearly 90 billion gallons of water a day. During the 1999 drought, LWC used less than 0.5% of the available capacity of the Ohio River.
- LWC delivers an average of 130 million gallons of water a day (MGD), through nearly 3,900 miles of water main.
- LWC has two treatment plants with a current capacity of 240 MGD and can be easily expanded to 300 MGD. Currently, average day production is 130 MGD and maximum day production is 205 MGD (summer 2005).



## **Water Rates**

- LWC establishes water rates on cost-of-service principles established by the American Water Works Association (AWWA).
- LWC maintains competitive water rates compared to suppliers in the region, with the typical residential customer paying an average monthly water bill of \$18.40 for 6,000 gallons of consumption.
- LWC standard 2007 wholesale rate is \$1.71 per thousand gallons.
- LWC will provide alternative wholesale rates based upon minimum purchase considering duration of contract, capacity reserved, and contributed capital.



## **Production and Technical Capacity**

- LWC has enough reserve capacity to meet the water supply needs of the Bluegrass Region. Reserve Capacity of 35 MGD (240 MGD total) can easily be increased to 95 MGD (300 MGD total).
- LWC is an industry leader in water quality and treatment research, drinking water quality, infrastructure renewal and customer satisfaction.
- Staff of Class IV Treatment Plant and Distribution System Operators, and professional engineers.
- 24/7 operation and local emergency response capability.



## **Financial Capacity**

- Standard and Poor's Bond Rating of AA+, and Moody's Bond Rating of Aa1.
- 2006 debt service coverage of 2.74.
- Ability to finance capital improvements and pursue partnering opportunities.
- In house expertise for rate-making, cost of service and feasibility studies, capital budgeting and planning.



## **Regional Philosophy**

- LWC will enter into business partnerships with other water utilities if it benefits the customers and stakeholders of both utilities.
- LWC will consider partnership opportunities within 75 miles of current retail service area.
- Partnership options include:
  - ☐ wholesale water service
  - ☐ mutual aid agreements
  - ☐ operating agreements

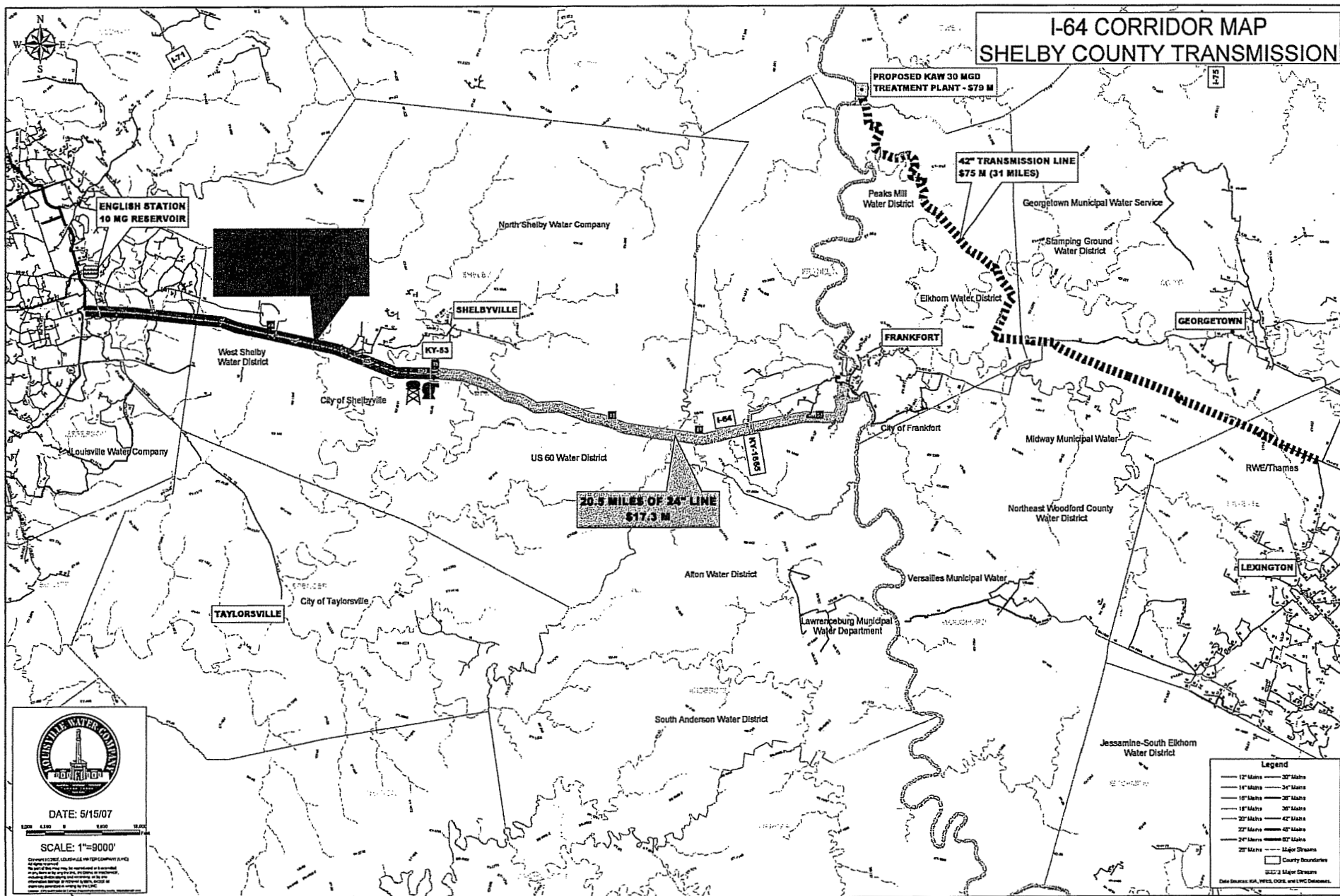


## **Shelby County - Frankfort Pipeline Solution**

- LWC will build and fund a pipeline along Interstate 64 from Snyder Freeway (I-265) to KY Hwy 53 in Shelby County, estimated at \$18.5 million.
- Pipeline flow of 2 MGD to assure water quality, and financial feasibility of project.
- Provide water at current LWC wholesale rate of \$1.71 per 1,000 gallons.
- 24 inch pipeline provides 10 MGD capacity.

## **Shelby County - Frankfort Pipeline Solution**

- Reserve Capacity of 35 MGD (240 MGD total), which can easily be increased to 95 MGD (300 MGD total).
- Pipeline sizes available:
  - 16 inch pipeline provides 5 MGD capacity
  - 20 inch pipeline provides 7 MGD capacity
  - 24 inch pipeline provides 10 MGD capacity
  - 30 inch pipeline provides 16 MGD capacity
  - 36 inch pipeline provides 23 MGD capacity
  - 42 inch pipeline provides 31 MGD capacity
- Pipeline can be built by 2010.
- I-64 pipeline is a regional water solution with potential partners including North Shelby Water Company, West Shelby Water District, US 60 Water District, and the cities of Shelbyville, Frankfort and Georgetown.

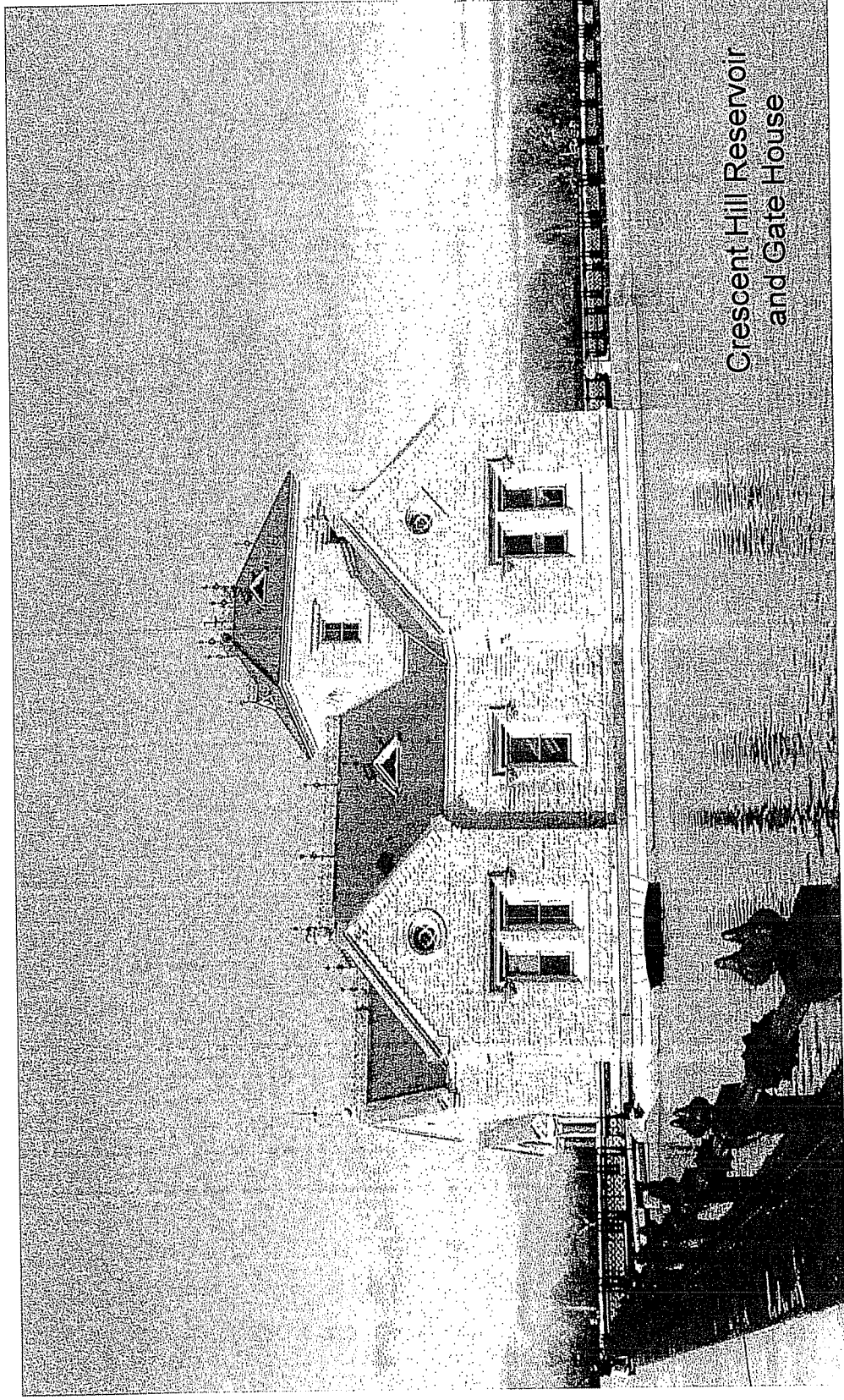




## **Benefits of a Twin-River Solution**

- ☐ Provides an unlimited source of supply from the Ohio River.
- ☐ Provides a cost effective and timely regional solution.
- ☐ Is attractive for state and federal grants.
- ☐ Provides long term drought protection, and availability of an emergency supply.
- ☐ Provides connectivity for regional water providers.

# Louisville Water Company





# **Louisville Water Company**

## **Presentation to Shelbyville Water and Sewer Commission**

**June 18, 2007**

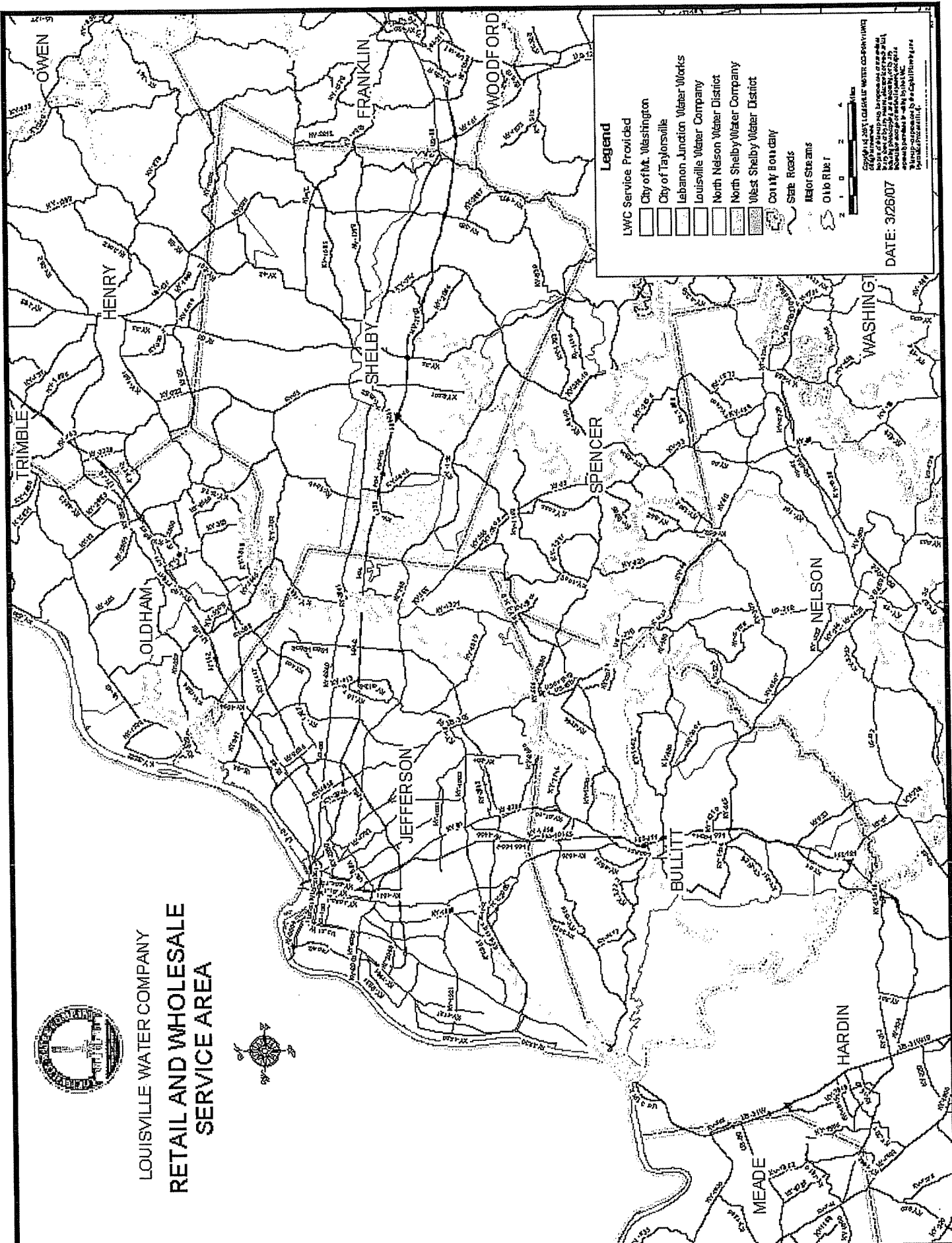


## **Background**

- Louisville Water Company has an unlimited source of supply in the Ohio River and enough reserve capacity to supply Shelby County.
- Louisville Water Company (LWC) was chartered in 1854 as a municipal corporation, and is a nationally recognized utility with demonstrated technical, managerial and financial capacity in all areas of water utility operations.
- LWC water quality exceeds all US EPA and Ky Division of Water regulatory requirements, as well as the high standards of the EPA Partnership for Safe Drinking Water.
- LWC provides retail and wholesale water service to 850,000 people in Metro Louisville and Bullitt, Jefferson, Nelson, Oldham, Shelby and Spencer counties.

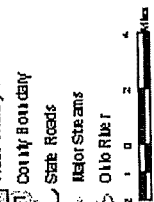


LOUISVILLE WATER COMPANY  
RETAIL AND WHOLESALE  
SERVICE AREA



Legend

- LWC Service Provided
- City of Mt. Washington
- City of Taylorsville
- Lebanon Junction Water Works
- Louisville Water Company
- North Nelson Water District
- North Shelby Water Company
- West Shelby Water District
- County Boundary
- State Roads
- Major Streams
- Ohio River



Copyright © 2001 Louisville Water Company  
No part of this map may be reproduced or transmitted in any form or by any means electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from the Louisville Water Company.  
DATE: 3/26/07

## **LWC Supply Capacity**

- LWC's raw water source is the Ohio River, an abundant, reliable source that will meet all water supply requirements beyond the 21<sup>st</sup> century.
- The Ohio River is virtually an unlimited source of water for Kentucky, with an average flow of nearly 90 billion gallons of water a day. During the 1999 drought, LWC used less than 0.5% of the available capacity of the Ohio River.
- LWC delivers an average of 130 million gallons of water a day (MGD), through nearly 3,900 miles of water main.
- LWC has two treatment plants with a current capacity of 240 MGD and can be easily expanded to 300 MGD. Currently, average day production is 130 MGD and maximum day production is 205 MGD (summer 2005).

# **Shelby County Pipeline Proposal**



## **Shelby County Pipeline Proposal**

- LWC will build and fund a pipeline along Interstate 64 from Snyder Freeway (I-265) to KY Hwy 53 in Shelby County, estimated at \$18.5 million.
- Pipeline flow of 2 MGD to assure water quality, and financial feasibility of project.
- Provide water at current LWC wholesale rate of \$1.71 per 1,000 gallons.
- 24 inch pipeline provides 10 MGD capacity.



## **Shelby County Pipeline Proposal**

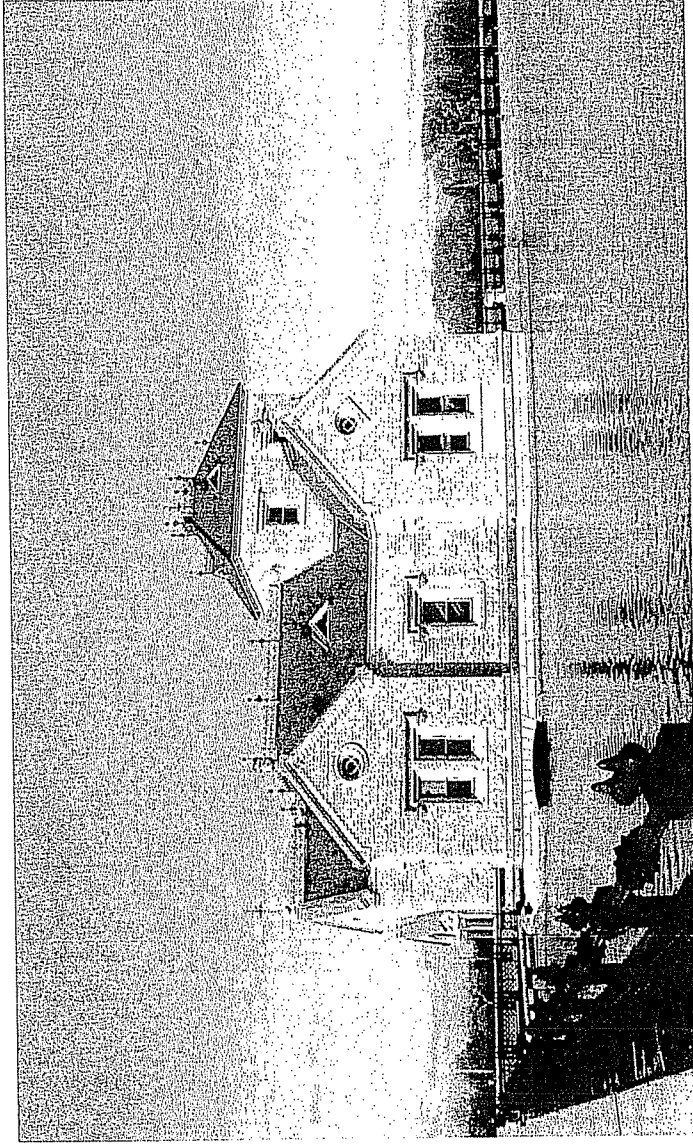
- Reserve Capacity of 35 MGD (240 MGD total), which can easily be increased to 95 MGD (300 MGD total).
- Pipeline sizes available:
  - 16 inch pipeline provides 5 MGD capacity
  - 20 inch pipeline provides 7 MGD capacity
  - 24 inch pipeline provides 10 MGD capacity
  - 30 inch pipeline provides 16 MGD capacity
  - 36 inch pipeline provides 23 MGD capacity
  - 42 inch pipeline provides 31 MGD capacity
- Pipeline can be built by 2010.





## **Benefits of a Shelby County Pipeline**

- ☐ Provides an unlimited source of supply from the Ohio River.
- ☐ Provides a cost effective and timely regional solution.
- ☐ Is attractive for state and federal grants.
- ☐ Provides long term drought protection, availability of an emergency supply, and supplies for future growth.
- ☐ Provides connectivity for regional water providers.



**Louisville Water Company  
Presentation to  
North Nelson Water District  
July 9, 2007**

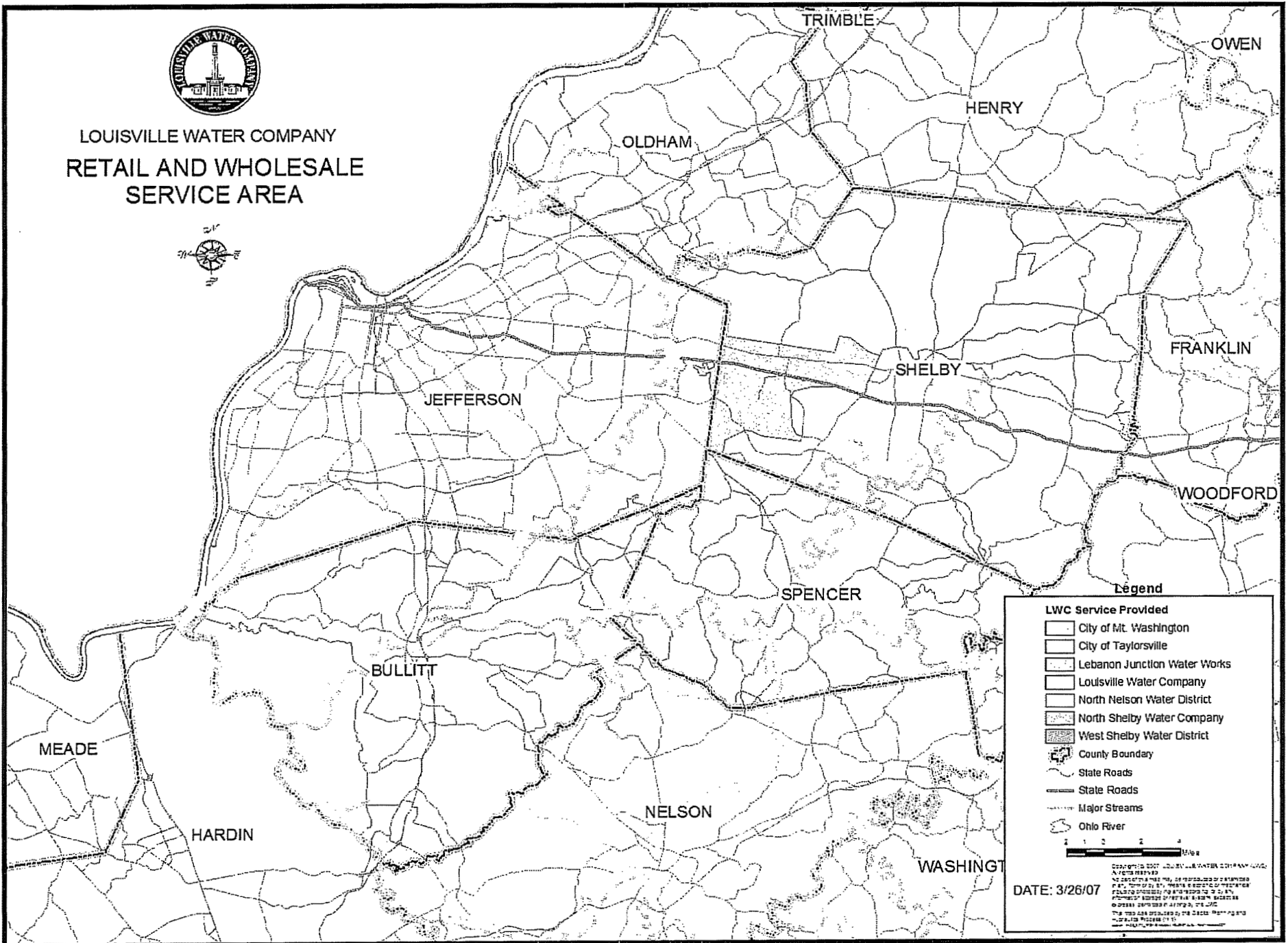
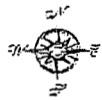


## **Background**

- LWC was chartered in 1854 as a municipal corporation.
- LWC is a nationally recognized utility with demonstrated technical, managerial and financial capacity in all areas of water utility operations.
- LWC water quality exceeds all US EPA and Ky Division of Water regulatory requirements, as well as the high standards of the EPA Partnership for Safe Drinking Water.
- LWC provides retail and wholesale water service to 850,000 people in Metro Louisville and the following counties:
  - Bullitt County
  - Nelson County
  - Oldham County
  - Shelby County
  - Spencer County



LOUISVILLE WATER COMPANY  
RETAIL AND WHOLESALE  
SERVICE AREA



- LWC Service Provided**
- City of Mt. Washington
  - City of Taylorsville
  - Lebanon Junction Water Works
  - Louisville Water Company
  - North Nelson Water District
  - North Shelby Water Company
  - West Shelby Water District

- Legend**
- County Boundary
  - State Roads
  - State Roads
  - Major Streams
  - Ohio River

DATE: 3/26/07



## **LWC Supply Capacity**

- LWC's water source is the Ohio River, an abundant, reliable source that will meet all water supply requirements in the region.
- The Ohio River is virtually an unlimited source of water for Kentucky, with an average flow of nearly 90 billion gallons of water per day. During the 1999 drought, LWC used less than one-half of one percent of the available capacity of the Ohio River.
- LWC has two treatment plants with a current capacity of 240 million gallons per day (MGD) which can be easily expanded to 300 MGD. LWC's historical maximum day pumping was 205 MGD in 2005.
- LWC has enough reserve capacity to meet the future water supply needs of the region. LWC has existing reserve capacity of 35 MGD that can easily be increased to 95 MGD.



## **LWC Technical and Managerial Capacity**

- LWC is an industry leader in water quality and treatment research and was instrumental in the establishment of the Partnership for Safe Drinking Water with the USEPA.
- LWC is an industry leader in drinking water quality, with performance consistently better than regulatory standards.
- LWC is an industry leader in infrastructure rehabilitation and renewal and benchmarked by utilities from around the world.
- LWC is an industry leader in customer satisfaction, with high ratings for quality, service and value.





## **LWC Financial Capacity**

- LWC Revenue Bonds are rated AA+ by Standard and Poor's Corporation and Aa1 by Moody's Investors Service. These ratings are among the highest in the United States.
- LWC has the capacity to finance capital improvements to extend service in the region.
- LWC has the organizational flexibility to enter into a wide range of partnership opportunities.



## **LWC Water Rates**

- LWC establishes water rates on cost-of-service principles established by the American Water Works Association (AWWA).
- LWC maintains competitive water rates. The typical residential monthly water bill is \$18.40 for 6,000 gallons of consumption.
- LWC standard wholesale rate is \$1.71 per thousand gallons.
- LWC will provide alternative wholesale rates based upon minimum purchase, duration of contract, capacity reserved, and contributed capital.



## **Ky Highway 245 Pipeline**

- LWC proposes a 12 or 16-inch pipeline from Happy Hollow Road to the North Nelson service boundary at Lotus Lane.
- LWC can build and fund a 12-inch line based upon a minimum purchase of 0.5 MGD.
- LWC can finance the upsizing of the pipeline from a 12-inch to a 16-inch.
- A minimum purchase of 0.5 MGD is necessary to assure water quality and financial feasibility of the project.
- LWC can complete construction of a pipeline by the summer of 2008.

## **Ky Highway 245 Pipeline Capacity**

- A 12- inch pipeline will provide up to 2.5 MGD of supply capacity.
- Other pipeline sizes are available:

Size	Capacity	Minimum Take or Pay
12 inch	2.5 MGD	0.5 MGD
16 inch	4.5 MGD	1 MGD



## **Benefits of a Ky Highway 245 Pipeline**

- Provides an unlimited source of supply from the Ohio River.
- Provides additional water supplies for system growth, long term drought protection and a redundant source for water system reliability.
- Is attractive for state grants.
- Provides connectivity for regional water providers.

**Louisville Water Company (LWC) Response to  
Lexington Urban County Government  
Questions Related to the I- 64 Pipeline**

**July 10, 2007**

**Q -1    How large of an aqueduct (pipe) is necessary to supply Central Kentucky?**

*Answer:        A 36-inch water main can supply up to 30 million gallons of water a day. Larger size pipelines can supply additional capacity.*

**Q -2    How will the price of water be determined?**

*Answer:        Louisville Water Company establishes rates on cost of service principles established by the American Water Works Association. LWC's standard wholesale rate is \$1.71 per 1000 gallons.*

**Q - 3    Has LWC been talking with other communities about water supply? Are you able to say which communities?**

*Answer:        Yes, LWC has met and discussed water supply needs with the water suppliers in Shelby County, the Bluegrass Water Supply Commission, and the Cities of Frankfort and Georgetown.*

**Q - 4    What would be the guaranteed water capacity versus the committed water capacity to Lexington?**

*Answer:        The Ohio River source has an unlimited water supply. LWC has 35 MGD of reserve production capacity, easily expandable to 95 MGD of reserve capacity with minor plant and transmission upgrades. LWC will commit to maintaining a reserve capacity of 15% for all of our customers, consistent with KDOW requirements.*

**Q - 5    Who will pay for the extension of a pipeline to Louisville?**

*Answer:        LWC will finance, build and own the line from Jefferson County to Hwy 53 in Shelby County, at an estimated cost of \$25 million. The portion from Hwy 53 to Lexington (estimated to cost \$56 million) can be financed from any combination of: grants, state/federal low interest loans and water rates. This portion of the transmission line will be dedicated for wholesale use only and can be owned by any number of parties, including Lexington, Bluegrass Water Supply Commission, Kentucky American, the Kentucky Infrastructure Authority, or a regional consortium of partners including Louisville Water Company.*

**Q - 6    What is your capacity for those you serve and is your planned capacity growing (10, 20, 30%) over the next 25-30 years?**

*Answer:        LWC has enough reserve capacity to meet the water supply needs of our current customers and Central KY. We have reserve capacity of 35 MGD*

*(240 MGD total), which can be easily increased to 95 MGD (300 MGD total). We have seen significant decline in industrial use and we anticipate industrial use to continue to decline.*

**Q - 7 What is the feasibility of this project? Can it actually be done on the north side of I-64, with approval to use the State Right of Way?**

*Answer: This project is very feasible. LWC has 150 years of experience of building water transmission mains and a project of this scale can be designed and constructed in 24 to 30 months. We are confident that we can either obtain permission to use the I-64 right-of-way or acquire the necessary easements that are adjacent to the right-of-way where the property is already encumbered.*

**Q - 8 What is the comparison to alternatives in terms of reliability?**

*Answer: A pipeline to the unlimited source of supply in the Ohio River guarantees a reliable source of water. Pipeline sources are also scalable to provide additional capacity and are designed to last 75 to 100 years. The KY River is not a drought proof source of supply and studies have determined the long term need for an additional source of supply from the Ohio River. A pipeline to Louisville also provides an independent source of supply in the event of a hazardous spill or other emergency that may occur on the KY River.*

**Q - 9 What would be the effects on those who are our regional partners in the Bluegrass Regional Water Commission?**

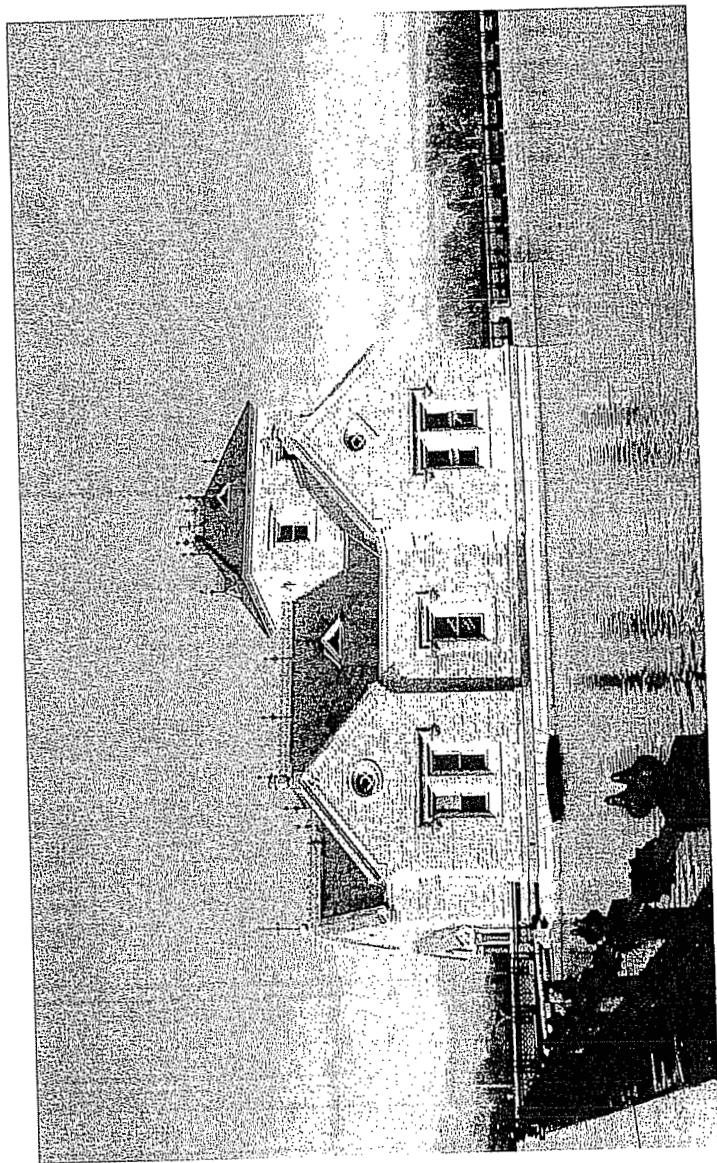
*Answer: LWC has enough reserve capacity to supply all of the future water supply needs of Central KY including each member of the Bluegrass Water Supply Commission (BWSC). Water suppliers along the route would be allowed to connect to this pipeline as wholesale customers at the standard rate of \$1.71 per 1,000 gallons. This would include the members of the BWSC.*

**Q - 10 What is the potential development impact along a Louisville to Lexington pipeline route?**

*Answer: LWC believes that the I-64 corridor is the least disruptive to the environment because it is along a route that already has significant development and is already encumbered by the Interstate and other utilities.*

**Q - 11 What are potential downsides?**

*Answer: We believe I-64 Pipeline project has very viable benefits as the only solution that provides a drought proof, reliable and low cost solution to Central KY's water supply needs. This pipeline provides access to water for BWSC members as well as water suppliers in Shelby County.*



**Louisville Water Company  
Presentation to  
Lexington - Fayette Urban County Council  
July 10, 2007**





## **Introduction**

- Securing a safe and reliable water supply is an important issue for Central Kentucky.
- Determining the source of this water supply needs to be resolved by the water supply professionals, community and elected leaders of Central Kentucky.
- LWC has an unlimited source of supply in the Ohio River with enough reserve capacity to supply the current and future water supply deficits of Central Kentucky.
- LWC is a low-cost component of a twin rivers solution for reliability and drought protection for Central Kentucky.

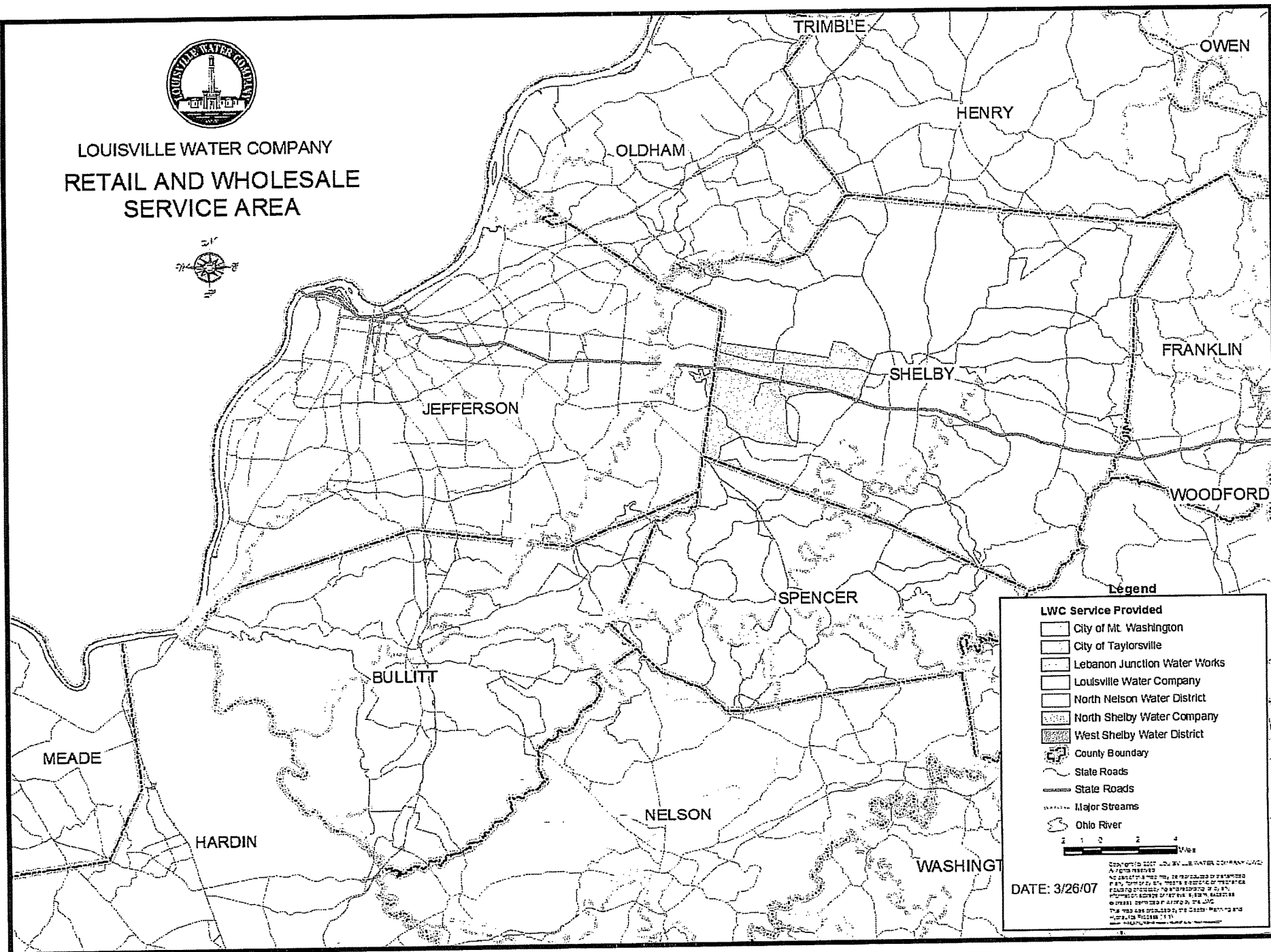
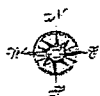


## **Background**

- LWC was chartered in 1854 as a municipal corporation.
- LWC is a nationally recognized utility with demonstrated technical, managerial and financial capacity in all areas of water utility operations.
- LWC water quality exceeds all US EPA and Ky Division of Water regulatory requirements, as well as the high standards of the EPA Partnership for Safe Drinking Water.
- LWC provides retail and wholesale water service to 850,000 people in Metro Louisville and the following counties:
  - Bullitt County
  - Nelson County
  - Oldham County
  - Shelby County
  - Spencer County



LOUISVILLE WATER COMPANY  
RETAIL AND WHOLESALE  
SERVICE AREA



Legend

LWC Service Provided

- City of Mt. Washington
- City of Taylorsville
- Lebanon Junction Water Works
- Louisville Water Company
- North Nelson Water District
- North Shelby Water Company
- West Shelby Water District
- County Boundary
- State Roads
- State Roads
- Major Streams
- Ohio River

0 1 2 3 4  
Miles

DATE: 3/26/07

Copyright © 2007 Louisville Water Company, LLC. All rights reserved. No portion of this map may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written permission of the Louisville Water Company, LLC. The map was prepared by the County Mapping and Information Services Unit.



## **LWC Supply Capacity**

- LWC's water source is the Ohio River, an abundant, reliable source that will meet all water supply requirements in the region.
- The Ohio River is virtually an unlimited source of water for Kentucky, with an average flow of nearly 90 billion gallons of water per day. During the 1999 drought, LWC used less than one-half of one percent of the available capacity of the Ohio River.
- LWC has two treatment plants with a current capacity of 240 million gallons per day (MGD) which can be easily expanded to 300 MGD. LWC's historical maximum day pumping was 205 MGD in 2005.
- LWC has enough reserve capacity to meet the water supply needs of Central Kentucky. LWC has existing reserve capacity of 35 MGD that can easily be increased to 95 MGD.



## **LWC Technical and Managerial Capacity**

- LWC is an industry leader in water quality and treatment research and was instrumental in the establishment of the Partnership for Safe Drinking Water with the USEPA.
- LWC is an industry leader in drinking water quality, with performance consistently better than regulatory standards.
- LWC is an industry leader in infrastructure rehabilitation and renewal and benchmarked by utilities from around the world.
- LWC is an industry leader in customer satisfaction, with high ratings for quality, service and value.



## **LWC Financial Capacity**

- LWC Revenue Bonds are rated AA+ by Standard and Poor's Corporation and Aa1 by Moody's Investors Service. These ratings are among the highest in the United States.
- LWC has the capacity to finance capital improvements to extend service to Central Kentucky.
- LWC has the organizational flexibility to enter into a wide range of partnership opportunities.



## **LWC Water Rates**

- LWC establishes water rates on cost-of-service principles established by the American Water Works Association (AWWA).
- LWC water rates are among the lowest in the state. The typical residential monthly water bill is \$18.40 for 6,000 gallons of consumption.
- LWC standard wholesale rate is \$1.71 per thousand gallons.
- LWC will provide alternative wholesale rates based upon minimum purchase, duration of contract, capacity reserved, and contributed capital.



## **Central Kentucky Water Supply Needs**

- Additional reliable source of supply by 2010.
- Additional capacity of 20 – 25 MGD.
- Low cost solution.



## **Proposed Interstate 64 Pipeline Solution for Central Kentucky**

- LWC proposes a 36 inch pipeline be built from Jefferson County to Fayette County, along Interstate 64.
- LWC will build and fund a 36 inch pipeline along Interstate 64 from Snyder Freeway (I-265) to KY Hwy 53 in Shelby County.
- If needed, LWC will finance the portion of the pipeline from KY Highway 53 to Fayette County.
- LWC will provide water service to wholesale customers connecting to the pipeline at the LWC wholesale rate of \$1.71 per thousand gallons (2007 standard wholesale rate).
- Pipeline will be built by 2010.



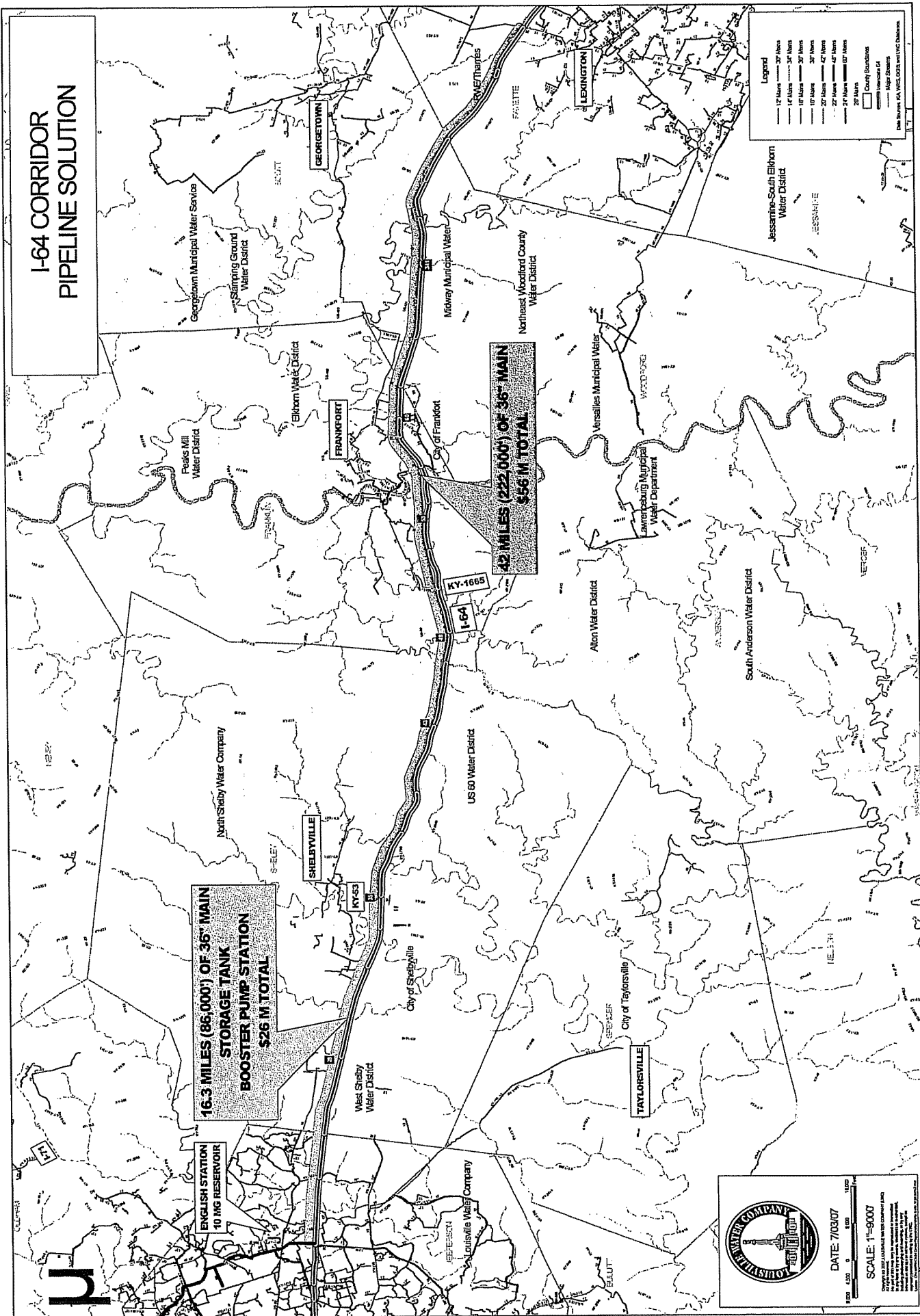
## **Interstate 64 Pipeline Solution**

- A 36- inch pipeline will provide up to 30 MGD of supply capacity.
- Other pipeline sizes are available:

<b><i>Size</i></b>	<b><i>Minimum Capacity</i></b>	<b><i>Minimum Take or Pay</i></b>
42-inch	31 MGD	6 MGD
36-inch	23 MGD	5 MGD
30-inch	16 MGD	3 MGD
24-inch	10 MGD	2 MGD

- The cost for an Interstate 64 pipeline from Jefferson County to Fayette County is estimated at \$ 82 million. LWC will build and fund the \$ 26 million portion from Jefferson County to KY Hwy 53 in Shelby County.

# I-64 CORRIDOR PIPELINE SOLUTION





## **Benefits of an Interstate 64 Pipeline Solution**

- Provides an unlimited source of supply from the Ohio River.
- Provides a low cost and timely regional solution.
- Is attractive for state and federal grants.
- Provides long term drought protection and a reliable, redundant source.
- Provides connectivity for water providers in the Central Kentucky Region.



## **Contact Information**

**Louisville Water Company**  
550 South Third Street  
Louisville, KY 40202

**Greg Heitzman**  
President  
502-569-3681  
gheitzman@lwcky.com

**Jim Smith**  
Infrastructure Planning Manager  
502-569-3687  
jsmith@lwcky.com

**Vince Guenthner**  
Government Affairs Manager  
502-569-3640  
vguenthner@lwcky.com