

ILLINOIS COMMERCE COMMISSION

IAWC EXHIBIT 3.00

**DIRECT TESTIMONY OF
JEFFERY T. KAISER**

ILLINOIS-AMERICAN WATER COMPANY

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**DIRECT TESTIMONY
OF
JEFFREY T. KAISER**

1 **I. WITNESS IDENTIFICATION AND BACKGROUND**

2 **Q1. Please state your name and business address.**

3 **A.** Jeffrey T. Kaiser, 100 North Water Works Drive, Belleville, Illinois 62223.

4 **Q2. By whom are you employed and in what capacity?**

5 **A.** I am employed by American Water Works Service Company, Inc. (the
6 “Service Company”) as Director of Engineering for Illinois-American Water
7 Company (“IAWC” or the “Company”).

8 **Q3. Please summarize your education and employment history.**

9 **A.** I received a Bachelor of Science degree in civil engineering from
10 Washington University in St. Louis, Missouri in 1986. I am a registered
11 professional engineer in the states of Illinois, Missouri, Arkansas and
12 Indiana. I have over 25 years experience in the water and wastewater
13 design and construction industry. From 1986 until April of 2008, I held
14 various roles of increasing responsibility for large nationally-based
15 engineering firms, including positions as project engineer, senior engineer,
16 project manager, and office manager. In all these roles, the focus of my
17 work was the water and wastewater industry. In these roles, I have been
18 involved in, or have overseen the completion of, numerous planning,
19 design, and construction projects ranging in size and scope from small
20 sewer and water main extension projects to water and wastewater system

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21 planning studies, and the design and construction administration of
22 treatment plant improvement projects of up to \$280 million. In April of
23 2008, I was employed by the Service Company as the Director of
24 Engineering for IAWC, the position I currently hold.

25 **Q4. Are you a member of any industry or professional organizations?**

26 **A.** Yes. I am a member of the American Water Works Association and the
27 Water Environment Federation.

28 **Q5. Please summarize your responsibilities as Director of Engineering**
29 **for IAWC.**

30 **A.** I am responsible for planning, design and construction of water,
31 wastewater, and other general facilities for the Company. My
32 responsibilities include: administering the capital investment program for
33 the company; ensuring compliance with state and federal requirements
34 related to the planning for and delivery of the capital investment program;
35 coordinating the procurement of all project design and construction
36 services; providing comprehensive system planning for use in developing
37 system needs and projecting capital spending; and supporting IAWC
38 operations staff in performing plant/system troubleshooting. Although my
39 primary responsibility is Director of Engineering for IAWC, I also perform
40 some engineering work for Iowa-American Water Co. ("Iowa-American")
41 and American Lake Water Co.

42 **Q6. As Director of Engineering for IAWC, are you familiar with the**

43 facilities and engineering operations of the Company in each of its
44 rate areas?

45 A. Yes.

46 **II. PURPOSE OF TESTIMONY**

47 **Q7. What is the purpose of your testimony?**

48 A. My testimony describes the major capital projects completed by the
49 Company in 2009 through 2011 year to date, and those major capital
50 projects planned for completion in the remainder of 2011, the first nine
51 months of 2012, and for the test year ending September 30, 2013. I have
52 defined "major projects" as those having a Company investment of
53 \$250,000 or greater. I also address historical capital expenditures and the
54 relationship of planned to actual capital expenditures for prior periods.
55 Next, I discuss the Demand Study prepared by the Company pursuant to
56 the Commission's directives in IAWC's last rate case, Docket No. 09-
57 0319. Finally, I address IAWC's Engineering function's procurement of
58 necessary support services from the Service Company.

59 **Q8. Are you sponsoring any exhibits with your Direct Testimony?**

60 A. Yes. IAWC Exhibit 3.01 is an excerpt from the Peoria District
61 Comprehensive Planning Study.

62 **III. CAPITAL PROJECTS**

63 **Q9. Does the Company have a planning process for capital projects?**

64 A. Yes. With regard to capital planning, the Company engages in a
65 comprehensive planning process that assesses capital investment needs

66 for all aspects of operations and assigns funding to capital programs on a
67 prioritized basis.

68 **Q10. Please describe the comprehensive planning process.**

69 **A.** This process begins with the development of the anticipated demand
70 projections of the system, the identification of improvements needed to
71 meet those demands and the adoption of strategies designed to bring
72 about the correct prioritization and distribution of capital spending for the
73 various needs of the business. Specific capital planning needs are
74 addressed in both the short term (one year) and longer term (five years).
75 Projects are prioritized within service districts and across the state using
76 objective criteria that validate the need for a project and assess the risk of
77 not doing the project. A key component of this planning technique is that it
78 is flexible and can be adjusted as needed to address new needs, such as
79 unplanned equipment failures, large or sudden growth of a service area,
80 or new regulatory requirements. IAWC develops a proposed capital
81 budget, which it then shares with the Service Company for review of the
82 reasonableness of the projects proposed and their forecasted costs.
83 Although the Service Company may make suggestions with respect to that
84 budget, IAWC ultimately determines the budget. This process is the basis
85 for the capital expenditures reflected in the Company's forecasted test
86 year.

87 **Q11. Please summarize total plant additions for IAWC from 2009 through**
88 **the September 30, 2013 test year.**

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89 **A.** For water facilities, the Company invested approximately \$79.6 million in
90 utility plant placed in service in 2009, \$77.5 million for plant placed in
91 service in 2010, and \$12.3 million in utility plant placed in service in the
92 first 6 months of 2011. The Company is planning to place in service
93 additional plant, the cost of which will total \$163.6 million, for the
94 remainder of 2011 through the September 30, 2013 test year end. This
95 represents a planned investment in plant in service of approximately
96 \$175.9 million for the period from the end of the last rate case test year,
97 December 30, 2010, through the end of September 2013. For wastewater
98 facilities, the Company invested approximately \$5.7 million in utility plant
99 in service in 2009, \$4.4 million in utility plant in service in 2010, and \$2.3
100 million in utility plant in service in the first 6 months of 2011. The
101 Company is planning to place in service additional plant the cost of which
102 will total \$11.6 million for the remainder of 2011 through the end of the test
103 year. This represents a planned investment in plant in service of
104 approximately \$13.9 million for the period from the end of the last rate
105 case test year, December 31, 2010, through the end of September 2013.
106 The major projects are described in greater detail below.

107 **Q12. Do these total plant additions include additional investments in water**
108 **and wastewater facilities that are not specifically identified in this**
109 **testimony?**

110 **A.** Yes. In addition to the major capital projects described below, the
111 Company will also enhance or maintain current levels of service, quality,

112 reliability, and efficiency through smaller projects that do not meet the
113 definition of a “major capital project.” These projects relate in part to
114 extension or replacement of mains, minor plant and pump station
115 improvements, and installation or replacement of services, hydrants, and
116 meters. The totals above for 2009, 2010 and the first 9 (nine) months of
117 2011 reflect these smaller projects. The totals above for the remainder of
118 2011 through the September 30, 2013 test year end reflect IAWC’s
119 projected expenditures for these smaller projects.

120 **IV. MAJOR 2009 CAPITAL PROJECTS**

121 **Q13. Please describe the major capital projects that were completed in**
122 **2009.**

123 **A.** The major capital projects completed in the year ending December 31,
124 2009 are as follows:

125 • **Alton District - Principia Pump Station Improvements (\$383,000) -**

126 This project included the replacement of the existing Principia Pump
127 Station with a larger capacity pump station for the improvement of
128 customer service, reliability, and public safety (fire flows) for existing
129 customers within the Principia College and Village of Elsah area. The
130 project also included the participation in the replacement of
131 approximately 4,893 LF of 8-inch AC pipe with 16-inch HDPE pipe to
132 further extend the reliability and public safety improvements realized
133 with the improvements of the pump station.

134 • **Champaign District – Champaign County Source of Supply and**

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135 **WTF Improvements (\$6,784,000)** - A new water treatment plant in the
136 Champaign District was placed into service and began producing water
137 for the customers of the Champaign District in December of 2008. The
138 majority of the capital additions were placed into service at that time.
139 Work completed during 2009 included site restoration, site paving,
140 access road improvements, permanent power supply to remote well
141 sites and other ancillary facilities. This work was completed in the
142 spring and summer of 2009.

143 • **Champaign District - Church Street Main Replacement (\$596,000)** -
144 This project was required due to the expansion of Carle Hospital and
145 the associated utility and street reconstruction. The project included
146 the relocation of approximately 1300 LF of 16-inch water main from
147 Busey St. to University Ave.

148 • **Chicago Water – Country Club Fire Pump and Main (\$887,000)** - To
149 improve fire flow capacity in the service area, three (3) 500 gallon per
150 minute pumps were installed in the existing booster station building
151 including associated building electrical and controls modifications.
152 Additionally, approximately 170 lineal feet of 8-inch water main was
153 installed to loop the distribution system.

154 • **Chicago Water – Valley Marina Water Tower (\$1,903,000)** - To
155 improve reliability and service during peak usage and to improve fire
156 flow, a new 500,000 gallon elevated storage tank was constructed in
157 the Valley Marina service area.

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- 158 • **Chicago Water – Hollis Well Pump Replacement (\$599,000)** -To
159 improve fire flow capacity in the service area, a second groundwater
160 supply well was constructed and integrated with the existing well
161 house. This increased the fire flow capacity of the water supply system
162 and improved system reliability with redundant well pumps.
- 163 • **Chicago Water – Arbury Fire Flow Improvements (\$911,000)** - This
164 project improved fire flow capacity in the Arbury service area. The
165 project included approximately 5200 LF of new 8-inch water main
166 (including fire hydrant and valves) installed to complete loops in the
167 distribution system to increase flow and pressure.
- 168 • **Chicago Water – Maple Avenue Water Main Replacement**
169 **(\$296,000)** - This project included the relocation of approximately 370
170 LF of 16-inch water main to accommodate an IDOT bridge
171 replacement project.
- 172 • **Chicago Water – Milwaukee Avenue Water Main Replacement**
173 **(\$426,000)** - This project included the relocation/replacement of
174 approximately 1220 LF of 8-inch water main with 14-inch HDPE to
175 accommodate an IDOT road improvement project.
- 176 • **Chicago Water – Lisle Water Main Replacement Phase I (\$653,000)**
177 - This project improved customer service, reliability and fire flows for
178 existing customers. The project included the replacement of
179 approximately 3860 LF of 6-inch diameter water main with 8-inch main
180 along Bluebell Court, Meadow Lane and Westview Lane to double the

- 181 capacity of the existing water mains.
- 182 • **Chicago Waste Water – Milwaukee Avenue Force Main**
- 183 **Replacement (\$341,000)** - This project included the relocation of
- 184 approximately 1300 LF of 8-inch HDPE force main to accommodate an
- 185 IDOT road improvement project.
- 186 • **Chicago Waste Water - Oak Valley Water Reclamation Facility**
- 187 **("WRF") Expansion (\$3,074,000)** - This expenditure included the
- 188 completion of odor control equipment installation, construction of plant
- 189 site roadways, site restoration, and related final completion items for
- 190 the Oak Valley WRF Expansion project which was placed in-service in
- 191 2008.
- 192 • **Chicago Waste Water – Country Club (unincorporated Elmhurst)**
- 193 **Sewer Rehab (\$440,000)** - This project improved operational
- 194 reliability, reduce infiltration and inflow, and aided in meeting
- 195 environmental regulations by rehabilitating existing sewer lines within
- 196 the Elmhurst collection system.
- 197 • **Chicago Waste Water – Waycinden Sanitary Collection System**
- 198 **Rehabilitation Phase I (\$1,812,000)** - This project improved
- 199 operational reliability, reduced infiltration and inflow, and aided in
- 200 meeting environmental regulations by rehabilitating existing sewer
- 201 lines within the Waycinden collection system through the installation of
- 202 a cured in place structural pipe lining of approximately 3900 LF of 8-
- 203 inch through 21-inch sewer.

- 204 • **Interurban - Belleville Distribution Office Improvements (\$999,000)**
- 205 - This project included the renovation of the Belleville Distribution
- 206 Center building. The project updated the existing office space,
- 207 distribution worker locker room, and meeting and training facilities,
- 208 created 12 additional office spaces, a conference room, meter room,
- 209 and legal and engineering file storage space within the existing
- 210 structure.
- 211 • **Interurban - Abengoa Ethanol Main Extension (\$1,742,000)** - This
- 212 project included the construction of a 5,165 LF of 20-inch main to the
- 213 Granite City Port District for a planned increase in use. The new main
- 214 serves a new large industrial customer and improves service to the Tri-
- 215 City Port District and existing residential and commercial customers
- 216 within the area.
- 217 • **Interurban – E. St. Louis WTF Emergency Building Repairs**
- 218 **(\$490,000)** - This project, discussed above, included reconstruction of
- 219 a wall in the 100 year-old high service pump building, which was found
- 220 to be failing during a recent inspection. The project included providing
- 221 temporary support of the roof, removal of the existing brick wall, and
- 222 reconstruction of a block wall with brick veneer. The project will allow
- 223 the continued use of the high service pump station at the WTF.
- 224 • **Interurban – E. St. Louis WTF Clarification Improvements**
- 225 **(\$889,000)** - This project improved operational reliability by replacing
- 226 equipment that was beyond economical repair. Project scope included

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227 the replacement of the existing chain and flight clarifier equipment in
228 Basin #2 with a new chain and flight.

229 • **Interurban - IL Route 158 Relocation (\$1,988,000)** - This project
230 included the installation of approximately 8,600 LF of 24-inch
231 transmission main to increase peak flow and pressure demand to
232 customers in the southern section of the Interurban District and was
233 required to accommodate the construction of an IDOT road
234 improvement project.

235 • **Lincoln - Replace SWTF Pressure Filters (\$832,000)** - This project
236 improved operational reliability by replacing equipment that is beyond
237 economical repair. Project scope included the replacement of the
238 horizontal pressure filters and associated piping, valves and ancillary
239 equipment.

240 • **Pekin – Well Number 9 (\$522,000)** - This project improved water
241 quality and reduces capital and operational costs in the Pekin District.
242 The project included the construction of a new Well 9 and support
243 building to replace the existing Well 7 which had experienced nitrate
244 levels above the allowable limits. Well 7 would have required more
245 costly treatment measures to be installed and operated to remain in
246 service.

247 • **Pekin – Well 9 Mains (\$154,000)** – This project went in service in
248 December 2009 and included the installation of 1,500 feet of 12-inch
249 main to allow for the new Well 9 to connect with the existing

250 distribution system. The main installation was carried out at Velde and
251 Lakecrest and Velde and Plymouth.

252 • **Peoria – Route 40 Main Relocation (\$360,000)** - This project
253 included the relocation of approximately 1302 LF of 24-inch main and
254 260 LF of 8-inch main from Hickory Grove Road to the Route 40 Pump
255 Station to accommodate a road improvement project and replace
256 approximately 1550 LF of 24-inch main that was originally installed in
257 1999. The work associated with this project was placed in service
258 during October 2009.

259 • **Peoria – Hamilton Water Main Replacement (\$298,000)** - This
260 project improved customer service, reliability and fire flows for existing
261 customers. The project included the replacement of approximately
262 1600 LF of small diameter water main with 12-inch and 8-inch main.

263 • **Peoria – Manor, Melrose, Fairway, and Dixon Water Main**
264 **Replacement (\$508,000)** - This project improved customer service,
265 reliability and fire flows for existing customers. The project included
266 the replacement of approximately 3400 LF of small diameter water
267 main with 8-inch and 6-inch main.

268 • **Statewide - Business Systems Planning Study (\$625,000)** - This
269 study consisted of a comprehensive review and analysis of information
270 technology systems and recommendations for their improvement. The
271 study is provided as IAWC Exhibit 9.01. This review and analysis
272 identified the investments necessary to replace and upgrade applicable

273 system components through the business transformation program, as
274 discussed by IAWC witness Mr. Twadelle (IAWC Ex. 9.00).

275 V. MAJOR 2010 CAPITAL PROJECTS

276 Q14. Please describe the major capital projects that were completed in
277 2010.

278 A. The major capital projects completed and placed in service in 2010 were
279 as follows:

- 280 • Alton District Office Renovation Phase II (\$691,000) - This project
281 included the replacement of the building roof, parking areas and
282 sidewalks which had previously been repaired and were beyond
283 effective additional repair. Improvements were also made to
284 restrooms and locker rooms to replace flooring, fixtures, and ceilings
285 that had exceeded their intended useful life.
- 286 • Alton - System Improvements to Serve Grafton (\$623,000) - This
287 project allowed service to be extended to a new sale for resale
288 customer to the north of the existing service area. The project scope
289 included the installation of approximately 8,910 LF of 12-inch main to
290 increase flow capacity to the northern sections of the existing Alton
291 District and extend service (sale for resale) to the Village of Grafton,
292 Illinois which had its wells deemed unsafe by the Illinois EPA.
- 293 • Alton - Route 3 Booster Upgrade (\$1,078,000) - This project
294 included the replacement of a below grade pumping station with an
295 above grade pump station. The replacement pump station increased

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296 the pumping capacity from two (2) 1.0 mgd pumps to three (3) 1.5 mgd
297 pumps to allow the station to meet anticipated future demands and
298 provided improved fire flow to the Principia gradient. The new station
299 includes a natural gas generator to allow for reliable service during loss
300 of main power.

301 • **Alton - Mills Avenue Small Main Replacement (\$387,000)** – This
302 project improved customer service, reliability and fire flows for existing
303 customers. The project included the replacement of approximately
304 1900 LF of 2-inch water main with 8-inch main on Mills Avenue from
305 Pine Street to Brown Street.

306 • **Alton – Rosenberg Main Replacement (\$452,000)** – This project
307 improved customer service, reliability and fire flows for existing
308 customers and replaced a segment of main with historic main break
309 problems. The project included the replacement of approximately
310 2400 LF of 2-inch water main with 8-inch main on Rosenberg Avenue
311 at the Clifton Terrace community.

312 • **Alton – Grafton Main Extension (\$540,000)** – This project provided a
313 service connection to the Village of Grafton. The project included the
314 installation of approximately 8900 LF of 12-inch water main from
315 Principia College to the Village of Grafton Meter Vault.

316 • **Alton – Clifton Terrace Main Extension (\$611,000)** – This project
317 included the construction of a new main in the Clifton Terrace
318 community to improve fire flow and peak hour pressures in the service

319 area above the river bluffs north of Alton. The project included the
320 installation of approximately 4000 LF of 8-inch water main from the
321 River Road to IL Route 3.

322 • **Champaign - Mattis Ave. WTF Plant Improvements (\$5,951,000) -**

323 This project was required to meet regulatory requirements related to
324 the amount of chlorine contact time of the existing WTF. The project
325 scope included the construction of a pair of 800,000 gallon clearwells
326 to serve the East and West treatment trains. The clearwells allows the
327 Mattis facility to meet the required 60 minutes of chlorine contact time
328 and also the treatment facility to meet 4 log virus inactivation and 3 log
329 giardia removal standards. The project also included the addition of
330 rate of flow controllers to the East treatment unit to allow efficient
331 utilization of the additional clearwell capacity and additional work to
332 modernize the control valves within the treatment train. The retirement
333 of the 1960's submerged filter train was also included in this project
334 due to the inability of the treatment train to meet current regulatory
335 requirements and the existing equipment and structures being at the
336 end of their useful life.

337 • **Champaign - Distribution System Improvements Phase 2**

338 **(\$6,144,000)** - This project improved system pressures, reliability, and
339 customer service to the Champaign District customers. The project
340 scope included the construction of approximately 35,000 LF of 16-inch,
341 24-inch, and 36-inch transmission mains to complete the connection of

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342 the new Champaign Plant to additional connection points within the
343 existing Champaign District distribution system.

344 • **Champaign – Curtis Road Main Extension Phase 3 (\$545,000) -**

345 This project improved system pressures, reliability, and customer
346 service to the Champaign District customers. The project scope
347 included the construction of approximately 3900 LF of 16-inch
348 transmission main to complete a loop of the southwest portion of the
349 distribution system.

350 • **Champaign – Replace Neil Street Booster Station (\$741,000) -** This

351 project was required to maintain reliable customer service by replacing
352 a pump station which is no longer dependable and is beyond cost
353 effective repair. The project included removal of the existing pump
354 station and installation of new pre-fabricated station with variable
355 speed pumps to reduce energy costs.

356 • **Chicago Water – Chicago Suburban Water Main Replacement**
357 **(\$632,000)** - This project included the installation of an automated

358 emergency interconnection meter and valve vault with the Village of
359 Mount Prospect municipal water system to improve fire flow capacity in
360 the service area. The project additionally included the construction of
361 approximately 242 lineal feet of 12-inch water main across Kensington
362 Drive to improve service pressure and fire flow capacity.

363 • **Chicago Water – Bolingbrook Lily Cache Lane Water Utility**

364 **Relocation Phase I (\$287,000)** - This project included the relocation of

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365 approximately 400 LF of 6-inch and 10-inch water main and
366 adjustments to existing valves and hydrants to accommodate the
367 widening of Lily Cache Lane from Veterans to Orchard by the Village of
368 Bolingbrook.

369 • **Chicago Water – Chicago Suburban Water Main Improvements**
370 **(\$582,000)** - This project improved system pressures, reliability, and
371 customer service to the Chicago Suburban service area customers
372 through a series of water main improvements. The project scope
373 included replacing 6-inch water main with 8-inch and 10-inch mains,
374 and installing 12- inch main to eliminate dead ends.

375 • **Chicago Water – Prospect Heights Camp McDonald Rd. Water**
376 **Main and Interconnect (\$480,000)** - This project improved system
377 allows for emergency supply and wholesale water supply service to the
378 Village of Prospect Heights. The project included the installation of
379 redundant 12-inch interconnecting water main and an automatic
380 interconnect that will allow for emergency support and improved
381 reliability of the wholesale supply to the Village of Prospect Heights.

382 • **Chicago Water – Lombard New Water Main on Sunset Ave.**
383 **(\$813,000)** - This project included the installation of approximately
384 2750 lineal feet of new 8-inch water main along Sunset Ave to loop the
385 existing dead end water mains in order to improve fire flow capacity of
386 the system.

387 • **Chicago Water – Central States Fire Flow Project (\$404,000)** - This

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388 project improved fire flow to customers in the Central States service
389 area. The project scope included the construction of an automated
390 emergency interconnection meter and valve vault with the City of Joliet
391 municipal water system to improve fire flow capacity in the service
392 area. The project additionally included the construction of
393 approximately 80 LF of 8-inch water main to connect to the City water
394 system.

395 • **Chicago Water – Arrowhead Fire Flow Main Replacement Project**
396 **(\$309,000)** - This project improved fire flow to customers in the
397 Arrowhead service area. The project scope included the construction
398 of an automated emergency interconnection meter and valve vault with
399 the City of Wheaton municipal water system to improve fire flow
400 capacity in the service area. The project additionally included the
401 construction of approximately 175 lineal feet of 8-inch water main to
402 connect to the City water system.

403 • **Chicago Water – Fernway Fire Flow Main Replacement Project**
404 **(\$539,000)** - This project improved service pressure and fire flow to
405 customers in the Fernway service area. The project scope included
406 the replacement of 1086 LF of 8-inch water main with 12-inch water
407 main.

408 • **Chicago Water - Waycinden GS Tank Replacement (\$635,000)** -
409 This project replaced an existing ground storage tank which was
410 beyond economical repair. The project scope included demolition of

411 the existing concrete storage tank and construction of a new tank in
412 the same location. The existing tank foundation was re-used to reduce
413 construction cost and disruption to neighboring properties during
414 construction.

415 • **Chicago Waste Water – Homer Glenn Chickasaw Collection Basin**
416 **CIPP Lining (\$648,000)** - This project improved operational reliability,
417 reduced infiltration and inflow, and aided in meeting environmental
418 regulations by rehabilitating existing sewer lines within the Chickasaw
419 wastewater collection system through Insituform Cured-in-Place
420 structural pipe lining of: 16,532 LF of 8-inch sewer, 1128 LF of 10-inch
421 sewer, and 1590 LF of 18-inch sewer.

422 • **Chicago Waste Water – Bolingbrook Boughton Rd. Sanitary**
423 **Rehabilitation (\$594,000)** - This project improved operational
424 reliability, reduced infiltration and inflow, and replaced a structurally
425 deficient large diameter sewer lines within the Bolingbrook wastewater
426 collection system through Insituform Cured-in-Place structural pipe
427 lining of: 1594 LF of 24-inch sewer, and 2502 LF of 27-inch sewer.

428 • **Chicago Waste Water – Waycinden – Country Club Sanitary**
429 **Sewer Rehabilitation Phase II (\$1,417,000)** - This project improved
430 operational reliability, reduced infiltration and inflow, and aided in
431 meeting environmental regulations by rehabilitating existing sewer
432 lines within the Waycinden wastewater collection system through
433 Insituform Cured-in-Place structural pipe lining of: 17,682 LF of 8-inch

434 sewer, 1305 LF of 10-inch sewer, 7399 LF of 12-inch sewer, 3359 LF
435 of 15-inch sewer, 848 LF of 18-inch sewer, 826 LF of 21-inch sewer,
436 710 LF of 24-inch sewer, and 565 LF of 27-inch sewer. Additional
437 work included sanitary sewer spot replacements and rehabilitation to
438 70 manhole structures.

439 • **Chicago Waste Water – Fox Hills Lift Station Replacement**
440 **(\$357,000)** - This project consisted of replacing an aging sanitary
441 sewer pumping station with a modern and more efficient submersible
442 pump station, including the installation of an onsite emergency
443 generator. The project provides more reliable operation, reduced risk
444 of sewage back-ups and provides a safer work environment for the
445 operators by eliminating confined space work areas.

446 • **Interurban - East St. Louis WTP Sewer Relief and Switchgear**
447 **(\$766,000)** – This project addressed the ongoing issues and failures
448 experienced by the East St. Louis WTP sewer relief pumps and force
449 main. High solids in the filter backwash and solids removal activities
450 caused ongoing maintenance issues of the sewer relief pumps and the
451 force main that discharged from the sewer relief pumps and ongoing
452 leaks in the cast iron main. The project addressed the relief pumps by
453 installing a higher quality pump with bearings designed for residual
454 conditions and installing a Variable Frequency Drive (VFD) to allow for
455 more efficient operation. In addition the project rehabilitated the force
456 main by lining the main with 1,926 LF of 20-inch Insituform Liner to

- 457 provide structural stability and extend the life of the force main.
- 458 • **Interurban - PAC Improvements (\$4,916,000)** - This project included
459 the installation of new powdered activate carbon (“PAC”) storage and
460 feed systems for the Granite City WTF, East St. Louis WTF
461 Conventional Plant and the East St. Louis WTF Aldrich Plant. The new
462 systems improve chemical feed operation, increase storage and feed
463 quantity, improve the fire safety of PAC storage, and eliminate
464 equipment-damaging PAC dust from common areas of the plant.
 - 465 • **Interurban – French Village PS Chlorine Improvements (\$331,000)**
466 - This project included the installation of new flow meter and chlorine
467 feed location to provide improved control of the chlorine system at the
468 pump station. It improved system reliability and safeguard water
469 quality for the Belleville service area several sale-for-resale customers.
 - 470 • **Interurban – Granite City, Route 3 Water Main Replacement**
471 **(\$1,833,000)** - This project included the replacement of approximately
472 300 LF of 8-inch water main beneath IL Route 3 in Granite City. The
473 project was required by the presence of a sinkhole causing damage to
474 the water main and subsequent damage to the adjacent sewer line and
475 IDOT Route 3 paving.
 - 476 • **Interurban – Shiloh, Frank Scott at Cromwell Water Main**
477 **Installation (\$251,000)** - This project included the installation of
478 approximately 2400 LF of 16-inch water main to close a loop in the
479 distribution system near Greenmount Road. The project improved

480 customer service, increased pressure, and improved fire flow to the
481 Shiloh area of the Interurban District.

482 • **Interurban – Granite City, Missouri Avenue Small Water Main**
483 **Replacement (\$273,000)** - This project improved customer service,
484 reliability and fire flows for existing customers. The project included
485 the replacement of approximately 1400 LF of 2-inch water main with 8-
486 inch main on Missouri Avenue from 21st to 24th Street.

487 • **Interurban – Granite City, 6th Street Small Water Main**
488 **Replacement (\$282,000)** - This project improved customer service,
489 reliability and fire flows for existing customers. The project included
490 the replacement of approximately 1300 LF of 2-inch water main with 8-
491 inch main on 6th Street from Ewing Street to Madison Avenue.

492 • **Interurban – Belleville, Deep Well Pump Station Water Main**
493 **Installation (\$446,000)** - This project included the installation of
494 approximately 1900 LF of 16-inch and 24-inch water main to provide a
495 second feed and improve service to the south side of IL Route 15. The
496 project improved customer service and reliability, increased pressure,
497 and improved fire flow to the section of the Belleville service area near
498 IL Route 159 south of IL Route 15.

499 • **Interurban – Belleville, 17th Street Water Main Relocation**
500 **(\$821,000)** - This project included the relocation/replacement of
501 approximately 2800 LF of 8-inch water main with 16-inch main on 17th
502 Street from West Main Street to Bunsen Avenue. The project was

503 required by the City of Belleville due to a major road reconstruction
504 project on South 17th Street.

505 • **Interurban – East St. Louis, 29th and Jefferson Street Small Water**
506 **Main Replacement (\$347,000)** - This project improved customer
507 service, reliability and fire flows for existing customers. The project
508 included the replacement of approximately 2000 LF of 2-inch water
509 main with 8-inch main on Jefferson from Olive to Ridge Street and from
510 29th to 31st Street.

511 • **Interurban – East St. Louis, Trendley Avenue Small Water Main**
512 **Replacement (\$446,000)** - This project improved customer service,
513 reliability and fire flows for existing customers. The project included
514 the replacement of approximately 2800 LF of 2-inch water main with 8-
515 inch main on Trendley Ave. from 27th to 35th Street.

516 • **Interurban – East St. Louis, Roselake Drive Main Extension**
517 **(\$347,000)** - This project improved customer service, reliability and fire
518 flows for existing customers. The project included the installation of
519 approximately 4200 LF of new 12-inch water main to improve flow and
520 pressure to the Fairmont City service area.

521 • **Interurban – Yorktown Elevated Storage Tank Property**
522 **Acquisition (\$287,000)** - This project included the purchase of real
523 estate immediately adjacent to the Yorktown storage tank. The
524 property is necessary to allow working room for maintenance (painting)
525 of the existing elevated structure and for the planned construction of a

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526 distribution system maintenance yard on the northeastern side of the
527 Interurban District. The additional working room will reduce painting
528 costs and the distribution yard will improve customer service and
529 reduce maintenance costs by significantly reducing travel time for
530 trucks and equipment to reach worksites in the District.

531 • **Pekin - Well 9 Main (\$275,000)** - This project improved operation of
532 the distribution system and service to customers by providing
533 additional distribution system capacity to transport water from the
534 location of existing wells to the other areas of the distribution system
535 needing increased supply. The project scope included the installation
536 of approximately 3,000 LF of 12-inch main from Well 9 south to the 12-
537 inch main in IL Route 29.

538 • **Peoria – Griswold Standby Power (\$613,000)** - This project is
539 designed to improve operational reliability through the installation of
540 permanent standby power for the Griswold Well Station. The project
541 scope included moving an existing undersized generator from the
542 Dodge Street Well Station to the Griswold Well Station and installation
543 of a new generator at Dodge Street to provide standby power. The
544 relocated generator provides adequate standby power for two of the
545 three largest wells at the Griswold Well Station.

546 • **Peoria – Northmoor and Sheridan Water Main Replacement**
547 **(\$522,000)** - This project improves customer service, reliability and fire
548 flows for existing customers. The project included the replacement of

549 approximately 1500 LF of small diameter water main with 8-inch main.

550 • **Peoria – University Avenue Water Main Replacement (\$790,000) -**

551 This project is designed to improve customer service, reliability and fire
552 flows for existing customers. The project included the replacement of
553 approximately 3100 LF of small diameter water main with 6-inch and
554 12-inch main.

555 • **Peoria – Allen and Wilhelm Water Main Installation (\$388,000) -**

556 This project is designed to improve customer service, reliability and fire
557 flows for existing customers. The project included the installation of
558 approximately 450Lf of 12-inch main, 300 LF of 8-inch main and 50 LF
559 of 6-inch main to close loops, replace main, and improve system
560 hydraulics.

561 • **Streator WTF Improvements (\$5,228,000) -** This project is designed

562 to improve operational reliability and water quality by replacing
563 equipment that is beyond economical repair and enhancing the
564 treatment system. The project scope included the replacement of the
565 clarification equipment, addition of a powdered activated carbon
566 (“PAC”) storage and feed system to improve water quality, associated
567 electrical improvements, and improvements to existing sludge handling
568 facilities.

569 • **Streator – Kent Street Water Main Relocation Phase 1 (\$447,000) -**

570 This project included the relocation of approximately 2200 LF of 6-inch
571 water main on Kent Street and Illinois Street. The project was required

572 by the City of Streator due to a major sewer reconstruction project.

573 • **Streator – Kent Street Water Main Relocation Phase 2 (\$637,000) –**

574 This project included the relocation of approximately 4300 LF of 6-inch
575 water main on Illinois Street from Main Street to Morrell Street. The
576 project was required by the City of Streator due to a major sewer
577 reconstruction project.

578 **VI. MAJOR 2011 CAPITAL PROJECTS**

579 **Q15. Please describe the major capital projects completed or planned for**
580 **completion in 2011.**

581 **A.** The major capital projects completed and placed in service in 2011 or
582 planned for completion in 2011 are as follows:

583 • **Alton – Principia College Main Replacement (\$452,000)** - This
584 project is designed to improve customer service, reliability and fire
585 flows for existing customers and the Village of Grafton IL. The project
586 included the replacement of approximately 2900 LF of 8-inch asbestos
587 cement water main with 12-inch main on the Principia College
588 property.

589 • **Alton – Fosterburg Road Main Relocation (\$325,000)** - This project
590 improved customer service, reliability and fire flows for existing
591 customers and relocated the water main in advance of a local road
592 improvement project. The project included the replacement of
593 approximately 3200 LF of 8-inch water main with 12-inch main on
594 Fosterburg Road from Wonderland to the Illinois Department of Mental

595 Health facility.

596 • **Champaign – Replace Neil Street Booster Station (\$700,000)** - This
597 project was required to maintain reliable customer service by replacing
598 pumps, drives, control and electrical which was no longer dependable
599 and is beyond cost effective repair. The project included renovating
600 the existing structure and installation of new variable speed pumps to
601 reduce energy costs and improve efficiency of the station. The project
602 also included the addition of back-up generation to allow for reliable
603 service of the station during periods of the loss of main power to the
604 station.

605 • **Champaign – Staley Road Main Extension (\$303,000)** - This project
606 is designed to improve system pressures, reliability, and customer
607 service to the Champaign District customers. The project scope
608 includes the construction of approximately 4000 LF of 12-inch main to
609 eliminate a dead end north of Springfield Avenue.

610 • **Champaign – Fair Street and Royal Court Main Replacement**
611 **(\$415,000)** - This project improved customer service, reliability and fire
612 flows for existing customers. The project included the replacement of
613 approximately 2400 LF of small diameter water main with 6-inch main
614 on Fair Street from Springfield Avenue to Park Street and on Royal
615 court.

616 • **Champaign – Illinois Street Main Replacement (\$334,000)** - This
617 project improved customer service, reliability and fire flows for existing

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618 customers. The project included the replacement of approximately
619 1300 LF of small diameter water main with 6-inch main on Illinois
620 Street from Vine to Anderson.

621 • **Champaign – Market Street Main Replacement (\$250,000)** - This
622 project is designed to improve customer service, reliability and fire
623 flows for existing customers. The project included the replacement of
624 approximately 1500 LF of small diameter water main with 8-inch and
625 12-inch main on Market Street.

626 • **Chicago Water – River Grange Water Main Replacement**
627 **(\$660,000)** - This project was required to maintain reliable customer
628 service by replacing aged cast iron water main which had reached the
629 end of its useful life and had been subject to increased break history.
630 The project included the replacement of approximately 3640 LF of
631 existing 4-inch water main with new 8-inch water main, fire hydrants,
632 valves, and new customer service connections.

633 • **Chicago Water – Waycinden, Elmhurst and Algonquin Roads**
634 **Water Main Replacement (\$723,000)** - This project was required to
635 maintain reliable customer service and improve system pressures and
636 fire flow. The project included the replacement of approximately 1000
637 LF of existing 6-inch water main with new 12-inch and 16-inch water
638 main.

639 • **Chicago Water – Bolingbrook Lily Cache Lane Water Utility**
640 **Relocation Phase II (\$437,000)** - This project included the relocation

641 of approximately 1200 LF of 10-inch water main and the relocation or
642 replacement of 9 fire hydrants to accommodate the widening of Lily
643 Cache Lane by the Village of Bolingbrook.

644 • **Chicago Waste Water – Valley Marina Collection System CIPP**
645 **Lining (\$648,000)** - This project improved operational reliability,
646 reduced infiltration and inflow, and aided in meeting environmental
647 regulations by rehabilitating existing sewer lines within the Valley
648 Marina wastewater collection system through Insituform Cured-in-
649 Place structural pipe lining of: 4507 LF of 8-inch sewer and 676 LF of
650 10-inch sewer as well as the replacement of 10 manholes, structural
651 lining of 8 manholes and structural repairs to 10 manholes.

652 • **Chicago Waste Water – Bolingbrook Collection System CIPP**
653 **Lining (\$563,000)** - This project improved operational reliability,
654 reduced infiltration and inflow, and aided in meeting environmental
655 regulations by rehabilitating existing sewer lines within the Bolingbrook
656 wastewater collection system through Insituform Cured-in-Place
657 structural pipe lining of 16,733 LF of 8-inch sewer and 451 LF of 10-
658 inch sewer.

659 • **Chicago Waste Water - Foxcroft Lift Station Replacement**
660 **(\$400,000)** - This project consisted of replacing an aging sanitary
661 sewer pumping station with a modern and more efficient submersible
662 pump station including the installation of an onsite emergency
663 generator. The project provided more reliable operation, reduced risk

664 of sewage back-ups and provided a safer work environment for the
665 operators by eliminating confined space work areas.

666 • **Chicago Waste Water – 107th Street Lift Station Site Improvements**
667 **(\$283,000)** - Due to the widening of 107th Street by the Village of
668 Bolingbrook, access to the small site of the pump station would be
669 restricted and no longer possible from the current driveway. This
670 project included the purchase of adjacent property, demolition of
671 existing structures, and construction of a new driveway and parking
672 area which will allow access to the pump station without parking on a
673 four lane road as well as truck/crane access to the generator and other
674 heavy equipment located at the rear of the site.

675 • **Chicago Waste Water – Algonquin Road Lift Station Replacement**
676 **(\$552,000)** - This project consisted of replacing an aging sanitary
677 sewer pumping station with a modern and more efficient submersible
678 pump station including the installation of an onsite emergency
679 generator. The project provided more reliable operation, reduced risk
680 of sewage back-ups and provided a safer work environment for the
681 operators by eliminating confined space work areas

682 • **Interurban – Belleville, Town Hall Road Water Main Installation**
683 **(\$280,000)** - This project included the installation of approximately
684 3600 LF of 12-inch water main to close a loop in the distribution
685 system near on Townhall Road. The project improved customer
686 service, increased pressure, and improved fire flow to the

687 southwestern area of the Belleville service area.

688 • **Interurban – East St. Louis, Kingshighway Water Main**
689 **Replacement (\$600,000)** - This project included the installation of
690 approximately 1650 LF of 16-inch water main to increase distribution
691 system capacity from Hill Street to the General Chemical facility. The
692 project improved customer service, increase pressure, and improve fire
693 flow to the area around Kingshighway in the East St. Louis service
694 area.

695 • **Interurban – Belleville, Sherman Avenue Small Water Main**
696 **Replacement (\$450,000)** - This project improves customer service,
697 reliability and fire flows for existing customers. The project included
698 the replacement of approximately 2600 LF of 2-inch water main with 8-
699 inch main on Sherman Ave. from Orchard Drive to East D Street.

700 • **Interurban – Belleville, IL Route 159 at Douglas Ave Main**
701 **Replacement (\$446,000)** - This project is designed to improve
702 customer service, reliability and fire flows for existing customers. The
703 project included the replacement of approximately 800 LF of 6-inch
704 water main with 8-inch main to facilitate the replacement a railroad
705 crossing which had previously been abandoned due to leakage
706 problems.

707 • **Interurban – Belleville, IL Route 158 Phase 3 Main Relocation**
708 **(\$985,000)** - This project included the installation of approximately
709 4300 LF of 24-inch and 16-inch main to accommodate IDOT

710 improvements to the highway. The existing main was installed within
711 Illinois State ROW. The new main was installed in an easement where
712 practical to avoid future relocation requirements.

713 • **Interurban – Belleville, IL Route 158 Phase 4 Main Relocation**
714 **(\$1,076,000)** - This project included the installation of approximately
715 5300 LF of 8-inch main to accommodate IDOT improvements to the
716 highway. The existing main was installed within Illinois State ROW.
717 The new main was installed in an easement where practical to avoid
718 future relocation requirements.

719 • **Lincoln – South WTP Pump Station Replacement (\$1,595,000)** -
720 Due to the age and the potential for flooding of the existing pump
721 station, a new high service pump station and new electrical feed to the
722 pump station was constructed at the South WTP. This new pump
723 station improved customer service by improving reliability of the station
724 and it reduced electrical usage.

725 • **Pekin – Well 2 Raw Water Main (\$347,000)** - This project was
726 required to meet regulatory requirements for water quality due to
727 historical groundwater contamination in the local aquifer. The project
728 included the installation of approximately 700 LF of 12-inch water main
729 from Well 2 to the Well 1 / Well 3 treatment system to increase the
730 available water supply for the treatment process.

731 • **Peoria – Main Station WTP Filters and DBP Improvements**
732 **(\$16,168,000)** – Due to geographic shifting of demands in the Peoria

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733 District and compliance implications for the Main Station WTP of
734 pending US and IL EPA regulations to lower the concentrations of
735 compounds formed by the reaction of disinfection chemicals with
736 naturally occurring dissolved organic carbon in the water supply
737 (Disinfection By-Product regulations), IAWC performed an evaluation
738 of treatment and supply options to meet the future needs of the Peoria
739 District. A summary of this evaluation is included in the Peoria District
740 Comprehensive Planning Study excerpt attached as IAWC Exhibit
741 3.01. This evaluation determined the most effective option was to
742 complete a plant expansion and process upgrade project at the
743 existing Main Station WTP. The project included the demolition of
744 outdated treatment units, modification of flocculation and settling tanks,
745 construction of new filters, addition of an Ultraviolet (UV) disinfection
746 system, and additional clearwell capacity to meet new regulatory
747 Disinfection By-Product (DBP) limits and expand the current capacity
748 of the plant to meet demands in the northern area of the Peoria
749 distribution system.

- 750 • **Peoria – Carriage Lane at Allen Road 12 inch Water Main**
751 **(\$369,000)** - This project includes the installation of 1837 LF of 12-inch
752 water main to close connect dead-end mains within the system to
753 improve customer reliability, improve fire flow, and meet anticipated
754 peak demands.
- 755 • **Peoria – Pennsylvania Ave Water Main Replacement (\$522,000)** -

756 This project improves customer service, reliability and fire flows for
757 existing customers. The project includes the replacement of
758 approximately 2800 LF of small diameter water main with 8-inch main.

759 **VII. MAJOR 2012 CAPITAL PROJECTS (9 MONTHS)**

760 **Q16. Please describe the major capital projects planned for completion in**
761 **the first nine months of 2012.**

762 **A.** The major capital projects planned for completion in the first nine months
763 of 2012 are as follows:

764 • **Champaign – Pesotum Oak Street Main Replacement (\$250,000) -**

765 This project improves customer service, reliability and fire flows for
766 existing customers. The project includes the replacement of
767 approximately 2100 LF of small diameter water main with 6-inch main
768 on
769 Oak Street from Chestnut to Lincoln.

770 • **Champaign – Coler Street Main Replacement (\$334,000) -** This

771 project improves customer service, reliability and fire flows for existing
772 customers. The project includes the replacement of approximately
773 1500 LF of small diameter water main with 6-inch main on Coler Street
774 from the High Street to Washington.

775 • **Chicago Water – Ridge Crest Fire Flow Project (\$548,000) -** This

776 project will improve service pressure and fire flow to customers in the
777 Ridge Crest service area. The project scope is currently under
778 development due to changes in a planned interconnect with the Village

779 of Morris.

- 780 • **Chicago Waste Water – Marina Water Reclamation Facility**
781 **Replacement (\$3,407,000)** - This project will eliminate (and
782 decommission) the existing Marina WRF and offload the treatment of
783 wastewater to the Fox Metropolitan Water Reclamation District. The
784 project includes the construction of new sewers to transport the
785 collected wastewater to the Fox Metro system and the payment of
786 connection fees to reserve capacity within the Fox Metro WWTP. The
787 Company has evaluated options including replacement of the
788 treatment plant. Based upon current negotiations with Fox Metro it is
789 anticipated that the offloading option will be the most economical
790 solution for wastewater treatment in this service area.
- 791 • **Interurban – 36 inch Stockyards Main Replacement (\$471,000)** -
792 This project includes the replacement and relocation of a 36 inch water
793 main with a 48-inch water main near the National City Stockyards in
794 East. St. Louis. This project is to coordinate with the IDOT Mississippi
795 River Bridge projects to eliminate hydraulic restrictions at the end of
796 the IDOT required main relocations and improve pumping efficiencies
797 and customer service during peak usage periods.
- 798 • **Peoria – Main Station Ground Water Expansion (\$1,085,000)** - The
799 current raw water supply for the Main Station WTP includes both
800 surface water and groundwater. The expansion of the groundwater
801 supply through the addition of new wells will increase the groundwater

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802 supply to the plant. This increased supply of groundwater will have
803 multiple advantages including: lower Total Organic Carbon levels
804 necessary to reduce Disinfection By-Product (DBP) formation and
805 meet pending regulatory changes, lower solids content allowing for
806 higher performance of the existing flocculation tanks and clarifiers
807 avoiding the construction of additional treatment units, higher winter
808 water temperatures reducing the formation of ice on the treatment
809 basins and providing better chemical reaction with treatment chemicals
810 which results in lower chemical cost and a reduction in the required
811 size of the new treatment plant clearwell to meet Contact Time (CT)
812 requirements for disinfection.

813 • **Peoria – Groundwater Disinfection Improvements (\$8,400,000) -**

814 This project includes new ammonia storage and feed systems and the
815 replacement of chlorine gas storage and feed with liquid chlorine
816 storage and feed at the Dodge and Griswold Well Stations. It also
817 includes new clearwells, re-routing of well discharge piping, and new
818 pump stations at these locations. Also included are ammonia storage
819 and feed facilities at the San Koty WTP. The project will accompany
820 the Peoria Main Station improvements completed in 2011, allowing the
821 Company to meet upcoming DPB and groundwater disinfection
822 requirements while eliminating the storage and use of chlorine gas in
823 the populated areas near the Dodge and Griswold Well Stations.

824 • **Pontiac – Pontiac WTP Ammonia and Other Chemical Feed**

825 **Improvements (\$3,141,000)** - This project includes the construction of
826 a new chemical storage and feed facility at the existing Pontiac WTP.
827 The new facilities will replace various chemical facilities throughout the
828 plant to meet current storage and feed requirements and relocate
829 some facilities from within the Vermillion River floodplain. The new
830 facilities will increase reliability reduce hazards to employees, eliminate
831 the use of chlorine gas, and add ammonia feed capabilities to meet
832 upcoming Disinfection By-Products (DBP) regulations.

- 833 • **Statewide – Business Transformation – ERP System (\$12,434,000)**
834 - The Business Transformation project is discussed in detail in the
835 testimonies of IAWC witnesses Mr. Twadelle (IAWC Ex. 9.00) and Mr.
836 Grubb (IAWC Ex. 4.00).

837 **VIII. MAJOR TEST YEAR CAPITAL PROJECTS**

838 **Q17. Please describe the major capital projects planned for completion**
839 **during the test year (October 1, 2012 through September 30, 2013).**

840 **A.** The major capital projects planned for completion during the test year are
841 as follows:

- 842 • **Alton – Alton WTP Carbon Feed System Modifications (\$380,000)** -
843 This project will improve water quality by increasing the capacity of the
844 current carbon feed system, allowing a higher dosage of powdered
845 activated carbon to remove higher levels various contaminants that are
846 sometimes present in the raw water.
- 847 • **Cairo – High/Low Service Pump Station Piping Improvements**

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848 **(\$473,000)** - This project includes the replacement of several pump
849 isolation valves and associated piping within the pump station at the
850 Cairo WTP. Several existing valves are no longer reliable in their
851 operation and do not provide adequate isolation of the pumps requiring
852 a shut down of this critical pump station for maintenance and repairs.

853 • **Champaign – Tolono Pump Station Improvements (\$399,000)** -
854 This project includes the replacement of the structure and pumps at
855 the Tolono Pump Station to address structural deficiencies and aging
856 infrastructure of the existing station and allow for improved reliability.
857 The replacement station will be a pre-fabricated pump station designed
858 to meet anticipated peak demands of the growing community of
859 Tolono.

860 • **Chicago Metro Water – Arbury Lake Water Connection**
861 **(\$1,000,000)** - This project includes the connection of the Arbury
862 service area water distribution system to an adjacent Lake Michigan
863 Water supply and conversion of the existing ground water supply wells
864 to back-up service for this service area. The project will result in
865 improved water quality for our customers.

866 • **Chicago Metro Water – River Grange Interconnect (\$481,000)** -
867 This project includes the connection of the River Grange service area
868 water distribution system to an adjacent water supply system and
869 removal from service of the existing ground water supply wells for this

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870 service area. The project will result in improved water quality and
871 reliability for our customers.

872 • **Chicago Water – Rollins Fire Flow Improvements (\$1,012,000)** -

873 This project will include the construction of an elevated water storage
874 tank to improve fire flow capacity within the service area. Additionally,
875 the improvements will increase system pressure, reliability and fire
876 flows for the Rollins service area.

877 • **Chicago Water – Chicago Suburban Interconnect (\$481,000)** - This

878 project includes the connection of the Chicago Suburban service area
879 water distribution system to the adjacent Village of Wheeling water
880 supply system through a metered control vault. This will provide a bi-
881 directional emergency interconnect between the Village and IAWC
882 water system. The project will provide both systems additional
883 redundancy in supplying water under emergency and fire flow
884 situations.

885 • **Chicago Water – Chicago Suburban Maintenance Site (\$613,000)** -

886 This project includes the construction or purchase of a suitable facility
887 for a maintenance site in the Chicago Suburban service area. This
888 remote maintenance site will improve customer service response time
889 and reduce future maintenance costs by reducing travel and
890 mobilization time to the service area with trucks and equipment and by
891 providing a location to store construction and repair materials.

- 892 • **Chicago Waste Water – Central States Lift Station and Forcemain**
893 **(\$649,000)** - This project involves the decommissioning of the existing
894 Essington Commons wastewater treatment facility. Improvements
895 include modification to an existing sanitary pump station and
896 construction of a new forcemain to convey the service areas
897 wastewater to the City of Joliet wastewater system for final treatment.
- 898 • **Interurban – Granite City WTF Basin/Clearwell Improvements**
899 **(\$3,011,000)** - This project will improve service reliability and aid in
900 meeting anticipated disinfection requirements by increasing the
901 existing WTP clearwell capacity and replacing the existing high service
902 pump station. The project includes the construction of a new 3.25
903 million gallon clearwell with adequate capacity to meet disinfection
904 contact time requirements using chloramines allowing for a reduction in
905 potential Disinfection By-Product (DBP) formation and will increase the
906 storage capacity in the system as requested by IEPA. The new high
907 service pump station will replace existing pumps which are beyond
908 their planned useful life with more energy efficient and reliable pumps
909 and variable frequency drives.
- 910 • **Interurban – Greenmount Crossing Pump Station and Main**
911 **(\$1,400,000)** - This project includes the construction of a new pump
912 station and associated mains to serve the Shiloh pressure zone of the
913 Interurban District. The existing underground pump station has
914 outlived its intended useful life and is no longer adequate to meet

915 customer service requirements for peak flows in the pressure zone.

916 • **Lincoln – Well Electrical Service Replacement (\$268,000)** - The
917 existing electrical feed to the Lincoln South WTP supply wells is
918 overhead and subject to damage from ice and wind storms as well as
919 overhanging trees and flood debris. This project will install
920 underground electrical cables to the wells to reduce the potential for
921 interruption of the water supply for Lincoln.

922 • **Pekin – County Home Gradient Water Main Improvements**
923 **(\$260,000)** - This project includes installation of variable frequency
924 drives on both pumps of the existing Route 9 Booster Station to allow
925 for station to reliably meet typical daily flows efficiently and effectively.
926 The project will also include the installation of chlorine booster station
927 to address low chlorine residuals that are experienced near the County
928 Home Elevated Tank.

929 • **Pekin – Court Street Water Transmission Main (\$1,000,000)** - This
930 project will address the excessive head loss that occurs along the
931 existing 10-inch main on Court Street and the 6-inch main on 11th
932 Street and Park Avenue under current and future demand scenarios.
933 The project is expected to include the installation of approximately
934 3,000 feet of 16-inch main south along 11th Street from Court Street to
935 Park Avenue, then east along Park Avenue to Court Street.

936 • **Peoria – Office Relocation (\$1,500,000)** - This project includes the

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937 purchase of an office building and improvements to that facility to meet
938 the needs of the District. The building will allow our district
939 management offices to be relocated from the Peoria downtown area to
940 a location approximately 2 city blocks from our distribution garage.
941 This project will reduce overall expense compared to the currently
942 leased office space and improve coordination/oversight between our
943 management staff and field/construction staff.

944 • **Peoria - Distribution Yard Improvements (\$250,000)** - This project
945 includes the addition of covered construction vehicle parking,
946 additional paving and other access and security improvements to the
947 distribution yard to protect large trucks and backhoes from winter
948 weather conditions and improve storage conditions for large materials
949 stored outside.

950 • **Streator – Reading and Columbus Water Main Replacement**
951 **(\$500,000)** - This project includes the replacement of approximately
952 1,500 LF of an existing 6-inch water main with an 8-inch main along
953 Columbus Street from Reading Street to Bridge Street and Bridge
954 Street from Columbus Street to Clark Street to address deficiencies in
955 fire flow within the area and improve customer service and reliability.

956 • **Statewide – Business Transformation – EAM and CIS Systems**
957 **(\$15,027,000)** - The Business Transformation project is discussed in
958 detail in the testimonies of IAWC witnesses Mr. Twadelle (IAWC Ex.

959 9.00) and Mr. Grubb (IAWC Ex. 4.00).

960 **IX. HISTORICAL CAPITAL EXPENDITURES**

961 **Q18. Have you reviewed the comparison of prior forecasts to actual data**
962 **for capital investments contained in Schedule G to determine**
963 **whether the Company is able to demonstrate the reliability and**
964 **accuracy of its forecast data?**

965 **A.** Yes. Schedule G-1, page 2, compares actual capital expenditures to
966 forecasts for the years of October 2008 to September 2009, October 2009
967 through September 2010, and October 2010 through September 2011.
968 (The 2011 data contains 9 months of actual data and 3 months of forecast
969 data). For the period of October 2008 through September 2011, the Net
970 capital expenditures of \$233,843,223 were approximately 100.16% of the
971 forecasted capital expenditure for that period. Net expenditures exclude
972 contributions and advances made to the Company by developers,
973 municipalities and the Illinois Department of Transportation (which do not
974 represent actual IAWC spending). The amounts and timing of these
975 contributions and advances are not under the control of IAWC, nor are
976 they included in rate base. Therefore, the Company utilizes Net capital
977 expenditures to track capital spending.

978 **Q19. Do you have any additional information related to the comparison of**
979 **prior forecasts to actual expenditures?**

980 **A.** The spending reported above shows that since establishing a state
981 focused engineering group in 2008, IAWC has developed a very good

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982 overall system of planning and executing our capital program. On a year
983 by year basis since 2008, IAWC has been improving on a methodology of
984 developing, updating, and executing our 5-year Strategic Capital
985 Expenditure Plan (SCEP). This methodology starts with a good
986 comprehensive planning study for each district and includes a review of
987 the needs and priorities identified in the planning study with the leadership
988 of each District. It also involves multiple iterations each fiscal year to trim
989 non-essential spending and focus resources across the state. Quarterly
990 reforecasts of capital spending vs. planned budget are rigorously
991 completed to track progress, adjust for changing or emerging priorities,
992 and refocus resources as needed to execute our plan. This methodology
993 enables IAWC to efficiently and consistently execute our annual capital
994 budget.

995 **Q20. Can variances occur between budgeted and actual expenditures for**
996 **a specific period?**

997 **A.** Yes. With any capital plan, there are variables which are outside the
998 control of IAWC. Items such as unplanned main relocations required by a
999 municipality or IDOT, large capitalized emergency work, delays in
1000 obtaining easements or permits, contractor schedules and weather all
1001 influence the Company's ability to execute the capital plan, and it is not
1002 able to meet each and every project schedule and budget every year.
1003 However, by having a good project planning and budgeting process,
1004 IAWC is able to reduce the impact of these variables. Through annual

1005 budgeting and quarterly reviews, IAWC is able to identify which projects
1006 are subject to potential delays, shift the timing of some projects by weeks
1007 or months, and, in some cases, accelerate projects forward a year while
1008 moving other projects back a year to accommodate these variables on a
1009 project-by-project basis. This ability to efficiently control a wide variety of
1010 projects allows IAWC to efficiently spend our capital dollars and meet a
1011 planned budget consistently year after year.

1012 **X. DIRECT MEASUREMENT DEMAND STUDY**

1013 **Q21. Did the Commission’s Order in IAWC’s last rate case, Docket No. 09-**
1014 **0319, require a demand study?**

1015 **A.** Yes. In that Order, the Commission directed IAWC to perform a direct
1016 demand study (the “Demand Study”) for use in future rate proceedings in
1017 Illinois. The Commission further directed IAWC to:

1018 develop a request for qualifications for independent firms
1019 to determine any and all entities capable of performing the
1020 direct demand study. IAWC should then issue a request
1021 for proposal amongst firms meeting these qualifications to
1022 perform a preliminary planning study to determine the
1023 project cost, and will report the results to the Commission.
1024 The preliminary planning study report should explain in
1025 detail how the independent firm will undertake the required
1026 direct demand study including a discussion of the types
1027 and locations of meters it intends to install and of the data
1028 it intends to collect. It should also explain how the
1029 independent firm will analyze the data collected; provide
1030 cost estimates for each aspect of the direct demand study
1031 and an estimate of when the direct demand study will be
1032 completed. The firm selected to perform the direct
1033 demand study shall be independent of IAWC, its affiliates,
1034 Staff, and all parties in this docket. IAWC is required to

1035 submit the preliminary planning study to the Commission
1036 as a compliance filing in this docket within 120 days after
1037 the Order in this proceeding is entered. (Docket No. 09-
1038 0319, Apr. 13, 2010 Final Order, p. 151.)

1039 **Q22. What is a demand study?**

1040 **A.** A demand study reviews the ratio of peak day and peak hour demand to
1041 average annual demand for each customer class. A direct measurement
1042 demand study accomplishes this by recording the peak day and hour
1043 demands of a sample of individual customers using metering equipment
1044 installed at each customer location.

1045 **Q23. Did IAWC comply with the Commission's directive to develop**
1046 **qualifications for, evaluate and select a firm capable of performing**
1047 **the preliminary planning study report?**

1048 **A.** Yes. As explained in the Interim Preliminary Planning Study Report which
1049 I prepared and which the Company filed with the Commission in Docket
1050 No. 09-0319 on June 17, 2010, IAWC issued both a Request for
1051 Qualifications ("RFQ") and a Request for Proposals ("RFP"), which
1052 resulted in selection of Black & Veatch Corporation ("B&V") as the
1053 independent firm engaged to prepare the preliminary planning study report
1054 (the "Preliminary Report") and, ultimately, the Demand Study. (Docket No.
1055 09-0319, June 15, 2010 Interim Preliminary Planning Study Report
1056 ("Interim Report") (filed June 17, 2010).)

1057 **Q24. Please explain further IAWC's RFQ process.**

1058 **A.** IAWC prepared and distributed the RFQ by overnight UPS courier on

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1059 April 22, 2010, and requested that responses be provided on or before
1060 May 3, 2010. IAWC identified 18 consulting firms to receive the RFQ.
1061 Prior to issuance of the RFQ, IAWC submitted both a draft of the RFQ and
1062 the proposed list of firms to the Commission's Staff and to parties to
1063 Docket No. 09-0319 that raised concerns regarding the Capacity Factors
1064 Report submitted by IAWC in that proceeding, including the Office of the
1065 Illinois Attorney General and Illinois Industrial Water Consumers. None of
1066 those parties provided IAWC with comments concerning the RFQ or
1067 proposed list of firms.

1068 The firms to which IAWC chose to send the RFQ were large and
1069 experienced water engineering firms, with the potential to have adequate
1070 knowledge and expertise related to the performance of demand factor
1071 studies, metering, water distribution system operation, engineering and
1072 other disciplines necessary to develop plans, specifications, and cost
1073 estimates for the Direct Study. Of the firms that received the RFQ, only
1074 one, B&V, provided qualifications in response. Four other firms provided
1075 e-mails or written correspondence indicating that they would not be
1076 responding. No other responses were received. IAWC determined that
1077 B&V demonstrated the appropriate knowledge and expertise in the various
1078 areas identified by the RFQ. Based upon the information provided by
1079 B&V, IAWC considered B&V to be a qualified, independent consulting firm
1080 capable of performing the Preliminary Report and, ultimately, the Demand
1081 Study, in accordance with the requirements of the Docket 09-0319 Order.

1082 IAWC provided a copy of B&V's RFQ response to the parties noted above.

1083 **Q25. What was the next step in the process?**

1084 **A.** Of the four firms referenced above that responded to the RFQ by e-mail or
1085 letter, two indicated they did not have adequate time to become familiar
1086 with the Preliminary Report requirements and prepare a response within
1087 the designated timeframe. Due to these indications and the fact that only
1088 one response was received, IAWC believed that other firms who received
1089 the RFQ may have failed to respond for the same reason. Therefore, to
1090 create an additional opportunity for firms to respond, IAWC determined it
1091 would be appropriate to re-send the RFQ along with the RFP to all 18
1092 firms that initially received the RFQ. Firms which did not initially provide a
1093 RFQ response were invited in the RFP to submit responses to the RFQ
1094 and the RFP simultaneously.

1095 **Q26. What were the results of the RFP?**

1096 **A.** The RFP was sent to the 18 firms via UPS overnight delivery on May 5,
1097 2010. Responses to the RFP (and the RFQ, for those firms that did not
1098 previously respond to the RFQ) were due May 26, 2010. Of the firms to
1099 which the RFP was sent, only B&V provided a response. Three firms
1100 provided e-mail or written correspondence indicating that they would not
1101 be responding with a proposal. No other responses to the RFQ or RFP
1102 were received.

1103 **Q27. Why was B&V ultimately selected to develop the Preliminary Report?**

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1104 **A.** Based on B&V's RFQ and RFP responses, IAWC determined that B&V
1105 should be selected to prepare the Preliminary Report. As discussed
1106 above, B&V is an independent firm with the knowledge and expertise
1107 necessary to perform the Preliminary Report. B&V previously prepared
1108 the indirect demand study submitted by IAWC in Docket No. 09-0319 and
1109 so is familiar with IAWC's operations and demand data. Moreover, IAWC
1110 believed that B&V's approach for performance of the Preliminary Report
1111 as described in detail in its RFP response was sound. Finally, as
1112 indicated in that response, the not-to-exceed cost estimate for B&V's work
1113 related to the Preliminary Report was \$175,000, which IAWC deemed
1114 reasonable.

1115 **Q28. Did B&V prepare the Preliminary Study?**

1116 **A.** Yes. On August 11, 2010, in Docket No. 09-0319, IAWC timely filed the
1117 Preliminary Demand Study Report prepared by B&V, as directed by the
1118 Commission's Docket No. 09-0319 Order. (Docket No. 09-0319, Aug. 11,
1119 2010 Preliminary Demand Study Report (the "Preliminary Report").)

1120 **Q29. Please discuss the direct demand study proposed in the Preliminary**
1121 **Report.**

1122 **A.** The Preliminary Report contained B&V's recommended approach for
1123 using direct measurement to gather demand data for future cost of service
1124 studies. It explained in detail how B&V (with data gathering support from
1125 IAWC) would undertake the Demand Study, discussed the numbers, types
1126 and locations of meters to be installed, and addressed the data to be

1127 collected. The Preliminary Report also explained how the data would be
1128 analyzed. It further provided cost estimates for each aspect of the
1129 Demand Study, and an estimate of when the Demand Study would be
1130 completed

1131 **Q30. Did the Commission's Staff review the Preliminary Report?**

1132 **A.** Yes. Staff reviewed the Preliminary Report and, in the fall of 2010, met
1133 with Company representatives to address the proposed Demand Study
1134 approach, as set forth in the Preliminary Report, along with other related
1135 issues such as the size and makeup of the customer sample.

1136 **Q31. What was Staff's response to the Preliminary Report?**

1137 **A.** On January 6, 2011, Staff filed a Report with the Commission concluding
1138 B&V's proposed direct measurement approach to gather demand data for
1139 future cost studies "appears reasonable and cost-effective." (Docket No.
1140 11-0058, Staff Report to the Commission, p. 2 (Jan. 6, 2011).) In its
1141 Report, Staff further noted the "significant" cost savings resulting from
1142 B&V's proposed approach for collection of data. That is, Staff recognized
1143 that meters IAWC is currently installing across its service territories are
1144 capable of gathering the requisite data. As such, Company employees
1145 can download the requisite data from individual customers in the survey in
1146 about five minutes, thereby reducing the anticipated cost of the study.
1147 Staff also found reasonable B&V's proposed sample of customers to
1148 participate in the demand data collection process. Staff accordingly
1149 recommended, "given the level of expected costs and the reasonableness

1150 of the sample” and “consistent with [the Company’s] proposed
1151 methodology,” that “the Commission order IAWC to proceed with its
1152 proposed demand study analysis in an expeditious manner.”

1153 **Q32. Did the Commission approve the Preliminary Report?**

1154 **A.** Yes. The Commission opened Docket No. 11-0058 for the purpose of
1155 determining the cost-effectiveness of the Company’s proposed Demand
1156 Study and reviewing the Preliminary Report. The Commission’s January
1157 20, 2011 Order in that proceeding adopted Staff’s recommendations noted
1158 above, found B&V’s recommended approach for the Demand Study to
1159 appear reasonable and cost-effective, and ordered IAWC to “proceed with
1160 its recommended direct demand study analysis in an expeditious manner,
1161 and within 90 days [to] file a progress report with the Commission . . .
1162 containing, among other things, a projected timeline for the project.”
1163 (Docket No. 11-0058, Order, p. 3 (Jan. 20, 2011).)

1164 **Q33. Has IAWC filed the requisite progress report?**

1165 **A.** Yes. I prepared a Demand Study Progress Report (the “Progress
1166 Report”) which IAWC filed with the Commission in Docket No. 11-0058 on
1167 April 11, 2011.

1168 **Q34. What steps did IAWC then take with respect to the Demand Study?**

1169 **A.** As detailed in the Progress Report, immediately after receiving the
1170 Commission’s January 20, 2011 Order, IAWC contacted B&V regarding
1171 timing and execution of the study. Thereafter, B&V and IAWC developed

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1172 a methodology and process for collection and transfer to B&V of the
1173 historical customer and system data necessary to complete the Demand
1174 Study. By the end of March 2011, IAWC had provided the requisite data
1175 to B&V and B&V began evaluating the same. Based on its evaluations, in
1176 April 2011, B&V verified the number and location of the customer meters
1177 to be monitored and the Company began installing the necessary meters
1178 for the study in May 2011. With the installation of the meters in May 2011,
1179 the Company began capturing hourly usage data for the monitored
1180 customers on the meter units. In the first week of August, 2011 the
1181 Company began collection of up to 96 days of historical hourly usage data
1182 from the meters for all customers included in the study and B&V utilized
1183 this data to complete the first iteration of the Demand Factor
1184 Determination. Data collection again occurred in the first week of
1185 September 2011 for August data and the first week of October 2011 for
1186 September data. To date, IAWC has collected and B&V has analyzed the
1187 customer usage data through the end of September 2011.

1188 **Q35. Please summarize the analysis of the data collected.**

1189 **A.** The Neptune meters utilized for the study capture the usage of the
1190 customers each hour and sort that data for the previous 96-day period.
1191 This hourly usage information is then downloaded by IAWC field
1192 personnel and checked for errors, faulty recording, etc. The data is then
1193 compiled in a spreadsheet and forwarded to B&V for their use in
1194 determining the Demand Factors.

1195 **Q36. Has IAWC experienced a system peak during 2011?**

1196 **A.** Yes. The Company experienced peak daily usages in July of 2011 that
1197 were generally greater than those experienced in the past two to three
1198 years. However, it should be noted that these peak usage periods in 2011
1199 did not reach historical peak usage of the past ten years and were
1200 typically considerably lower than the peak usages that had been used in
1201 the previous indirect demand study effort.

1202 **Q37. Has IAWC prepared demand factors for use in this proceeding?**

1203 **A.** Yes. B&V has completed a Demand Study Report which sets out the
1204 proposed demand factors based on the direct measurement study. The
1205 Demand Study Report is attached as a supporting work paper to IAWC's
1206 Schedule E-6, IAWC's embedded cost of service study, pursuant to 83 Ill.
1207 Adm. Code § 285.5305(c)(2)(B). IAWC witness Mr. Herbert discusses the
1208 demand factors further in his Direct Testimony (IAWC Ex. 11.00).

1209 **Q38. How has the Company used the Demand Study in this proceeding?**

1210 **A.** IAWC has incorporated the results of the Demand Study in its proposed
1211 rate design in this proceeding, as discussed further by the Direct
1212 Testimony of IAWC witness Mr. Herbert.

1213 **Q39. Will the Company continue to collect direct demand data?**

1214 **A.** Yes. As reflected in the Progress Report, IAWC intends to continue
1215 collecting direct demand data through 2013. IAWC will use this data to
1216 refine its demand factors for future use.

1217 **XI. PRODUCMENT OF SERVICES FROM THE SERVICE COMPANY**

1218 **Q40. Generally, what are IAWC's engineering needs?**

1219 **A.** IAWC has both professional and operational engineering requirements
1220 relating to the design, construction, and operation of the facilities
1221 necessary to provide adequate and reliable water and wastewater utility
1222 service.

1223 **Q41. How does IAWC meet its engineering needs?**

1224 **A.** Primarily through IAWC's engineering department, which consists of 20 in-
1225 house engineers and support staff that I supervise and who largely focus
1226 their time on management of engineering and construction projects.
1227 However, my team of engineers does not meet all of IAWC's professional
1228 engineering needs. IAWC must also hire outside consultants, project
1229 inspectors, and other independent contractors to ensure the Company's
1230 engineering and construction projects are efficiently and cost-effectively
1231 completed.

1232 **Q42. As Director of Engineering for IAWC, how do you procure the outside**
1233 **professional services necessary to meet IAWC's engineering and**
1234 **construction needs?**

1235 **A.** Projects are outsourced to third parties based on considerations of cost
1236 effectiveness, quality of service, timeliness of service provision, reliability
1237 of service and adequacy of alternate suppliers, as well as technical
1238 engineering expertise, scheduling concerns and the need for
1239 standardization of services. It is the policy of IAWC's engineering function

1240 to competitively procure most projects, unless there is a reason to obtain
1241 the services from a sole source. For competitive procurement, IAWC
1242 issues Requests for Proposals (“RFPs”) to outside vendors.

1243 **Q43. Does IAWC utilize the Service Company for outside services?**

1244 **A.** Yes. For competitive procurement, IAWC may issue an RFP to the
1245 Service Company. In some cases, such as where the Service Company
1246 has expertise with respect to a particular project, where a project’s
1247 timeline is brief, or where there is a need for consistency across American
1248 Water operating companies, the Service Company is the sole source
1249 considered for the services. In those instances, I must approve the use of
1250 and justification for such sole source procurement.

1251 **Q44. What are the advantages to using the Service Company as a**
1252 **provider?**

1253 **A.** As explained below, one reason IAWC utilizes the Service Company, for
1254 services such as GIS implementation, is cost. In instances when
1255 Company has competitively bid the Service Company against outside
1256 consultants for this work, the Service Company has been significantly less
1257 expensive. In other technical areas, the Service Company may have
1258 specific experience with issues such as chemical storage and feed
1259 systems and our corporate guidelines for how these systems are to be
1260 designed. Utilizing the Service Company for these projects requires less
1261 guidance by the IAWC staff as compared to an outside consultant and can
1262 greatly reduce the time and effort required for contract negotiations. Other

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1263 advantages of using the Service Company include the ability utilize their
1264 staff to provide temporary help to manage peak work loads or unique
1265 projects without the IAWC staff having to spend time instructing an outside
1266 consultant on our internal processes and procedures. Service Company
1267 staff already know how to utilize IAWC's systems, such as PowerPlant
1268 and JD Edwards. The Comprehensive Planning Studies are an area in
1269 which IAWC frequently utilizes the service Company for professional
1270 services. IAWC's specific models for calculating demand projections and
1271 its methodology for prioritizing projects are very efficiently completed by
1272 the planning staff of the Service Company. Overall, certain specific
1273 engineering services which the Service Company provides to IAWC are
1274 most efficiently handled by the Service Company because of their
1275 familiarity with IAWC's internal systems and methods, the reduced time
1276 that IAWC employees must spend training consultants in these systems,
1277 and in many cases the lower hourly labor costs that the Company sees
1278 from the Service Company.

1279 **Q45. Please provide a recent example of a project which was sole sourced**
1280 **to the Service Company.**

1281 **A.** Recently, IAWC engaged the Service Company's services for a chemical
1282 storage and feed building project in our Pontiac District. The Service
1283 Company has specific chemical storage and feed requirements which we
1284 follow to ensure safe and regulatory compliant storage and use of the
1285 chemicals. Thus, it was most cost-effective and efficient to use the

1286 expertise of the Service Company for that project.

1287 **Q46. Are there circumstances when IAWC does not use the Service**
1288 **Company's professional engineering services?**

1289 **A.** Yes. IAWC does not use the Service Company when the project at issue
1290 requires highly technical services of a type which are not offered by the
1291 Service Company or when the amount of work required would exceed the
1292 resource capacity of the Service Company. Also, in some circumstances,
1293 it may be less costly to use an outside vendor due to their particular
1294 experience with the type of project or proximity to the work. Also,
1295 construction work is not performed by the Service Company; that work is
1296 performed by non-affiliated vendors/contractors.

1297 **Q47. Please provide a recent example of a project which was**
1298 **competitively procured by IAWC's engineering function.**

1299 **A.** IAWC is currently converting its distribution system mapping from an
1300 AutoCAD software format to a Geographical Information System (GIS)
1301 format which contains much more specific information on the pipes,
1302 valves, etc. indicated on the maps. IAWC issued an RFP for the GIS Data
1303 Conversion Services project and considered the proposals of three
1304 bidders, the Service Company included. Ultimately, I recommended that
1305 the project be awarded to the Service Company based on the quality of its
1306 work on prior similar projects, the compliance of its proposal with IAWC's
1307 RFP, and its proposed lower cost.

1308 **Q48. How do the rates charged by the Service Company's Engineering**
1309 **function compare to those of nonaffiliated vendors?**

1310 **A.** Typically, the Service Company's rates are less. The average Service
1311 Company cost for the GIS project mentioned above per the RFP response
1312 submitted by the Service Company was \$56.51 per hour. The average
1313 costs of the remaining two bidders were \$72.00 and \$190.72 per hour.
1314 Further, our experience on other projects and from my own past
1315 experience as a consulting engineer indicates that the Service Company
1316 hourly fees are typically less than those of outside consultants.

1317 **Q49. Do you negotiate Service Company proposals in outsourcing**
1318 **projects?**

1319 **A.** Yes. Prior to engaging the Service Company to complete a project, it will
1320 submit a proposal of costs and man hours, like any other vendor. IAWC
1321 evaluates the proposal and suggests changes if we believe the costs are
1322 not representative or if we suspect there is a misunderstanding of the work
1323 necessary. Thus, there is a negotiation process. IAWC employs the
1324 same negotiation process with nonaffiliated vendors.

1325 **Q50. How do you ensure cost control in outsourcing projects?**

1326 **A.** All vendors, including the Service Company, must submit project budgets
1327 for the work to be completed. They must adhere to those budgets unless
1328 a change has been justified and the appropriate change order approved.
1329 Moreover, my staff reviews all vendor invoices. If an invoice appears too
1330 high based upon the work completed to date or our understanding of the

1331 project budget, we ask for an explanation of the charges and challenge
1332 them if necessary. We have found that most often the charges are
1333 justified after some explanation. However, in some instances, we have
1334 found errors in billing rates, charges that were miscoded by the vendor,
1335 and other errors which have been corrected and a revised invoice has
1336 been reissued. Through our review of the invoices, we strive to ensure no
1337 charges are incorrectly approved and thus control costs.

1338 **Q51. Are there other ways IAWC's Engineering function benefits from the**
1339 **services supplied by the Service Company?**

1340 **A.** Yes. I often engage the services of the Service Company's Supply Chain
1341 function. This function is able to leverage the purchasing power of the
1342 entire American Water System to secure favorable pricing and contract
1343 terms for items such as ductile iron pipe. The Supply Chain staff
1344 periodically aids the IAWC Engineering staff in the evaluation and award
1345 of construction bids, and assists with the preparation of Master Service
1346 Agreements with some of the external engineering firms that have repeat
1347 work with IAWC. American Water and IAWC individually have Master
1348 Service Agreements with large national engineering firms and smaller
1349 local engineering firms for set hourly labor charges and contract terms and
1350 conditions. Supply Chain has been instrumental in negotiating such
1351 contracts. These Master Service Agreements help reduce the time
1352 necessary to prepare and negotiate contract terms for each project an
1353 engineering firm may be selected to complete. It also provides contracting

1354 expertise and applies standardized contract terms and practices
1355 throughout American Water and IAWC's service areas, thereby avoiding
1356 situations where IAWC's individual service areas have inconsistent
1357 contract terms, pricing and practices. All of these services allow IAWC's
1358 individual Engineering function to focus more time on project engineering
1359 and construction rather than contracting. Therefore, the function operates
1360 more efficiently.

1361 **Q52. Are there other examples of IAWC's use of Service Company's**
1362 **Supply Chain services?**

1363 **A.** Yes. The Service Company's Supply Chain is currently working with IAWC
1364 Engineering and other state engineering groups to identify and contract for
1365 standardized types of material and equipment. These materials and
1366 equipment include electrical generation equipment, chlorine generators for
1367 well and booster stations, chemical feed pumps, chemical storage tanks,
1368 and electric pump motors. This standardization will allow IAWC to utilize
1369 standard contract terms and conditions when acquiring these products
1370 thereby avoiding the need to individually research, select and negotiate for
1371 their purchase, and will help ensure that proper technical review of the
1372 equipment and materials has been performed prior to purchase.

1373 **Q53. Does this conclude your testimony?**

1374 **A.** Yes.