Supply of Finished Potable Water to the Bluegrass Water Supply Commission (BWSC)

December 15, 2005

<u>Delivery Point, Water Quality and Demand Options:</u> The Louisville Water Company (LWC) desires the point of delivery for finished water to be located in the vicinity of Interstate 64 and Highway 53. LWC's potable, finished water supply could be delivered at a hydraulic grade of 900-950 msl, and working pressure of 40-60 psi (ground elevation 810). The water supply will meet all state and federal drinking water standards. LWC will design, build, own, and operate the water transmission main, pump station and storage facilities to the point of delivery near KY Highway 53.

LWC will contribute the required capital to fully fund construction of a 10 mgd capacity delivery system terminating at KY Highway 53 for all of the supply options specified below. These facilities will consist of a 24-inch water main along Interstate 64 from the Snyder Freeway (Interstate 265) to KY Highway 53, a booster pump station in Jefferson County at Interstate 265 and a 2 million gallon storage facility at Highway 53 in Shelby County. The BWSC will be responsible for any additional costs of upsizing these facilities to meet the required reserved capacities specified. In consideration of such a capital commitment, LWC requires, at a minimum, a 50-year contract with renewal options.

In order to meet the demand criteria identified in your letter of November 14, 2005, LWC outlines the following options for consideration:

Option 1: Provide 6.2 mgd base rate of flow with maximum day design capacity of 31 mgd. LWC recommends the installation of a 42-inch water main along Interstate 64 from the Snyder Freeway (I-265) to Highway 53, a booster pump station in Jefferson County at Interstate 265 and a 6 million gallon storage facility at Highway 53 in Shelby County. LWC will design, build, own, and operate these facilities to the point of delivery at KY Highway 53. Alternatively, parallel 30-inch transmission facilities are recommended to reduce the higher operating risk and allow future maintenance while maintaining operations to deliver the base rate of flow. To ensure reliable service to meet this demand, improvements in LWC transmission, clear well and finished water pumping facilities will be needed. Costs for these improvements are estimated to be \$10 million.

As noted above, the BWSC will be responsible for the costs of upsizing these facilities from the base 10 mgd option to deliver the 31 MGD reserved capacity requested to KY Highway 53 in addition to the \$10 million required to upgrade LWC plant and core transmission facilities.

Option 2a: Provide 4 mgd base rate of flow with a maximum day design capacity of 20 mgd. LWC recommends the installation of a 36-inch water main along Interstate 64 from the Snyder Freeway (Interstate 265) to KY Highway 53, a booster pump station in Jefferson County at Interstate 265 and a 4 million gallon storage facility at KY Highway 53 in Shelby County. LWC will design, build, own, and operate these facilities to the point of delivery at KY Highway 53. As noted above, the BWSC will be responsible for the costs of upsizing these facilities from the base 10 mgd option to deliver the requested 20 MGD reserved capacity.

Option 2b: Provide 3 mgd base rate of flow with a maximum day design capacity of 15 mgd. LWC recommends the installation of a 30-inch water main along Interstate 64 from the Snyder Freeway (Interstate 265) to KY Highway 53, a booster pump station in Jefferson County at Interstate 265 and a 3 million gallon storage facility at KY Highway 53 in Shelby County. LWC will design, build, own, and operate these facilities to the point of delivery at KY Highway 53. As noted above, the BWSC

will be responsible for the costs of upsizing these facilities from the base 10 mgd option to deliver the requested 15 MGD reserved capacity.

Options 3 & 4: Provide 2 mgd base rate of flow with a maximum day design capacity of 10 mgd. This option requires installation of a 24-inch water main along Interstate 64 from the Snyder Freeway (Interstate 265) to KY Highway 53, a booster pump station in Jefferson County at Interstate 265 and a 2 million gallon storage facility at Highway 53 in Shelby County. LWC will fully fund, design, build own, and operate these facilities to the point of delivery at KY Highway 53.

The above options have been prepared from a preliminary engineering review of the project objectives outlined in your letter of November 14, 2005. We have not performed a detailed engineering or hydraulic analysis of these scenarios. The suggested scope of the project is intended to be a conservative approach to providing the water demand options identified. Further engineering design, hydraulic analysis, property/easement research, and review of construction procurement methods may yield opportunities for additional cost savings in the project. A construction scope of this magnitude will likely yield additional economies of scale, further reducing capital costs.

<u>Water Rate Methodology</u>: In addition to the capital components previously discussed, the rate for volumes of consumption described in your letter will be included in the final agreement, the terms and conditions of which would be negotiated by the parties. Based upon LWC staff's current authorization from the Board of Water Works, any contracted consumption over 1 mgd may be negotiated, based upon certain criteria, including peak demand factors, contract duration, and other terms and conditions. LWC will calculate the rate for this kind of water consumption by taking into consideration four elements: operating expenses, depreciation expenses, return on plant investment, and customer costs.

For the Commission's planning purposes, those rate elements yield the following imputed water rate based upon our most recent 2006 cost of service study:

Option 1 - Reserved capacity of 31 mgd, with minimum daily purchase of 6.2 mgd:

- The rate per thousand gallons for minimum daily purchase up to 6.2 mgd is \$2.70.
- The rate per thousand gallons above 6.2 mgd, but not exceeding the reserved capacity of 31 mgd, is \$0.57.
- The rate per thousand gallons above the reserved capacity of 31 mgd is \$1.63.

Option 2a: Reserved capacity of 20 mgd, with minimum daily purchase of 4 mgd:

- The rate per thousand gallons for minimum daily purchase up to 4 mgd is \$2.70.
- The rate per thousand gallons above 4 mgd but not exceeding the reserved capacity of 20 mgd is \$0.57.
- The rate per thousand gallons above the reserved capacity of 20 mgd is \$1.63.

Option 2b: Reserved capacity of 15 mgd, with minimum daily purchase of 3 mgd:

- The rate per thousand gallons for minimum daily purchase up to 3 mgd is \$2.70.
- The rate per thousand gallons above 3 mgd, but not exceeding the reserved capacity of 15 mgd, is \$0.57.
- The rate per thousand gallons above the reserved capacity of 15 mgd is \$1.63.

Option 3: Reserved capacity of 10 mgd, with minimum daily purchase of 2 mgd:

- The rate per thousand gallons for minimum daily purchase up to 2 mgd is \$2.70.
- The rate per thousand gallons above 2 mgd but not exceeding the reserved capacity of 10 mgd is \$0.57.
- The rate per thousand gallons above the reserved capacity of 10 mgd is \$1.63.

Option 4: Reserved capacity of 5 mgd, available capacity of 10 mgd, with minimum daily purchase of 2 mgd:

- The rate per thousand gallons for minimum daily purchase up to 2 mgd is \$1.67.
- The rate per thousand gallons above 2 mgd but not exceeding the reserved capacity of 5 mgd is \$0.57.
- The rate per thousand gallons above the reserved capacity of 5 mgd is \$1.63.

For all options, consumption above the requested reserved production capacity will be the new reserved production capacity for the next 60 months. The reserved capacity is the production capacity set aside for the exclusive use of the Bluegrass Water Supply Commission. Available capacity is Louisville Water Company's production capacity in excess of max day demands available equally to all LWC customers. It is the Company's intention to always maintain, at a minimum, a 15% available capacity above maximum day requirements to meet Kentucky Division of Water standards and future growth needs. The current maximum day production demand for LWC was 205 mgd set this summer on June 25, 2005. As a result of this new demand peak, LWC will conduct a production capacity analysis in 2006 to validate our current production capacity of a firm 240 mgd and identify any upgrades necessary to maintain a 15% available capacity above maximum day requirements. Any upgrades necessary will be integrated into LWC's five year capital improvement plan and executed as part of that plan.

<u>Timeline:</u> LWC believes construction of the required supply facilities for all of the options specified can be accomplished within three years of executing of a supply contract. The three year timeframe is based upon one year for facility design and right-of-way acquisition and two years for facility construction. Based on these estimates construction could be accomplished by the summer of 2009.

Further Consideration of Additional Option Alternatives

It is important to note that a lower rate per thousand gallons for the minimum daily purchase can be achieved by increasing the minimum daily purchase quantity or decreasing the amount of capacity reserved for each of the above options. Furthermore, Louisville Water Company would consider additional investment in these facilities based on a larger minimum daily purchase quantity.

Option	Reserved Capacity MGD	Minimum Daily Purchase MGD	Ratio of Reserved Capacity to Minimum Daily Purchase	Rate per Thousand Gallons for Minimum Daily Purchase
Additional Option A	5.0 MGD	2.5 MGD	2.0	\$1.46
Additional Option B	5.0 MGD	3.3 MGD	1.5	\$1.25
Additional Option C	4.0 MGD	2.0 MGD	2.0	\$1.46
Additional Option D	3.0 MGD	2.0 MGD	1.5	\$1.25

Next Steps: LWC staff would appreciate the opportunity to discuss this proposal with BWSC members at their earliest convenience. Future discussions will be needed to further define detailed engineering and construction parameters, among other things. We look forward to the opportunity to begin these discussions, which we believe will result in a mutually beneficial relationship. Any final agreement will need to be approved by the Louisville Water Company Board of Water Works and appropriate regulatory agencies. Mr. Jim Smith is our designated contact, and he can be reached at (502) 569-3687 or (502) 533-5110.