

**IAWC EXHIBIT NO. BLS-1.0**

**ILLINOIS COMMERCE COMMISSION**

**DOCKET NO. 07-0371**

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**DIRECT TESTIMONY OF BARRY L. SUITS**

**ILLINOIS-AMERICAN WATER COMPANY**

1 **I. WITNESS IDENTIFICATION AND BACKGROUND**

2 **Q1. Will you please state your name, business address, telephone number, and e-**  
3 **mail address for the record?**

4 A. Barry L. Suits. My business address is 201 Devonshire Drive, Champaign, IL  
5 61820. My telephone number is 217-373-3247. My e-mail address is  
6 barry.suits@amwater.com.

7 **Q2. What is your position with Illinois-American Water Company ("Company"**  
8 **or "IAWC")?**

9 A. I am the Network Operations Manager in IAWC's Champaign County District  
10 (the "Champaign District").

11 **Q3. How long have you been associated with the Company?**

12 A. I became an employee of the Company in 1999 when the Company acquired  
13 Northern Illinois Water Corporation. Although I left the Company in 2004, I  
14 subsequently returned to the Company in 2005.

15 **Q4. Would you give us a summary of your education and work experience?**

16 A. I am a graduate of the University of Illinois with a Bachelor of Science Degree in  
17 Civil Engineering. I worked as a Resident Engineer for the Illinois Department of  
18 Transportation District 5 and as a Civil Engineer for State Farm Insurance  
19 Companies prior to joining Northern Illinois Water Corporation in 1993 as a  
20 Project Engineer. In October 1994, I was promoted to the position of Engineering  
21 Supervisor. In September, 1999, I was promoted to the position of Operations  
22 Manager for the Champaign District, a position I held until my resignation in July

23 2004. I returned to the Company in July 2005 in my current position of Network  
24 Operations Manager in the Champaign District.

25 **Q5. Would you describe the Company?**

26 A. IAWC is a corporation organized and existing under and by virtue of the laws of  
27 the State of Illinois and is a public utility within the meaning of the Public  
28 Utilities Act ("Act") and is engaged in the business of furnishing potable water  
29 and sanitary sewer service to the public of the State of Illinois. IAWC has its  
30 principal office in Belleville, Illinois. At present, IAWC provides service to  
31 approximately 281,000 water and 31,000 wastewater customers in all areas of the  
32 state. In southern Illinois, for example, we serve Cairo, East St. Louis, Belleville,  
33 Granite City and Alton. In central Illinois we serve Lincoln, Pekin, Peoria,  
34 Champaign-Urbana, Pontiac and Streator. In northern Illinois, we serve parts of  
35 the southwest suburbs of Chicago, along with Sterling.

36 **Q6. Are you familiar with the Petition filed by IAWC in this proceeding?**

37 A. Yes.

38 **II. PURPOSE OF TESTIMONY**

39 **Q7. What is the purpose of your testimony in this proceeding?**

40 A. The purpose of my testimony is to discuss and familiarize the Commission with  
41 the Champaign District Water Treatment Facility (the "Champaign Facility"), one  
42 of the capital projects which will be financed as discussed in the Petition. In the  
43 Petition, the Company is requesting that the Commission grant IAWC authority to  
44 issue long-term debt in the amount of up to \$28.5 million during the years of  
45 2007, 2008 and 2009. This long-term financing is necessary to enable the

46 Company to finance necessary facility additions and capital improvements. In his  
47 testimony, Mr. Hoffman discusses the Company's plans with respect to timing and  
48 amounts of long-term debt issuance during 2007, 2008 and 2009 and provides  
49 additional information in support of the Petition. Mr. Hoffman also explains that  
50 the Company plans to obtain up to \$22.5 million of additional paid-in-capital  
51 from its parent to fund these projects.

52 **III. DISCUSSION OF THE NEW CHAMPAIGN FACILITY**

53 **Q8. Please summarize your testimony regarding the Champaign Facility.**

54 A. The primary facility addition that the Company intends to finance is the new  
55 Champaign Facility . Growth in the City of Champaign ("Champaign") area has  
56 caused peak maximum day water demand to approach the rated capacity of the  
57 existing Champaign water treatment facilities, the East Water Treatment Facility  
58 ("East WTF") and the West Water Treatment Facility ("West WTF"). As a result,  
59 after conducting studies and analysis, IAWC has determined that it will be  
60 necessary to build new capacity. My testimony explains (i) the background of the  
61 existing system; (ii) the need for the new capacity, (iii) the need for a new source  
62 of water supply, (iv) the proposed design and construction of the Champaign  
63 Facility, and (v) the alternatives considered to the Champaign Facility.

64 **Q9. Describe the Champaign system.**

65 A. IAWC serves a population of approximately 124,000 in the Champaign area  
66 based on the 2000 census data. Approximately 92 percent of the Champaign  
67 customer base is residential, 6 percent is commercial, and the remainder consists  
68 of fire services, industrial users and "other" public authorities including the

69 University of Illinois. The Champaign District provided an average of 22.1  
70 million gallons per day (MGD) to approximately 50,300 customers in the  
71 Champaign District in 2005. Champaign and Urbana lie in a region where major  
72 surface waters are scarce. As a result, the community's water supply depends on  
73 high-capacity wells that extract water primarily from the Mahomet Aquifer, a  
74 deep sand-and-gravel aquifer that is the major source of water for many  
75 communities, farmers, and industries in central Illinois. Currently, IAWC  
76 operates two well fields, one located within and just outside Champaign, finished  
77 in the Mahomet Aquifer, and the other in Urbana, finished in the Glasford Sands.

78 **Q10. What is the current water treatment capacity of the Champaign system?**

79 A. The current rated capacity is 40 MGD. This consists of 30 MGD at the West  
80 WTF and 10 MGD at the East WTF. (As discussed below, however, the Illinois  
81 Environmental Protection Agency ("Illinois EPA") has determined that the rated  
82 capacity of the West WTF should be reduced by 5 MGD to 25 MGD.)

83 **Q11. What is meant by "rated capacity"?**

84 A. Rated capacity is the amount of water that the water treatment facility can  
85 produce and be able to meet the loading and water quality requirements of the  
86 Illinois EPA. A review of the facility's infrastructure, filters, chemical systems  
87 and clearwell volume is utilized in determining the limiting components of the  
88 facility that establishes the capacity. This capacity allows the facility to meet the  
89 requirements for public water supplies of Section 601.101 of the Illinois EPA's  
90 regulations, 35 Ill. Adm. Code § 601.101.

91 The rated capacity provides the maximum amount of water that is available to  
92 meet both average day and maximum day demands. These demands are  
93 determined through the water usage of the customers throughout the system. The  
94 average day demand is the annual average of usage throughout the year.  
95 Maximum day demands are those demands during the year that are elevated due  
96 to significant demands caused by the customers. Maximum day demand is  
97 determined by using the day that the highest quantity of daily water usage occurs  
98 within the system in a given year.

99 In addition the Illinois EPA utilizes a seven day maximum average daily pumpage  
100 for the system when determining if the water treatment facility has sufficient rated  
101 capacity.

102 **Q12. Why is the new Champaign Facility project needed?**

103 A. The Champaign District has experienced moderate, steady population growth over  
104 the past three decades that has led to a projection that maximum day water use  
105 demands could exceed the 40 MGD combined rated capacity of the District's  
106 existing two (2) facilities (East WTF and West WTF) after 2008. In order to meet  
107 the projected maximum day demands, the Champaign District needs to construct  
108 additional water supply and treatment facilities to add to the existing capacity of  
109 the system. In addition, as I explain in more detail below, the Illinois EPA has  
110 indicated that the rated capacity of the West WTF should be reduced in order to  
111 meet the required disinfectant contact time. The reduction is expected to be 5  
112 MGD, which will reduce the capacity of the West WTF to 25 MGD. The project  
113 will also include the construction of an additional source of supply, raw water

114 transmission mains and finished water transmission mains in order to meet  
115 expected maximum day demands.

116 Construction of the new facility is expected to begin in 2007 and be completed  
117 during 2009. Upon completion of the Champaign Facility, the rated capacity of  
118 all facilities in the Champaign District combined will be increased to 50 MGD.  
119 No change in capacity of the 10 MGD East WTF is planned. A detailed analysis  
120 supporting the need for additional capacity was performed as a part of the 1998  
121 Master Plan Study ("1998 Study") (the Section 1 – Summary of which is attached  
122 as Exhibit BLS 1.1) and subsequent 2003 Demand and Source of Supply Analysis  
123 ("2003 Study") (attached as Exhibit BLS 1.2).

124 Between 1980 and 2000, the average daily water use demand in the Champaign  
125 District increased by over 35%, and the number of total customers served  
126 increased by more than 40%. In addition, IAWC either acquired or entered into  
127 wholesale service agreements with a number of surrounding water systems which  
128 contributed to the increase in demands and customer accounts over that time  
129 period. The Champaign County Regional Planning Commission anticipates that  
130 steady growth rates will continue into the future, and projects that the county  
131 population will increase by 15.6% between 2000 and 2020.

132 Along with the increase in average day demand, the Champaign District has  
133 experienced an increase in maximum day demand during the period 1980-2000  
134 from 23.5 MGD to 33.1 MGD, a 40% increase.

135 **Q13. Describe the 1998 Master Plan Study and subsequent 2003 Demand and**  
136 **Source of Supply Analysis.**

137 A. The Company performed a detailed analysis to determine the need for additional  
138 capacity and source of supply as a part of the 1998 Study and subsequent 2003  
139 Study. The 1998 Study was undertaken by IAWC's predecessor, Northern Illinois  
140 Water Company to assess future demand in the Champaign District. The 1998  
141 Study found that recent growth in the Champaign Division is due to residential  
142 customer increases (while commercial growth was stable), the acquisition of  
143 several new resale accounts, and increased demand by the University of Illinois.  
144 The 1998 Report concluded that maximum daily demand could be as high as 45  
145 MGD by 2020.

146 The 2003 Study found that between 1980 and 2000, average daily demands in the  
147 Champaign District increased by over 35%, and the total number of customers  
148 served increased by more than 40%. A significant portion of this growth was  
149 attributed to expansion of the University of Illinois at Urbana-Champaign. The  
150 Company also acquired or entered into wholesale service agreements with a  
151 number of surrounding water systems between 1980 and 2000, which contributed  
152 to the increase in demands and customer accounts over that time period. The  
153 2003 Study indicated that average daily demands in the Champaign system  
154 increased by about 22% during the period from 1990 to 2000. With the steady  
155 rate of growth expected for the area, average daily demands are projected to  
156 increase to approximately 27 MGD by the year 2016. The 2003 Study also found  
157 that during this period annual maximum daily demands increased. Although the

158 maximum day demands increased overall during the period, they varied widely  
159 year to year due to numerous factors, ranging between 23.8 MGD and 33.1 MGD.  
160 As a result, the ratio of maximum daily demand to average daily demand also  
161 varied widely, ranging between 1.38 to 1.72, with an average of about 1.50. The  
162 2003 Study concluded that maximum day demands could exceed the 40 MGD  
163 rated capacity of the Champaign District's treatment facilities (and the expected  
164 35 MGD rating after the Illinois EPA down rating discussed above) by about  
165 2008 and grow to 44.6 MGD by 2016.

166 **Q14. Have there been any major developments since 2003 that could change the**  
167 **conclusions of the 2003 Study?**

168 A. There have been no major developments since 2003 that would change the  
169 conclusions of the 2003 Study. However demand from several proposed ethanol  
170 plants and other industrial users that have recently been announced could  
171 represent significant increase in industrial demands that the 2003 Study did not  
172 include.

173 **Q15. Has actual population growth projections matched the population estimates**  
174 **made in the 1998 and 2003 Studies?**

175 A. According to the US Census Bureau, the population in Champaign County has  
176 increased 3.3% from 2000 to 2006. This increase is consistent with the  
177 population growth projections in both the 1998 and 2003 Studies. In addition,  
178 during the period between 2000 to 2006, the Champaign District experienced a  
179 growth of new service connections at a annual average rate of 680 per year, which  
180 is also consistent with the projected increase of 630 per year in the 2003 Study.

181 **Q16. Is there an additional reason why increased capacity is needed in the**  
182 **Champaign District?**

183 A. The Illinois EPA conducted an engineering evaluation of the Champaign District  
184 facilities during several days in May 2004. Following the evaluation, the  
185 Champaign District was notified that the District had certain deficiencies, which  
186 the Illinois EPA outlined in July 27, 2004 correspondence summarizing the  
187 engineering evaluation and an October 13, 2004 Notice of Violation. (Exhibits  
188 BLS 1.3 and BLS 1.4.) In the course of the engineering evaluation, the Illinois  
189 EPA reexamined the capacity of the Champaign District treatment facilities and  
190 recommended the addition of treatment capacity and other improvements to  
191 address issues of filter capacity and the shortfall in chlorine contact time at the  
192 existing West WTF. If these deficiencies were not addressed, it was Illinois  
193 EPA's opinion that the overall rated capacity of the West WTF would be limited  
194 to 13.75 MGD (down from 30 MGD).

195 Through discussions and correspondence with the Illinois EPA, it was  
196 determined that the Company could resolve Illinois EPA's concerns if new water  
197 treatment facilities were constructed and changes were made to the existing West  
198 WTF to address disinfectant contact time and to limit existing capacity. (See  
199 Exhibit BLS 1.5). Because of difficulties (described below) in adding new  
200 facilities to the West WTF site, the Company proposed to satisfy the Illinois  
201 EPA's concerns by making improvements to and reducing the capacity at the  
202 West WTF and by building the new Champaign Facility.

203 Under the proposed solution, some original treatment facilities will likely be taken  
204 out of service at the West WTF to comply with the Illinois EPA requirements for  
205 disinfectant contact time. The resulting removal of these facilities and additional  
206 work to meet the requirements of the Illinois EPA are expected to reduce the  
207 current rated capacity of 30 MGD for the West WTF by 5 MGD to 25 MGD.  
208 This would effectively reduce the existing treatment capacity for the entire  
209 Champaign District to 35 MGD. As a result, the new Champaign Facility must  
210 have sufficient capacity (as discussed below), to make up for this reduced rating.  
211 The Illinois EPA has set a time line for the Company to submit a Construction  
212 Permit request for the new treatment facility. Under this timeline, the request for  
213 the Construction Permit must be submitted by July 31, 2007, and the facility must  
214 be sufficiently completed for the application for an Operating Permit by  
215 December 31, 2008. (See Exhibit BLS 1.6).

216 **Q17. What did the Company conclude was required in terms of new capacity?**

217 A. It was determined that an increase in overall treatment capacity to 50 MGD would  
218 allow the Champaign District to meet the projected 95% confidence level of  
219 maximum day demands to 2025, or approximately 15 years following the  
220 completion of the facility as projected by the 2003 Study. A span of 10 to 20  
221 years is considered to be a reasonable period for planning a water supply system,  
222 including the capacity of the water treatment facility. However, a span of 15  
223 years is generally agreed upon as an acceptable planning period for an immediate  
224 system design and construction. In order to meet the 95 percent confidence level  
225 for maximum day demand of 50 MGD through approximately 2025, therefore,

226 additional capacity of 15 MGD would be required, to increase the overall capacity  
227 of the Champaign District by 10 MGD plus recover the 5 MGD capacity loss that  
228 the existing West WTF would experience in order to meet the requirements by the  
229 Illinois EPA. With the construction of a new 15 MGD treatment facility, the net  
230 increase of treatment capacity for the system will be 10 MGD (15 MGD initial  
231 facility capacity minus the 5 MGD reduction at the existing West WTF). As will  
232 be discussed, the plant is designed to accommodate expansion to 20 MGD.

233 **Q18. Will the Champaign Facility require a new source of supply?**

234 A. Yes. The existing two treatment facilities in the Champaign District are supplied  
235 by groundwater wells predominately within the Mahomet Aquifer, which is the  
236 primary source of supply for much of this part of Central Illinois. The overall  
237 capacity of the existing 21 wells is 38.5 MGD, with a reliable capacity of 35.0  
238 MGD. Thus, new supply would be needed to provide sufficient water to supply  
239 the Champaign District at a 50 MGD capacity. The 2003 Study found that it  
240 appeared likely that water levels in the West Well Field would continue to drop in  
241 the future if withdrawals continue to increase to meet projected increases in  
242 customer demands. The 2003 Study concluded the Company may be reaching the  
243 point where the capacity of the West Well Field may no longer be sustained  
244 through the construction of additional wells. The 2003 Study therefore  
245 recommended the Company investigate development of a new source of supply  
246 for the Champaign District and that development of a new well field in the  
247 Mahomet Aquifer represents the best opportunity for an abundant and high  
248 quality new source of supply for the Champaign District. As a result, the

249 Company concluded that it should develop a new well field west of Champaign to  
250 meet expected increase in demand.

251 **Q19. Did the Company evaluate the possible locations and impacts of a new well**  
252 **field?**

253 A. Yes. Wittman Hydro Planning Associates of Bloomington, Indiana ("Wittman  
254 Hydro") conducted a Source of Supply Investigation ("Supply Investigation")  
255 dated November 27, 2006 at the request of the Company to assist with the  
256 planning of the new treatment facility. (See Exhibit BLS 1.7.) The Supply  
257 Investigation evaluated the sustainable yield of the Mahomet Aquifer and  
258 considered the long-term impacts of a new well field located several miles west of  
259 Champaign, and concluded that the proposed new well field could provide a  
260 sustainable supply at IAWC's planned future pumping rate. The Supply  
261 Investigation also concluded that a redistribution of current pumping withdrawals  
262 in the Champaign area would benefit the Mahomet Aquifer. In Section 6.2 of the  
263 Supply Investigation, Development Scenarios, Scenario #1 represents a five MGD  
264 shift from the existing West Well Field to the proposed new well field. This  
265 scenario represents conditions from 2006 to about 2011, and the modeled  
266 drawdowns of the aquifer for that scenario indicate a relatively small drawdown  
267 (approximately 2 feet) near the proposed new well field and a corresponding  
268 larger increase (approximately 5 feet) in the vicinity of the existing West Well  
269 Field (due to the shift of withdrawal to the proposed new well field). This  
270 represents an overall positive impact on drawdown levels across this region of the  
271 Mahomet Aquifer and demonstrates the importance of utilizing of a new location

272 within the Mahomet Aquifer for additional source of supply for the Champaign  
273 District.

274 **Q20. Have the actual pumping levels of the existing well fields been consistent with**  
275 **1998/2003 Study projections indicating that a new source of supply is**  
276 **needed?**

277 A. As indicated in the 2003 Study, it was expected that water levels in the West Well  
278 Field would continue to decline. Actual readings from an observation well  
279 located on the western edge of the West Well Field has confirmed that the water  
280 levels have continued to decline from the levels shown in the 2003 Study.  
281 (Exhibit BLS 1.8.) In addition, the Wittman Hydro Supply Investigation also  
282 indicated that declining groundwater levels in the region suggest that in the future,  
283 a new well field located west of Champaign will provide additional capacity with  
284 less impact on existing wells.

285 **Q21. How will the new facility receive its source of supply?**

286 A. The new Champaign Facility will be supplied entirely by groundwater wells  
287 developed in a new well field west of Champaign. All of the wells will be  
288 finished and screened in the Mahomet Aquifer. The new well field is described in  
289 detail below.

290 **Q22. Did the Company consider alternatives for a new source of supply?**

291 A. Yes. However, it was determined that a new well field represented the best option  
292 for a new source of supply. Champaign County is situated on the divide between  
293 the Ohio and Mississippi Rivers and is at the head of four (4) major river  
294 watersheds that contribute to the Ohio and Mississippi Rivers. As a result,

295 surface waters are scarce. Rivers flow out of Champaign County to the east, west,  
296 and south. The Kaskaskia River has its origin to the northwest of Champaign,  
297 draining the western side of that City. The Kaskaskia flows toward the southwest,  
298 joining the Mississippi south of St. Louis, Missouri. The Embarras River, on the  
299 other hand, drains the south-central portion of the Champaign-Urbana  
300 Metropolitan Area. The Embarras is tributary to the Wabash River and Ohio  
301 River systems.

302 The remaining portions of the Champaign area are drained by tributaries of the  
303 Vermilion and Wabash Rivers portions of the Ohio River system. As a result of  
304 lying at the start of each of these watersheds, there is no reliable and sustainable  
305 surface water source within a reasonable proximity that the Champaign District  
306 can develop as an alternative to groundwater.

307 In the Wittman Hydro Supply Investigation, several well field locations were  
308 reviewed with the input of the Illinois State Water Survey. It was determined that  
309 an area north of Bondville and Seymour would provide additional capacity with  
310 the least impact on existing pumping. The Supply Investigation also reviewed  
311 seven possible well field configurations and provided a suggested well field  
312 development strategy to lessen the impact on the Mahomet Aquifer.

313 **Q23. Please describe the proposed new Champaign Facility.**

314 A. The Champaign Facility and new well field consists of construction of the  
315 following facilities, as shown on Exhibit BLS 1.9:

316 New Wells: Seven (7) new wells will be constructed, and one existing well will  
317 be re-drilled to provide groundwater for the new facility. Based upon results of a

318 hydrogeologic investigation and familiarity with the local geology, IA WC  
319 estimates that each well will be capable of producing up to 2.5 MGD, for a total  
320 of 17.5 MGD.

321 Raw Water Transmission Piping: Approximately 24,000 feet of raw water  
322 transmission mains generally sized between 16 and 24 inch diameter will be  
323 installed to connect the new well discharges to the proposed treatment facility.  
324 The main(s) will be installed along public right-of-way or in dedicated easements.

325 New Lime Softening Treatment Facility: The new 15 MGD treatment facility is  
326 proposed to be constructed on a 40-acre site in Scott Township between the City  
327 of Champaign and Village of Bondville. The site is currently owned by the  
328 Company. Raw water will be treated using the split treatment excess lime  
329 softening process, which is the process currently used at the two existing  
330 treatment facilities in the Champaign District. This process is exceptionally  
331 suited for treating groundwater of the quality found locally in the Mahomet  
332 aquifer, which contains high amounts of calcium and magnesium hardness.  
333 Softened water will be filtered to remove fine particulates and disinfected using  
334 hypochlorite generated on site. The raw water contains moderate levels of  
335 naturally occurring ammonia, and when chlorine is added forms chloramines,  
336 which are effective in providing disinfection as required. High service pumping  
337 units will deliver treated water to the distribution system. The reliable capacity of  
338 all treatment processes will be 15 MGD to meet the projected demand  
339 requirements through approximately 2025. The facilities will be laid out such that  
340 expansion of the process to 20 MGD in the future is easily accommodated without

341 the construction of an additional facility. The facility will include backup power  
342 capabilities, which are currently planned to provide up to 66 percent or 10 MGD  
343 of the facility's rated capacity. The facility will have modern electronic  
344 instrumentation and controls systems installed to allow IAWC staff to monitor the  
345 facility from any of the other facilities in the Champaign District.

346 Finished water transmission piping: Approximately 2 miles of at least 30-inch  
347 diameter finished water transmission piping will be installed along public right-  
348 of-way to connect the new treatment facility to the existing distribution system.  
349 Additional improvements to the distribution system will be installed under a  
350 separate project which will assist in evenly distributing the flow from the new  
351 Champaign Facility.

352 Residuals Handling: Treatment residuals from the primary and secondary  
353 treatment units will be directed to on-site lagoons; backwash waste from the  
354 filters will be directed to a backwash holding tank. Lagoon decant and backwash  
355 waste will be recycled to the head of the facility. Treatment residuals will be  
356 removed periodically from the lagoons and will be land-applied similar to the  
357 residuals produced at Champaign District's other treatment facilities.

358 **Q24. Explain the basis for the siting decision for the new well field.**

359 A. As described in the 2003 Study, the proposed new well field would have to be  
360 located a sufficient distance away from the existing well field to avoid  
361 interference between the two sources of supply. In addition, the Champaign  
362 District is situated on the edge of the buried bedrock valley that forms the  
363 southern boundary of the Mahomet Aquifer, and the thickness of the Mahomet

364 Aquifer declines to the north and east of the West Well Field. Therefore, the  
365 proposed well field has been located to the west/southwest of the West Well Field  
366 to access a deeper and thicker portion of the aquifer.

367 The 1998 Study proposed two locations to consider when developing the new  
368 well field and treatment facility location. These locations were reviewed by  
369 Wittman Hydro in the Supply Investigation. The Supply Investigation, with  
370 review provided by the Illinois State Water Survey, determined that the area just  
371 north of Bondville and Seymour would have the least impact on existing users  
372 and also allow IAWC to lessen the impact on the aquifer in the area of Staley  
373 Road and Bradley Avenue. Using these criteria, the locations proposed by the  
374 1998 Study were determined to be not as sustainable as the final proposed well  
375 field site recommended by the Supply Investigation.

376 **Q25. Why did the Company chose the Scott Township site for the Champaign**  
377 **WTF?**

378 A. IAWC selected the site for the Champaign Facility based on hydrogeological  
379 aspects of the area and the Company's desire for the Champaign Facility to be  
380 located in close proximity to the well field source of supply. As discussed above,  
381 the Wittman Hydro Supply Investigation determined the best location of a new  
382 well site that would limit impact on existing landowners and communities and  
383 ensure that the well field would be viable into the future. The determination of an  
384 area that would support additional wells for the community was used to establish  
385 a search area in which to site the new treatment facility. It was the desire of the  
386 Company to be in close proximity of the well field to increase operational

387 efficiencies of the facility and increase the reliability of the raw water  
388 transmission mains. In addition, the close proximity of the treatment facilities to  
389 the wells offers the ability to monitor the well sites more effectively and to  
390 respond to the sites if security/operational issues arise. Some additional  
391 considerations that were used to determine the siting of the facility included  
392 proximity of natural drainage way to allow for storm water management and  
393 redundant discharge from lagoons, hydraulic fit with the existing treatment  
394 facilities and ability to support the future growth areas, safety and limited impact  
395 from neighboring industrial activities to reduce the potential contamination of raw  
396 water and finished water, availability of future expansion, and availability of a  
397 parcel of land.

398 **Q26. Is the Company seeking a Certificate of Convenience and Necessity for the**  
399 **Champaign Facility and new wells?**

400 A. No. These new facilities are being built in an area for which IAWC already holds  
401 a Certificate, and so no separate construction Certificate is required. IAWC's  
402 existing certificate for Champaign, issued by the Commission in Docket 99-0418  
403 states: "IT IS HEREBY CERTIFIED that the public convenience and necessity  
404 require the construction, operation and maintenance by Illinois-American Water  
405 Company of a public water supply and distribution system in or about the  
406 municipalities of Champaign, Urbana, Savoy, Bondville, Philo and Tolono, and  
407 the transaction of a public utility business in connection therewith." The  
408 Commission has determined that a water utility need not obtain a separate  
409 construction Certificate to build facilities, including water treatment plants, within

410 an area for which the utility already has a Certificate authorizing it to provide  
411 service. Because IAWC is authorized to provide service "in and about"  
412 Champaign, Urbana, Savoy, Bondville, Philo and Tolono, a separate construction  
413 Certificate is not required for the new facilities..

414 **Q27. Did the Company review alternatives to building a new treatment facility?**

415 A. Yes. Illinois American Water reviewed one alternative option to building the new  
416 facility, that of expanding the treatment capacity at the two existing facilities.

417 This alternative was not pursued due to the inability of the existing facilities' sites  
418 to accommodate the amount of required treatment expansion. Further, initial  
419 analysis indicated the necessary expansion would have required extensive  
420 improvements to both source of supply transmission mains and finished water  
421 transmission mains that are located in highly developed and congested areas as  
422 discussed in the 1998 Study.

423 Each of the two existing facilities are surrounded by developed areas owned by  
424 others and do not have any significant amount of vacant land owned by the  
425 Company, reducing the ability to expand either of the existing treatment facilities  
426 and residuals handling facilities at those sites. Existing site conditions at each  
427 facility reduce the amount of expandable space available and anticipated  
428 improvements at the existing West WTF to address Illinois EPA concerns for the  
429 lack of sufficient disinfectant contact time will further reduce the ability to add  
430 additional capacity.

431 Moreover, the source of supply for each existing facility would have to be  
432 increased to support additional treatment capacity. Each location would have

433 required the supply of additional wells and raw water transmission piping due to  
434 the at-capacity status of the current transmission piping. In addition, hydrological  
435 analysis (in the Wittman Hydro Supply Investigation) of the existing West Well  
436 Field recommended that a redistribution of the current rates of pumping in that  
437 area of the Mahomet Aquifer would allow the water levels during pumping  
438 drawdown to be reduced and improve the sustainability of the existing wells and  
439 reduce the overall impact to the aquifer. Based on this recommendation, a new  
440 well field would be required to be developed further away from the existing  
441 facilities, requiring extended lengths of raw water transmission mains that would  
442 have required construction in established residential areas.

443 Further analysis of expanding the capacity at the existing facilities indicated that  
444 additional finished water transmission mains would have been required due to the  
445 head conditions in the existing transmission mains. As would be the case for the  
446 raw water transmission mains, these finished water transmission mains would  
447 have to be installed in established residential areas, reducing the available  
448 alignments for construction and adding to costs.

449 Based on the these difficulties, it was determined that a new facility, closer to the  
450 proposed new well field and with access to the rapidly developing areas to the  
451 west of Champaign was the most viable solution to meet the increasing demands  
452 of the system.

453 **Q28. Does this conclude your testimony?**

454 A. Yes, it does.