

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF: )  
 )  
 PROPOSED EXTENSION OF ADJUSTED STANDARD ) AS 2007-2  
 APPLICABLE TO ILLINOIS-AMERICAN ) (Adjusted Standard)  
 WATER COMPANY'S ALTON PUBLIC WATER )  
 SUPPLY FACILITY DISCHARGE )  
 TO THE MISSISSIPPI RIVER )  
 UNDER 35 ILL. ADM. CODE 304.124 AND 304.106 )

**TESTIMONY OF JEFFREY KAISER**

**WITNESS IDENTIFICATION AND BACKGROUND**

**Q. Please state your name and address.**

A. Jeffrey T. Kaiser. I live at 120 Forestview Drive, Belleville, Il 62220

**Q. By whom are you employed and what is your title?**

A. I am employed by Black & Veatch and hold the title of Project Manager in the Water division.

**Q. What are your responsibilities in that position?**

A. Management of project staff and project completion, oversight of technical work by the design team, design of critical project components, and client coordination for water and wastewater related projects.

**Q. Please explain your professional employment following your education.**

A. Following graduation from Washington University in St. Louis in 1986, I was employed by Havens and Emerson as a project engineer for water, wastewater, and environmental projects. At this time, I began working on projects for clients such as the St. Louis County Water Company, the Metropolitan St. Louis Sewer District and Illinois-American Water Company in addition to numerous other private and municipal clients in Missouri and Illinois. I have since worked for the engineering firms of Horner and Shifrin, Burns and McDonnell, and Earth

1 Tech prior to my current position at Black & Veatch. For each of those firms, my area of  
2 focus was project management and/or design of water and wastewater facility projects.  
3 I have completed planning and design projects for numerous water treatment facilities  
4 including the City of Chicago water treatment plants; Illinois-American Water facilities in  
5 Peoria, Pekin, Alton (previous plant), East St. Louis, Granite City, and Cairo; Missouri-  
6 American at the Central, South, and Meramec plants in St. Louis and in Jefferson City,  
7 Brunswick, St. Joseph, and Joplin; and other water supply, treatment, and distribution projects  
8 for the municipalities of Washington, O'Fallon, and St. Peters, Missouri, and O'Fallon,  
9 Illinois. I have also completed water supply projects for the Missouri Department of Natural  
10 Resources, the USEPA, and the USACE.

11 **Q. Are you professionally certified in any capacity?**

12 A. I am a registered Professional Engineer in Illinois, Missouri, Arkansas, and Indiana. I have  
13 been registered as a Professional Engineer since 1991.

14 **Q. Describe your project experience with water treatment facilities.**

15 A. My first water treatment plant related project 21 years ago involved the survey of lime sludge  
16 lagoons prior to and after cleaning to determine the volume of solids removed. Since that  
17 time, I have completed numerous projects at treatment plants ranging from planning studies to  
18 design of various plant components and new plants.

19 Illinois Projects: For the City of Chicago, I was the project manager and lead process engineer  
20 of a treatment plant evaluation and capital improvement planning effort for the Jardine and  
21 South Water Treatment Plants – two of the largest treatment plants in the world. I have  
22 completed numerous plant improvement design projects for Illinois-American Water  
23 including a major rehabilitation of the Granite City plant which included new chemical  
24 storage and feed facilities, rehab of the solids lagoon recycling system, filter improvements,

1 and new high service pumping. I directed two projects at Illinois-American's Cairo plant  
2 involving the evaluation of the plant residuals handling as well as design of filter to waste and  
3 filter surface wash improvements. I managed a project at the Illinois-American Water East St.  
4 Louis Plant to provide new chemical storage and feed facilities as well as measurement and  
5 de-chlorination of their plant discharge to the Mississippi River. I have served as project  
6 manager and lead design engineer for numerous smaller projects at Illinois-American's East  
7 St. Louis, Granite City, and the previous Alton plants for various chemical feed, pumping, and  
8 treatment process improvements. I also completed an evaluation study of a new water supply  
9 and treatment plant for the City of O'Fallon, IL.

10 Missouri Projects: I have also served as a project manager and/or lead design engineer on  
11 numerous treatment plant projects in Missouri including various plant improvement and  
12 equipment replacement projects for St. Louis County Water (now Missouri-American Water)  
13 at three of their plants, residuals handling studies for Missouri-American's St. Joseph water  
14 treatment plant and the City of St. Peters Spencer Creek water treatment plant, a lime  
15 softening evaluation at Missouri-American Water's Brunswick Missouri facility, process  
16 equipment replacement project at the Jefferson City Missouri WTP, and a new 6 million  
17 gallons per day membrane softening plant for the City of O'Fallon, Missouri.

18 **Q. More specifically, what is your experience with large water treatment facilities on large**  
19 **rivers?**

20 A. I have completed projects related to process design and residuals handling at Illinois-  
21 American's Granite City and East St. Louis water treatment plants (Mississippi River), Cairo  
22 water treatment plant (Ohio River), Missouri-American Water Company's Central and  
23 Jefferson City water treatment plants (Missouri River), the City of St. Peters Spencer Creek  
24 Water Treatment plant (discharges to a tributary creek to the Mississippi River), and the City

1 of O'Fallon, Missouri (discharge to the Missouri River). Three of these facilities (Missouri-  
2 American's Central Plant and Jefferson City Plant, and O'Fallon Missouri's plant) discharge  
3 to the Missouri River without treatment.

4 **KNOWLEDGE OF THE PIASA CREEK WATERSHED PROJECT AND WATER**

5 **TREATMENT PLANT EFFLUENT ISSUES**

6 **Q. Are you familiar with the offset project involving the Illinois-American Water**  
7 **Company's Alton plant and the Piasa Creek Watershed Project?**

8 A. Yes.

9 **Q. How did you come to be familiar with that plant and the Piasa Creek Watershed**  
10 **Project?**

11 A. My firm was retained in 2006 to examine a host of issues related to Illinois-American Water's  
12 permitted discharge from the Alton plant and the soil conservation projects undertaken by  
13 GRLT at the Piasa Creek Watershed Project. I headed up the project for Black & Veatch.  
14 Our work culminated in a report entitled "Evaluation of Residuals Discharged from Illinois-  
15 American Water Company's Alton Water Treatment," which I understand has been submitted  
16 to the Board as an exhibit to the Amended Petition.

17 **Q. Without getting into specific details or findings, Mr. Kaiser, please explain in general the**  
18 **work that you performed in connection with that project.**

19 A. We examined the facility's NPDES Permit, the facility's effluent sampling protocol, and the  
20 facility's monthly NPDES monitoring results. We calculated the facility's average yearly  
21 discharge of TSS and iron based upon the monthly monitoring results. In addition, we visited  
22 the Alton plant to conduct additional sampling of filter backwash cycles and Superpulsator  
23 blowdown events. We analyzed and evaluated those samples as part of our examination.

1 We also examined a great deal of data generated by GRLT with respect to the Piasa Creek  
2 Watershed Project. We studied that data in order to determine the net yearly decrease of iron  
3 and TSS in the Mississippi River. We also sampled and evaluated the different soil types  
4 present in the Piasa Creek Watershed, as determined by the U.S. Department of Agriculture's  
5 Natural Resources Conservation Service. We used this data to evaluate the volume of TSS  
6 and total iron discharged to the Mississippi River each year from the Alton facility and  
7 compared those amounts to the volume of TSS and total iron saved by the Piasa Creek  
8 Watershed Project to determine the success of the Piasa Creek Watershed Project.

9 **Q. What conclusions did you reach as a result of that study?**

10 A. We concluded that the Piasa Creek Watershed Project saved 6,691 tons of TSS each year, and  
11 Illinois-American Water's discharge contains an average of 1,333 tons of TSS each year.

12 **Q. Please continue with your summary of knowledge of the Alton facility and the Piasa  
13 Creek Watershed Project.**

14 A. We also performed an evaluation of the total iron loading by the Alton plant and the total iron  
15 savings from the Piasa Creek Watershed Project. Again, we examined the results of monthly  
16 effluent monitoring performed by the plant pursuant to its NPDES Permit. But in addition,  
17 Black & Veatch conducted its own sampling from the plant's effluent and from some projects  
18 in the Piasa Creek Watershed Project. We did this in order to determine the total iron savings.

19 **Q. What conclusions did you reach with respect to the total iron savings?**

20 A. The Piasa Creek Watershed Project saves approximately 79 tons of iron per year from  
21 entering the Mississippi River. The Alton plant contributes approximately 9 tons of total iron  
22 per year to the River. So the offset for total iron is approximately 8.8 to 1.

23 **PURPOSE OF TESTIMONY**

24 **Q. What is the purpose of your testimony in this case?**

1 A. The purpose of my testimony is to compare and contrast the sediment reduction effort of  
2 Illinois-American Water Company's Alton plant (through the Piasa Creek Watershed Project)  
3 with the sediment reduction efforts of six point sources identified by the Agency in its  
4 Recommendation. In doing so, I will: (1) explain that the conditions necessary to maintain a  
5 viable water supply on the Mississippi River are much different from those necessary in lakes,  
6 which are reservoirs, essentially; (2) explain that the six point sources identified by the  
7 Agency have used state and/or federal funds to conduct soil conservation measures; (3)  
8 examine facts related to each of the six point sources to show the differences between their  
9 sediment reduction efforts, which are a matter of business necessity or even survival in some  
10 cases and Illinois-American Water's efforts, which are not a matter of business necessity; and  
11 (4) address an Agency allegation that Illinois-American Water is seeking to avoid what other  
12 water treatment plants do to achieve compliance with the state's effluent standards.

13 **FAMILIARITY WITH THE AGENCY'S RECOMMENDATION**

14 **Q. Have you examined Illinois EPA's Recommendation filed in this case?**

15 A. Yes.

16 **Q. What particular portion or portions of the Recommendation did you examine?**

17 A. The portion in which Illinois EPA contends that six point sources in Illinois treat their  
18 permitted discharge and also engage in soil conservation projects without the benefit of an  
19 adjusted standard. The Agency's arguments on this subject appear on pages 8 and 9 of the  
20 Recommendation.

21 **Q. Explain the examination that you conducted.**

22 A. I compared the circumstances surrounding IAWC's effluent project and its conservation  
23 measures in the Piasa Creek Watershed, with the circumstances at the six facilities mentioned  
24 by the Agency, with a critical view toward the treatment process, the receiving waters, the

1 reasons for conducting the conservation projects, and the possible environmental impact of the  
2 projects.

3 **THE POINT SOURCE ILLUSTRATIONS CITED IN THE AGENCY'S**

4 **RECOMMENDATION ARE NOT COMPARABLE TO ILLINOIS-AMERICAN WATER'S**

5 **ALTON FACILITY**

6 **Q. Before we get into a specific analysis of the six point sources cited by the Agency, do you**  
7 **have any general principles to offer the Board that apply to all six of the point sources?**

8 A. Yes. There is one major point of distinction between the Alton plant and the six facilities  
9 identified by the Agency. The Alton plant draws its source water from the Mississippi River,  
10 whereas the facilities identified by the Agency draw their source water from man-made lakes.  
11 The difference between man-made lakes and the Mississippi River are so significant that any  
12 comparison is essentially "apples-to-oranges" when it comes to sedimentation.

13 **Q. What are the differences?**

14 A. Problems with sedimentation, nutrient enrichment, algae blooms and potentially toxic  
15 agricultural runoff are more pronounced in lakes than large rivers. For that reason, it is  
16 essential for utilities to take actions against those problems in order to ensure the safety and  
17 longevity of their water supply. In the case of the Mississippi River at Alton, Illinois-  
18 American Water does not have to deal with problems related to sedimentation, nutrient  
19 enrichment, algae blooms or toxic agricultural runoff as a means of protecting its water  
20 supply. The Mississippi River is a large river with an average current of 3 miles per hour and  
21 average flow of 141452 cfs (63 million gpm). Sedimentation at the point of Illinois-American  
22 Water's intake pipe is not a critical concern, and neither are the other factors.

23 **Q. Are you saying that utilities which draw their source water from lakes have to deal with**  
24 **sedimentation as a means of self-preservation?**

1 A. Yes. A lake's ability to provide drinking water of sufficient quantity and acceptable quality is  
2 frequently threatened by excessive sedimentation and problems related with sedimentation.  
3 Utilities commonly have to take action against sedimentation for self-preservation purposes  
4 when their source water is a lake.

5 **Q. Based upon your knowledge of the Alton facility, will Illinois-American Water have to**  
6 **engage in soil conservation measures as a matter of self-preservation?**

7 A. I do not believe that will ever be the case.

8 **THE SIX UTILITIES CITED BY THE AGENCY USE FEDERAL AND/OR STATE FUNDS**  
9 **TO CONDUCT THEIR SOIL CONSERVATION MEASURES**

10 **Q. Are there any other circumstances common to the six point sources cited by the Agency**  
11 **which are distinguishable from the circumstances at the Alton plant?**

12 A. Yes. Every lake connected to these six utilities has encountered problems coming from  
13 pollution by non-point sources. These problems have been the result of erosion and runoff  
14 from the watershed. In Illinois, these watersheds are primarily agricultural. The problems  
15 may be basically physical, as in the case of Lake Decatur's loss of water capacity because of  
16 extreme sedimentation, or they may be chemical, as in the case of Otter Lake's contamination  
17 by nutrients such as Phosphorus or Nitrogen.

18 The source of funding to address sedimentation issues is another common factor. At each  
19 lake, money has been provided by the state of Illinois and in some cases by the United States  
20 for studies or remediation. In particular, the Illinois Clean Lakes Program (ICLP) provides  
21 grants up to \$75,000 for study and planning (Phase I), and up to \$300,000 for implementation  
22 of remedial measures (Phase II). Section 319 of the Clean Water Act provides for federal  
23 funding to states to minimize non-point source pollution in bodies of water. All six lakes  
24 cited by the Agency have received funding through these programs. The recipients of the



1 funding are either the facilities themselves or their partner soil and water conservation  
2 districts.

3 **Q. Is there any other basis of comparison which is common to all of the six point sources**  
4 **cited by the Agency?**

5 A. Yes. All six lakes are impaired in ways that would detrimentally affect water treatment. Five  
6 of them serve drinking water treatment plants, by the way. The Mississippi River at Alton is  
7 not impaired, at least not by sedimentation or nutrients.

8 **OTTER LAKE (OTTER LAKE WATER COMMISSION)**

9 **Q. Let's turn to the individual point sources identified by the Agency, Mr. Kaiser. Please**  
10 **start with Otter Lake. What are the circumstances connected with Otter Lake that**  
11 **distinguish the sediment reduction efforts there from the efforts of Illinois-American**  
12 **Water and the Piasa Creek Watershed Project?**

13 A. According to Dennis Ross of the Otter Lake Water Commission, the treatment plant there uses  
14 a lime softening water treatment process. Illinois-American Water does not use lime  
15 softening in its process at Alton. This is a significant difference, because significant amounts  
16 of lime solids would be found in the effluent of the water treatment plant at Otter Lake if  
17 treatment were not conducted. The lime deposits would add significantly to the TSS loading  
18 into Otter Lake.

19 **Q. Can you imagine a scenario where direct discharge into Otter Lake would be an**  
20 **acceptable alternative?**

21 A. No, I cannot. I am not aware of any water treatment plant discharging untreated waste water  
22 with lime solids to a lake. Quite simply, the lime would greatly increase sedimentation in  
23 Otter Lake, exacerbating the sedimentation problem and causing a constant battle to reduce  
24 sedimentation through dredging or other means.

1 **Q. Would it make more sense to treat the waste water through the use of lagoons?**

2 A. Absolutely. Lime softening plants on lakes would be better off constructing their own  
3 lagoons and dredging from those manmade structures rather than dredging out of the lake  
4 from which they draw their source water.

5 **Q. What did you determine about the condition of Otter Lake?**

6 A. Otter Lake is a 765 acre lake in Macoupin County, formed in 1968 by damming Otter Creek.  
7 It receives water from a 13,000 acre watershed that consists primarily of agricultural land.  
8 The lake is owned and managed by the Otter Lake Water Commission, which serves 17,000  
9 drinking water customers. The lake is listed by the USEPA as an impaired water body for  
10 excessive algal growth and manganese content. Both of those impairments derive directly  
11 from soil runoff.

12 **Q. Has this water company encountered any production problems as a result of the water  
13 quality in Otter Lake?**

14 A. Yes. The Otter Lake Water Commission was barred by USEPA in 1993 from providing  
15 public drinking water because of high levels of Atrazine. In addition, algae blooms hampered  
16 water treatment in 2005 and 2006. At that time, the commission issued public statements  
17 warning of taste and odor problems in the water and of the potential toxicity of decaying  
18 algae. Again, algae blooms are stimulated by agricultural nutrients that enter the lake with  
19 heavy loads of silt.

20 **Q. What did you learn about the sediment reduction efforts of the Otter Lake Water  
21 Commission?**

22 A. According to Robert Dill of the Otter Lake Water Commission, the Commission plants 500-  
23 800 trees per year in the Lake's marginal areas, places riprap along unvegetated shoreline, and  
24 constructs catchment basins in agricultural areas of the watershed. The Commission, along

1 with other stakeholders, follows a watershed management plan to identify and control  
2 pollutants entering the lake.

3 **Q. Has the Commission funded these sediment reduction efforts on its own?**

4 A. No. This is one of the point sources that have used state and federal funding. The Otter Lake  
5 Water Commission received a Phase I ICLP grant of \$57,670 in 1996. In 1999, the  
6 Commission received a Phase II ICLP grant of \$165,000. . An in-lake sedimentation control  
7 project is being funded in part by \$560,000 of Federal Section 319 money.

8 **Q. Is there a basis for comparison between the sediment reduction offset trading underway  
9 in the Piasa Creek Watershed and the sediment reduction efforts being performed on  
10 Otter Lake?**

11 A. In my opinion, no. As I have stated before, you compare apples-to-oranges when you  
12 compare a lake to a large river like the Mississippi. In addition, though, Otter Lake is not  
13 comparable because the water company there uses lime softening in its treatment process. So,  
14 the Otter Lake Water Commission would actually be adding solids to the lake from its own  
15 process, which is not done to any meaningful degree at the Alton plant. Otter Lake is also  
16 distinguishable because it is an impaired water resulting at least indirectly from nutrients  
17 entering the lake with heavy loads of silt. Finally, the Otter Lake Water Commission has used  
18 federal and state money in its sediment reduction efforts, which has not been the case with the  
19 Illinois-American Water Company. In the final analysis, the Otter Lake Water Commission  
20 has no option but to treat its effluent.

21 **CLINTON LAKE (AMERGEN ENERGY)**

22 **Q. Let's turn to the situation at Clinton Lake. What did you learn about the soil  
23 conservation efforts there?**

1 A. Clinton Lake is privately owned by the Amergen Corporation, which operates the Clinton  
2 Power Station, a nuclear power plant. The lake was constructed to provide the plant with  
3 cooling water and is leased to the State of Illinois as part of the Clinton Lake State Recreation  
4 Area. Unlike most of the other utilities cited by the Agency, Amergen has spent its own funds  
5 at the lake. It has spent an average of \$206,000 per year since 2003 to survey and monitor  
6 erosion and sedimentation in the lake. However, Amergen has not undertaken widespread soil  
7 conservation measures. A comprehensive management plan was submitted by the Dewitt  
8 County Soil and Conservation District in August, 2007 to the Illinois EPA for management of  
9 the lake's watershed.

10 **Q. Do you find Amergen's situation at Clinton Lake to be comparable to the situation at the**  
11 **Alton water treatment plant owned by Illinois-American Water?**

12 A. No. The situation at Clinton Lake is distinguishable because it is not a drinking water facility.  
13 Amergen operates a nuclear power plant there. Also, Clinton Lake is privately owned by  
14 Amergen. So, any comparison to the Alton Water Treatment Plant is difficult to make because  
15 Amergen is not using lake water as a drinking water source, and Amergen is protecting its  
16 own investment. Furthermore, in my opinion, sedimentation, nutrient loading and agricultural  
17 runoff have little effect on Amergen's operations. In addition, Amergen has done little to  
18 control sedimentation, nutrient loading and agricultural runoff. They have conducted studies,  
19 but have not, to my knowledge, implemented any control measures to date.

20 **LAKE SPRINGFIELD (CITY OF SPRINGFIELD WATER TREATMENT PLANT—CITY**  
21 **WATER LIGHT & POWER)**

22 **Q. I would like to focus now on Lake Springfield. Please describe the situation at that**  
23 **lake—its size and usage.**

1 A. Lake Springfield was constructed in 1935 by damming Sugar Creek. It has three purposes.  
2 First, it serves as a municipal water supply. Second, it provides a source of cooling water for  
3 the coal-fired power plant operated by City Water Light & Power. Finally, the lake is a  
4 source of recreation by residential users who have houses on its shores.

5 **Q. What is it about Lake Springfield, if anything, that distinguishes the situation there from**  
6 **the Mississippi River at Alton?**

7 A. There are several distinguishing factors. First, CWL&P uses lime softening in its treatment  
8 process. That factor, alone, distinguishes the situation at Lake Springfield from the situation  
9 on the Mississippi River at Alton. As I said previously with respect to Otter Lake, it would be  
10 impractical for CWL&P to discharge untreated waste water into Lake Springfield because the  
11 utility would be adding a considerable amount of solids to the lake.

12 **Q. Is there a sedimentation problem at Lake Springfield?**

13 A. Absolutely. The lake is considered impaired by USEPA. High priority impairments include  
14 total suspended solids and total Phosphorus. Both impairments come from excessive  
15 agricultural runoff. The Mississippi River does not have these impairments at Alton.

16 **Q. Did you examine the soil conservation measures of CWL&P?**

17 A. Yes, I did. The utility has undertaken aggressive erosion control practices from the time the  
18 lake was built. But, unlike the situation at Alton, these conservation measures are essential to  
19 the quality and longevity of the City's drinking water supply.

20 **Q. Has CWL&P used its own funding for these soil conservation projects?**

21 A. Not entirely. \$403,314 of Federal and Illinois State funds were used for the Lake Springfield  
22 Watershed Best Management Practices Implementation from 2003 to 2006. This project  
23 installed 600 acres of filter strips along feeder streams in the Lake Springfield watershed.  
24 Furthermore, an unknown amount of Federal Section 319 funds have been allotted to several

1 erosion control and non-point-source pollution control projects in the watershed. These  
2 projects were undertaken by some of the City's conservation partners, including the  
3 Sangamon County Soil and Water Conservation District and Lincoln Memorial Garden.

4 **LAKE DECATUR (CITY OF DECATUR WATER TREATMENT PLANT)**

5 **Q. Moving on, please explain what you learned about Lake Decatur, and the use of that**  
6 **lake for source water by the City of Decatur's Water Treatment Plant.**

7 A. Lake Decatur was constructed by the City of Decatur in 1919 by impounding the Sangamon  
8 River. It was constructed to supply industrial and municipal users with water and to ensure an  
9 adequate supply in the event of severe drought. Since its construction, Lake Decatur has  
10 faced major problems with sedimentation. By 1946, more than 25% of its water storage  
11 capacity had been reduced. In 1988, one of the lake's basins became so shallow that the water  
12 treatment plant could not pump water from it. So, the City and Macon County have been  
13 involved in soil conservation efforts since 1941.

14 **Q. Compare that situation to the situation at Alton.**

15 A. Well, the differences are obvious. The Alton plant constructed in 2000 has never encountered  
16 sedimentation problems which threatened its water supply. To my knowledge, the "old"  
17 Alton plant did not have sedimentation problems either. It was overwhelmed by flooding on  
18 some occasions, but it never had sedimentation problems related to its intake of source water.

19 **Q. Is Lake Decatur an impaired waterway?**

20 A. Yes. It is considered impaired for a number of pollutants. High priority impairments include  
21 total suspended solids and nitrates.

22 **Q. What sort of soil conservation efforts have been undertaken by the City of Decatur?**

1 A. According to Tim Hoffman of the Macon County Soil and Water Conservation District, the  
2 City spends \$170,000 annually for staff and soil conservation projects undertaken by the  
3 District. The City estimates that it saves \$4 for every \$1 it invests in conservation measures.

4 **Q. Can you distinguish their soil conservation efforts from the efforts being conducted at**  
5 **the Piasa Creek Watershed Project?**

6 A. Of course. The City spends money for soil conservation as a business necessity in order to  
7 preserve its source of water. Since the City saves \$4 for every \$1 it invests in conservation  
8 measures, it is receiving a return on its investment, and a considerable one at that. Illinois-  
9 American Water does not invest in the Piasa Creek Watershed Project as a matter of business  
10 necessity.

11 **Q. Are there any other distinguishing factors between the City of Decatur's water**  
12 **treatment plant and Illinois-American Water's plant in Alton?**

13 A. Yes. The Decatur plant uses lime softening in its treatment process. As I have mentioned  
14 before, Illinois-American Water does not use lime softening at the Alton plant. It would be  
15 impractical for the city of Decatur to discharge untreated effluent into Lake Decatur, which is  
16 already impaired by TSS, because it would be adding considerably more solids than it  
17 withdrew from the lake. Illinois-American Water does not add solids to the Mississippi River  
18 to any meaningful degree.

19 **KINKAID LAKE (KINKAID AREA WATER SYSTEM)**

20 **Q. Please describe Kinkaid Lake and the use of Kinkaid Lake as a water supply by the**  
21 **Kinkaid Area Water System.**

22 A. Kinkaid Lake is a 2,850 acre lake built in 1968 by damming the Kinkaid Creek. The quality  
23 of water is managed by the Kinkaid-Reed Creek Conservation District, which is dedicated to  
24 the protection of the water supply there.

1 **Q. Is Kinkaid Lake an impaired waterway?**

2 A. Yes, it is. It is considered to be impaired by pH, Manganese, Mercury, and Sedimentation.  
3 The pH impairment is a result of Phosphorus runoff from surrounding farmland. According to  
4 David Fligor of the Kinkaid-Reed Conservancy District, the upper reaches of the lake have  
5 been filled with approximately 1 million cubic yards of sediment since its construction, and  
6 the management of the lake has been one of constant fighting against erosion and  
7 sedimentation.

8 **Q. What soil conservation measures are conducted at Kinkaid Lake?**

9 A. According to David Fligor, The Kinkaid-Reed Creek Conservation District spends about  
10 \$80,000 per year for soil conservation measures. Those measures include six miles of  
11 shoreline stabilization projects, promotion of no-till agriculture, and educational programs.

12 **Q. Does the Kinkaid Area Water System fund all of those conservation measures?**

13 A. No. Many conservation programs are funded by the State of Illinois, USEPA, Illinois DNR  
14 and the Natural Resource Conservation Service. Kinkaid-Reed's Creek Conservancy District  
15 received an ICLP Phase I grant of \$61,500 in 2003 and a Phase II grant of \$300,000 in 2006.  
16 Federal Section 319 funding of \$883,000 will be applied to the conservancy district's TMDL  
17 (Total Maximum Daily Load) Best Management Practices Implementation, a project  
18 involving the construction of sediment basins, gully stabilization, and shoreline stabilization.

19 **GOVERNOR BOND LAKE (CITY OF GREENVILLE WATER TREATMENT PLANT)**

20 **Q. That leaves one site cited by the Agency in its Recommendation—Governor Bond Lake.  
21 What did you learn about Governor Bond Lake and its use by the City of Greenville?**

22 A. According to Matt Wilman of the City of Greenville, Governor Bond Lake was built in 1969.  
23 It is a 775 acre lake, owned by the City of Greenville. The Greenville Water Treatment Plant  
24 uses water from the lake for its public drinking water supply.



1 **Q. What are the distinguishing factors, if any, between Governor Bond Lake and the**  
2 **Mississippi River at Alton?**

3 A. The lake is surrounded by agricultural areas that contribute to sedimentation. Fifty percent of  
4 the upper lake's capacity has been filled with sediment since construction. The lake is  
5 considered impaired and the high priority impairments include TSS. As I have said before,  
6 none of these conditions exist in the Mississippi River at Alton.

7 **Q. Are there any distinguishing factors between the water treatment process at the Alton**  
8 **plant and the water treatment process employed by the Greenville Water Treatment**  
9 **Plant?**

10 A. Yes. According to Matt Wilman, the Water Treatment Plant uses lime softening in its  
11 treatment process. So, it would be impractical, if not impossible, for the City of Greenville to  
12 discharge untreated wastewater into a small reservoir like Governor Bond Lake. The City is  
13 already in a constant battle with sedimentation, and the discharge of wastewater containing  
14 lime would make that battle even more difficult to wage. Illinois-American Water does not  
15 face that situation at Alton because it does not have a sedimentation problem to begin with,  
16 and it does not "contribute" to sedimentation through the addition of lime through its effluent.

17 **Q. Does the City of Greenville spend only its own funds for sedimentation control or does it**  
18 **receive help from public funding?**

19 A. The City receives public funds. In 1999, the city received an ICLP Phase I grant of \$51,446.  
20 In 2002 the city received a Phase II grant of \$300,000. Section 319 Federal funding was used  
21 for a TMDL Best Management Practices Implementation in 2001, Construction of a  
22 Stormwater Basin in 2003, and \$223,000 of Federal money funded a Lake Shoreline  
23 Stabilization project in 2005.

1 **ATTACHED EXHIBIT: TABLE OF PROJECTS FUNDED BY ILLINOIS EPA THROUGH**  
2 **THE ILLINOIS CLEAN LAKES PROGRAM**

3 **Q. Mr. Kaiser, you are attaching a document to your testimony for the Board's benefit.**  
4 **Please identify that document and explain its relevance.**

5 A. The document is a table of projects which have been funded through the Illinois Clean Lakes  
6 Program by Illinois EPA. It is a brief summary of ICLP projects. It was provided to me by an  
7 employee in the Bureau of Water at the IEPA. I used this document to verify ICLP funding  
8 and match funding provided at Otter Lake, Governor Bond Lake and Lake Kinkaid.

9 By Mr. Hiles: At this time, I move for admission into evidence, the table entitled "Illinois EPA  
10 Illinois Clean Lakes Project Summary\_6 August, 2007"

11 **ILLINOIS-AMERICAN WATER IS NOT SEEKING TO AVOID THE TREATMENT**  
12 **OBLIGATIONS IMPOSED ON OTHER WATER TREATMENT PLANTS AND IS NOT**  
13 **GAINING A COMPETITIVE ADVANTAGE**

14 **Q. Mr. Kaiser, I am going to read to you a statement contained in the Agency's**  
15 **Recommendation. It is found in Paragraph 14 of the Recommendation, and it is as**  
16 **follows: "Illinois-American is thus seeking to avoid what other facilities in the business**  
17 **of providing drinking water do to achieve compliance with the state's effluent**  
18 **standards." Based upon your examination of the six water treatment plants cited by the**  
19 **Agency, do you agree?**

20 A. No.

21 **Q. Why not?**

22 A. I have examined the circumstances applicable to the six water plants cited by the Agency. All  
23 six of them treat their wastewater out of business necessity, in my opinion. Like Illinois-  
24 American Water, a single water body serves as a source of water supply and (potentially)

1 would be the discharge point for treated or (in the case of Illinois-American Water) untreated  
2 waste water. The similarities end there. The six water treatment plants cited by the Agency  
3 really have no choice but to treat their waste water. They do it out of business necessity  
4 because their effluent goes into a reservoir highly susceptible to sedimentation. Stated  
5 differently, if the state of Illinois did not have effluent standards for TSS, I believe that these  
6 six water plants cited by the agency would still have to treat their waste water. Four of the six  
7 water treatment plants use lime softening in their treatment processes, which would only  
8 exacerbate sedimentation in the reservoirs from which they draw water. Illinois-American  
9 Water does not use a lime softening process at its Alton plant. So, I consider any comparison  
10 of the Alton plant with these six water treatment plants to be a practical impossibility.

11 I also want to express another opinion about the statement you read from the Agency's  
12 recommendation. Although the statement does not directly say this, there is an implied  
13 allegation that Illinois-American Water is achieving a competitive benefit over the other five  
14 water companies. I have spent most of my career working with water treatment plants and  
15 waste water treatment plants. Many water treatment plants are publicly regulated utilities.  
16 They do not compete against each other. Their rates are set by public service commissions  
17 which, in Illinois, means the Illinois Commerce Commission. To my knowledge, there is  
18 absolutely no competition between the Alton plant of Illinois-American Water and the City  
19 Water Light & Power facility in Springfield—or with any of the other water treatment plants  
20 cited by the Agency. These plants all serve their own discreet customer base, which have no  
21 areas of intersection with each other.

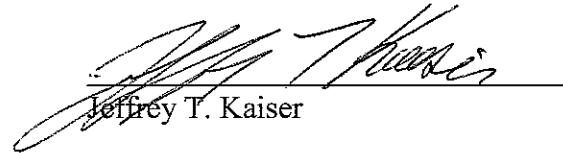
22 I also find the Agency's statement puzzling for another reason: All six facilities mentioned by  
23 the Agency receive state and/or federal funding to undertake sedimentation reduction efforts.  
24 At the City of Decatur, expenditures for soil conservation measures are an investment which

1 yields a return. According to the Macon County Soil and Water Conservation District, the  
2 city saves \$4 for every \$1 it invests in conservation measures. To my knowledge, Illinois-  
3 American Water is not the beneficiary of state or federal funding with respect to the Piasa  
4 Creek Watershed Project. Illinois-American Water funds 100% of its soil conservation  
5 measures, which cuts contrary to allegations that it is obtaining a competitive advantage.

6 **Q. Thank you for your testimony in this case, Mr. Kaiser.**

7 A. You're welcome.

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9  
10  
11  
12



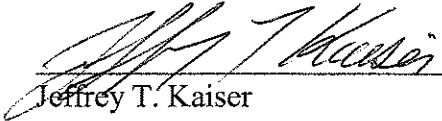
Jeffrey T. Kaiser

STATE OF MISSOURI            )  
  )  
CITY OF SAINT LOUIS        )

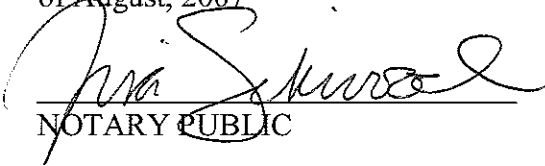
**AFFIDAVIT**

I, Jeffrey T. Kaiser, after being duly sworn on oath, state that the foregoing Testimony is true and correct to the best of my knowledge and belief.

FURTHER AFFIANT SAYETH NOT.

  
\_\_\_\_\_  
Jeffrey T. Kaiser

SUBSCRIBED AND SWORN to  
before me this 24 day  
of August, 2007

  
\_\_\_\_\_  
NOTARY PUBLIC

