

STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

ILLINOIS COMMERCE COMMISSION	:	
ON ITS OWN MOTION	:	00-0337
- VS -	:	00-0338
CONSUMERS ILLINOIS WATER COMPANY	:	00-0339
	:	(Consolidated)
Proposed general increase in water rates	:	

AFFIDAVIT OF RAYMOND E. PILAPIL

STATE OF ILLINOIS	:	
	:	SS
COUNTY OF SANGAMON	:	

I, Raymond E. Pilapil, being duly sworn on oath state that I am the same Raymond E. Pilapil identified in the following exhibits:

ICC Staff Exhibit 5.00 (direct testimony consisting of a cover page; 25 pages of text in question-and-answer form; Appendix A, and Schedules 5.01, 5.01 A, 5.01 B, 5.02, 5.02 A, and 5.02 B) and

ICC Staff Exhibit 12.00 (rebuttal testimony consisting of a cover page; 5 pages of text in question-and-answer form; and Schedules 12.01 A, 12.01 B, 12.02, 12.02 A, and 12.02 B);

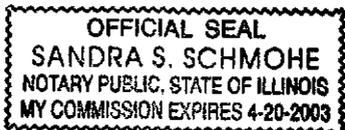
that I have prepared the above exhibits and am familiar with the contents thereof; and that the above exhibits are true and correct to the best of my knowledge as of the date hereof.

Further affiant sayeth not.

Raymond E. Pilapil

SUBSCRIBED AND SWORN to before me this 14th day of November, 2000.

Sandra S. Schmohe
NOTARY PUBLIC



OFFICIAL FILE
 I.C.C. DOCKET NO. 00-0337-00-0339
 STAFF Exhibit No. 5.02 & 12.02
 Witness: *Pilapil*
 Date: 11/17/00 Reporter: *[Signature]*

DIRECT TESTIMONY

of

RAYMOND E. PILAPIL

WATER DEPARTMENT

FINANCIAL ANALYSIS DIVISION

ILLINOIS COMMERCE COMMISSION

CONSUMERS ILLINOIS WATER COMPANY

DOCKET NO. 00-0337/00-0338/00-0339 Consolidated

AUGUST 31, 2000

1 I. INTRODUCTION

2

3 Q. Please state your name and business address.

4 A. My name is Raymond E. Pilapil. My business address is 527 East Capitol
5 Avenue, Springfield, Illinois 62701.

6

7 Q. What is your present position and its responsibilities?

8 A. I am presently employed as an Economic Analyst in the Water Department,
9 Financial Analysis Division of the Illinois Commerce Commission
10 (Commission). My responsibilities include reviewing and analyzing tariff
11 filings related to rules and regulations, conducting comprehensive
12 compliance inspections, evaluating and performing cost of service studies
13 (COSS) and rate design, and presenting expert witness testimony at
14 Commission hearings for investor owned water and sewer utilities.

15

16 Q. Please describe your professional experience in the regulatory field.

17 A. I have been employed by the Commission since March 1, 2000. Prior to this
18 time I worked at the Illinois Environmental Protection Agency (Illinois EPA) for
19 ten years as a Public Service Administrator (PSA), Leadworker, and
20 Environmental Protection Engineer I, II, and III. My responsibilities as a PSA
21 included managing a unit of ten engineers in the review and

22 issuance of Emission Reduction Market System applications and Clean Air
23 Act permits under Title V of the 1990 Amendments to the Clean Air Act.

24

25 **Q. Are you a member of any professional organizations?**

26 A. I am a member of the American Water Works Association.

27

28 **Q. What is your educational background?**

29 A. I received a Bachelor of Science Degree in Ceramic Engineering from the
30 University of Illinois in Urbana-Champaign, Illinois in December of 1989.

31

32 **Q. Have you previously provided expert testimony in regulatory
33 matters?**

34 A. I have been an expert witness in different types of hearings at the Illinois EPA
35 including a permit appeal hearing, Prevention of Significant Deterioration
36 hearing, Federally Enforceable State Operating Permit hearing, Clean Air
37 Act Permit hearing, and several controversial public hearings.

38

39 **Q. What is the purpose of this proceeding?**

40 A. Consumers Illinois Water Company (CIWC or Company) has filed revised
41 tariff sheets seeking a general rate increase in water rates for the Kankakee
42 Water Division, Vermilion County Water Division (Vermilion) and the
43 Woodhaven Water Division (Woodhaven).

44

45 **Q. What is the purpose of your testimony?**

46 A. The purpose of my testimony is to submit my analysis of the Company's
47 proposed tariffs as they relate to cost of service and rate design for
48 Vermilion and Woodhaven. My analysis is not intended to determine
49 whether the total annual revenues being sought by the Company are
50 appropriate.

51

52 **Q. Please explain how your testimony is organized.**

53 A. My testimony labeled Staff Exhibit 5.00 is organized as follows:

54 I. Introduction

55 II. Total Revenues and Sales

56 III. Embedded Cost of Service and Revenue Sheet

57 IV. Rate Design

58 V. Miscellaneous Issues

59 Appendix A - Narrative Description of ECROSS Methodology

- 60 Schedule 5.01 - Staff Computation of Revenues - Vermilion
61 Schedule 5.01A - Cost of Service Study - Vermilion
62 Schedule 5.01B - Bill Comparison - Vermilion
63 Schedule 5.02 - Staff Computation of Proforma Present Revenues -
64 Woodhaven
65 Schedule 5.02A - Staff Computation of Proforma Proposed Revenues
66 and Revenue Requirement - Woodhaven
67 Schedule 5.02B - Bill Comparison - Woodhaven

68

69 **II. TOTAL REVENUES AND SALES**

70

71 **Q. What test year is the Company proposing to use for cost of service**
72 **purposes?**

73 **A. The Company is proposing to use a future test year ending December 31,**
74 **2001 for Vermilion and Woodhaven.**

75

76 **Q. Do you agree with the usage levels proposed by the Company for**
77 **Vermilion and Woodhaven?**

78 **A. Yes, I have examined the Company's proposed usage levels and they**
79 **appear reasonable.**

80

81 **Vermillion**

82 **Q. Have you analyzed the Company's proforma present and proposed**
83 **revenue for Vermillion?**

84 A. Yes, I have. Staff Exhibit 5.00, Schedule 5.01 details Staff's estimation of
85 proforma present and proposed revenues with a resulting adjustment
86 reflecting the difference between the Company's and Staff's proforma
87 present and proposed revenues.

88

89 **Q. What adjustment are you proposing for proforma present and**
90 **proposed total revenues?**

91 A. I am proposing a \$24,308 adjustment for proforma present revenues and a
92 \$24,895 adjustment for proforma proposed revenues.

93

94 **Q. What is the cause of these adjustments?**

95 A. The bulk of these adjustments result from concerns regarding the Company's
96 Other Revenues. The Company's Data Request (DR) response WH/ALL-
97 010 includes a detailed breakdown of Other Revenues which is higher than
98 the values included in CIWC Exhibit 12, Schedule E-5, Page 2. Therefore,
99 the values from the DR response were used with an estimation of proforma
100 proposed revenues, resulting in the

101 adjustments of Other Revenues. The balance of the adjustments result from
102 rounding differences.

103

104 **Woodhaven**

105 **Q. Have you analyzed the Company's proforma present and proposed**
106 **revenue for Woodhaven?**

107 A. Yes, I have. Staff Exhibit 5.00, Schedule 5.02 and 5.02A details Staff's
108 estimation of proforma present and proposed revenues with a resulting
109 adjustment reflecting the difference between the Company's and Staff's
110 proforma present and proposed revenues.

111

112 **Q. What adjustment are you proposing for proforma present and**
113 **proposed total revenues?**

114 A. I am proposing a \$42,179 adjustment for proforma present revenues and a
115 \$45,888 adjustment for proforma proposed revenues.

116

117 **Q. What is the cause of these adjustments?**

118 A. The bulk of these adjustments result from concerns regarding the Company's
119 Other Revenues. The Company's DR response WH/ALL-010 includes a
120 detailed breakdown of Other Revenues which is much higher than the values
121 included in the CIWC Exhibit 13, Schedule E-5.

122 Therefore, the values from the DR response were used with an estimation of
123 proforma proposed revenues resulting in the adjustments of Other Revenues.
124 The rest of the adjustments result from the Company's errors in using an
125 incorrect rate when calculating the Customer Charges.

126

127 **III. EMBEDDED COST OF SERVICE STUDY AND REVENUE SHEET**

128

129 **Vermillion**

130 **Q. Please describe the purpose of a COSS in determining rates for utility**
131 **service.**

132 A. A COSS is performed to allocate costs among all customer classes to
133 determine each customer class' respective cost responsibility for the costs
134 imposed on the utility by that specific customer class.

135

136 **Q. What methodology did you use in preparing your COSS for Vermillion.**

137 A. The COSS uses the Base-Extra Capacity method of cost allocation to
138 distribute costs to customer classes. The Base-Extra Capacity method is
139 the same methodology employed in the Company's last rate case (Docket
140 No. 97-0351), which was approved by the Commission. A more detailed

141 explanation of embedded cost studies is outlined in Staff Exhibit 5.00,
142 Appendix A.

143

144 **Q. Did the Company submit a COSS for Vermilion?**

145 A. No, they did not.

146

147 **Q. Did you prepare a COSS for Vermilion?**

148 A. Yes, I prepared a COSS for Vermilion which is identified as Staff Exhibit
149 5.00 Schedule 5.01A.

150

151 **Q. Please provide a brief explanation of your COSS for Vermilion.**

152 A. The COSS is based on the Company's proposed revenue requirement and
153 details the Company's total revenues at proforma present and proposed
154 rates. Plant cost and operation and maintenance expenses were allocated
155 between metered customers to determine the total revenues needed from
156 each class of customers.

157

158 The COSS I prepared, identified as Staff Exhibit 5.00, Schedule 5.01A,
159 consists of the following:

160

161	Pages 1 and 2	Revenue at Company's Present and Proposed Rates
162		and Staff's Proposed rates
163	Page 3	Demand Factors
164	Page 4	Allocation to Cost Functions
165	Page 5 and 6	Plant in Service Allocation
166	Page 7 thru 10	Revenue Requirement Allocation
167	Page 11	Customer Group Allocation Factors
168	Page 12	Percent and Revenue Allocation to Customer Groups
169	Page 13	Fire Protection Allocation and Rates
170	Page 14	Public Fire Protection Surcharge
171	Page 15	Equivalent Meters and Services
172	Page 16	Depreciation Expense Allocation
173	Page 17	Explanation of Allocation Codes

174

175 The calculation and summary of total revenues at the Company's present and
176 proposed rates, as well as my recommended rates for each customer class,
177 are set forth on Pages 1 and 2.

178

179 The class relative cost-of-service figures, excluding Fire Protection, appear
180 in the row "Percent Cost of Service" under "PER STAFF" on Page 2, for
181 each customer class. For example, these figures show that the

182 Vermilion Residential class will provide revenues equal to 104.2 percent of
183 its calculated cost-of-service.

184

185 The Demand Factors for Maximum Day ("Max Day") and Maximum Hour
186 ("Max Hour"), for customer classes and Fire Protection, and the million
187 gallons per day ("MGD") pumpage and consumption numbers are listed on
188 Page 3. These factors represent the Max Day and Max Hour water usage
189 relative to the average usage. The Demand Factors allocate costs to the
190 customer classes and to Fire Protection. The allocation amounts are on
191 Pages 11 and 12. The water usage and pumpage amounts in MGD are
192 used to allocate plant in service and operation and maintenance ("O&M")
193 expenses to the plant's Base, Max Day and Max Hour functions.

194

195 Page 4 contains a numerical listing, in percentages, of cost allocation codes
196 for the embedded cost of service study (ECOSS). For example, an account
197 assigned an allocation Code 3 would be allocated 59.12 percent to Base
198 Cost and 40.88 percent to Max Hour Cost.

199

200 Allocation of Net Plant in Service to the Base Cost, Max Day, Max Hour,
201 Billing, Meters, Services, and Fire Protection categories is shown on Page
202 5 and 6. Page 6 also shows the percentage allocations for the Net Plant

203 in Service categories. These percentages are then used to allocate Utility
204 Operating Income, Other Taxes, and Income Taxes to the various plant
205 functions on Page 9.

206
207 The allocation of Total Revenue Requirement, i.e., total Operations and
208 Maintenance (O&M), Depreciation, Other Taxes, Income Taxes and Utility
209 Operating Income to the Base Cost, Extra Capacity, Customer Costs, and
210 Fire Protection functions is shown on Pages 7-10. The total revenue
211 requirement is located at the bottom of Page 9 on the line entitled "DIRECT
212 CUSTOMER REVENUES". The "TOTAL REVENUES ALLOCATED TO
213 SMALL MAINS", is on Page 10. The Direct Customer Revenues and Total
214 Revenues Allocated to Small Mains are used to calculate the Cost of Service
215 at the bottom of Page 2.

216
217 The cost-of-service allocation percentages for the customer classes and fire
218 protection are summarized on Page 11. The allocation percentages are
219 derived from annual consumption, the demand factors, listed on Page 3, the
220 number of monthly bills, and the number of monthly equivalent meters and
221 services. For example, on Page 11 Residential usage is calculated to be
222 2.672 MGD. That amount is 40.15 percent of total system usage. Therefore,
223 40.15 percent of total Base Cost is assigned to

224 the Residential class. Multiplying the Residential's Max Day factor of 2.25
225 MGD (from Staff Exhibit 5.00, Schedule 5.01A, Page 3) by the Average Day
226 of 2.672 MGD produces the Residential's Max Day usage of 6.013 MGD.
227 The difference between the Max Day and Average Day is the Excess of
228 3.341 MGD for the residential class. The Residential Excess of 3.341 MGD
229 is 53.41 percent of the total Excess usage over Average Day usage, and is
230 used to allocate the Residential's share of total Max Day costs.

231
232 The percent allocation of costs to the primary customer classes and Fire
233 Protection, the total cost-of-service, and the cost-of-service according to
234 each customer class are on Page 12. The calculation of Public Fire
235 Protection and Private Fire Protection cost-of-service is on Page 13. Public
236 Fire Protection Rates are on Page 14.

237
238 The number of equivalent meters and service lines and their capacity ratios
239 are on Page 15. Distribution of customer costs by equivalent meter and
240 service ratios recognizes that meter and service costs vary, depending on
241 considerations such as size of service pipe, materials used, locations of
242 meters, and other local characteristics for various sized meters as compared
243 to 5/8" meters and services. The number of

244 equivalent meters and services (i.e. based on meter ratios) assists in
245 allocating costs assigned for recovery in the customer charges. This is
246 necessary to adjust the units of service for each customer class as indexed
247 against the smallest meter size. Therefore, customers are allocated a
248 charge that reflects the costs associated with their particular meter size.
249 Equivalent Meters and Services ratios are taken from the AWWA Water
250 Meters-Selection, Installation, Testing, and Maintenance Manual (M6), 1972
251 Pages 32-33.

252
253 The allocation of depreciation expense according to plant account is set forth
254 on Page 16 of the COSS.

255
256 A brief explanation of COSS allocation codes appears on Page 17 of
257 Schedule 1.

258

259 **Q. Did the Company provide you with a proforma proposed breakdown**
260 **of operation and expense expenses for use in the COSS?**

261 **A. No, they did not. The company provided me a breakdown of actual 1999**
262 **operation and maintenance expense in DR response REP 1.07 and**
263 **subsequent faxes received August 11, 2000 and August 21,2000.**

264

265 **Q. How did you calculate the proforma proposed operation and**
266 **maintenance expense expenses for use in the COSS?**

267 A. I used the following formula to calculate each proforma proposed operation
268 and maintenance expense account:

269

270
$$OM_p = OM_a \times OM_{T1} / OM_{T2}$$

271

272 where:

273 OM_p = Proforma proposed operation and maintenance expense per
274 account.

275 OM_a = Actual 1999 operation and maintenance expense per account.

276 OM_{T1} = Total proforma proposed operation and maintenance expense from
277 CIWC Exhibit 12, Schedule C-1.

278 OM_{T2} = Total actual 1999 operation and maintenance expense from DR
279 response REP 1.07.

280

281 **Woodhaven**

282 **Q. Did the Company submit a COSS for Woodhaven?**

283 A. No, they did not.

284

285 Q. Did you prepare a COSS for Woodhaven?

286 A. No, I did not.

287

288 Q. Why not?

289 A. Woodhaven has only residential and small commercial customers of which
290 99.4% of the customers are unmetered campsites paying the same single
291 rate. The bulk of the remaining customers are support companies for the
292 campsites. Since most of the costs can easily be allocated to one customer
293 class (unmetered campsites) and the remaining customers are support
294 companies for these campsites, I determined that a COSS was not
295 necessary and that an across the board increase to meet the revenue
296 requirement is sufficient to determine cost responsibility for each customer
297 class.

298

299 IV. RATE DESIGN

300

301 Vermilion

302 Q. Please describe the current rate structure for Vermilion.

303 A. The rate structure in Vermilion consists of customer charges based on meter
304 size, declining block usage charges, and public and private fire protection for
305 metered customers.

306 **Q. Is the Company proposing to change this rate structure?**

307 A. No, they are not.

308

309 **Q. Do you agree that this current rate structure is appropriate?**

310 A. Yes, I do.

311

312 **Q. What changes in rates are the Company proposing for Vermilion?**

313 A. The Company is proposing an overall 21.75% increase in rates (CIWC
314 Exhibit 2, Page 5).

315

316 **Q. What are your recommendations with respect to the proposed**
317 **increase in customer charges, usage rates, and public and private fire**
318 **protection rates for Vermilion?**

319 A. I recommend that the monthly customer charges and usage rates be
320 increased as shown in the column labeled Staff Rates on the COSS (Staff
321 Exhibit 5.00, Schedule 5.01A, Page 1). These recommended customer
322 charges and usage rates are less than those proposed by the Company. My
323 recommendation for private fire protection rates is shown in the row labeled
324 Staff under Private Fire Protection Rates on the COSS (Staff Exhibit 5.00,
325 Schedule 5.01A, Page 2). My recommendation for public fire protection
326 rates is shown in the columns labeled Monthly Rates on the

327 COSS (Staff Exhibit 5.00, Schedule 5.01A, Page 14). These recommended
328 increases were based on the results of the COSS which allocated capital
329 costs and operation and maintenance expenses incurred by the Company to
330 provide water service to the customers.

331

332 If the Commission adopts a revenue requirement which differs from Staff's
333 proposed revenue requirement, and the change in revenue requirement
334 request is relatively minor, 5% or less, I recommend that the usage rates for
335 all customer classes except for Large General Service be changed by a
336 uniform percentage to generate the desired revenue. If the change is larger, I
337 recommend that the customer charges and usage charges for all customer
338 classes except for Large General Service be adjusted to reflect cost of
339 service.

340

341 **Q. What has the Company proposed for their Large General Service**
342 **customer, Devro-Teepak (Teepak), in Vermillion?**

343 **A.** The Company is proposing a 2.5% increase for Teepak (CIWC Exhibit 12,
344 Schedule E-3, Page 5).

345

346 **Q. Has Teepak provided evidence that they are capable of constructing**
347 **an alternative water supply source at a cost that would require a**
348 **lower rate to avoid Teepak from discontinuing water purchases from**
349 **Consumers?**

350 A. Teepak has submitted testimony and updated Exhibit 1A and 3A previously
351 presented in Docket No 97-0351, based on current cost and inflation
352 estimates which reasonably demonstrates that they have investigated the
353 feasibility of constructing an alternative water supply (DR Response REP
354 1.12). Furthermore, Teepak has stated that "if the Large Service Rate
355 approved by the Commission, increases by more than 2.5%, Devro-Teepak
356 would begin detailed engineering to proceed with construction of its own
357 water system. If Devro-Teepak is given a 0% to 2.5% increase in the Large
358 General Service Rate filed, Devro-Teepak would stay on the system." (DR
359 Response REP 1.12, Exhibit 2, Page 5-6).

360

361 **Q. What are you proposing for Large General Service?**

362 A. Teepak purchases approximately 15% of the water sold in the Vermilion
363 service area, consuming 420 million gallons (DR Response REP 1.12,
364 Exhibit 2, Page 5-6). In addition, they have already demonstrated in the last
365 two rate cases (Docket Nos. 97-0351 and 94-0270), as well as this rate
366 case, for Vermilion that they are ready and able to construct an

367 alternative water supply and cease purchasing water from Consumers.
368 Therefore, since the proposed rate will exceed out of pocket cost by a very
369 considerable margin, I agree with Consumers proposed increased rate of
370 2.5% for Large General Service, to relieve the remaining ratepayers from
371 seeing a significant rate increase if Teepak were to cease purchasing water
372 from Consumers. Simply stated, the remaining rate payers benefit from
373 Teepak remaining on the system at a less than full cost of service rate since
374 Teepak will still make a significant contribution to fixed cost.

375

376 **Q. Please identify Staff Exhibit 5.00, Schedule 5.01B.**

377 A. Staff Exhibit 5.00, Schedule 5.01B is a bill comparison for a typical customer
378 being served by Vermilion through a 5/8 meter. Specifically, this schedule
379 compares the current monthly bill, Company's proposed monthly bill, and
380 Staff's proposed monthly bill showing the dollar increase and percent
381 increase.

382

383 **Woodhaven**

384 **Q. Please describe the current rate structure for Woodhaven.**

385 A. The rate structure in Woodhaven consists of a single charge for unmetered
386 campsites. For residential and commercial customers the rate

387 structure consists of a customer charge and a single block usage charge for
388 all metered customers.

389

390 **Q. Is the Company proposing to change this rate structure?**

391 A. No, they are not.

392

393 **Q. Do you agree that the current rate structure is appropriate?**

394 A. Yes, I do.

395

396 **Q. What changes in rates are the Company proposing for Woodhaven?**

397 A. The Company is proposing an overall 57.7% increase in rates (CIWC Exhibit
398 4, Page 4 and 9) and an increase in the Non Sufficient Funds check charge
399 (CIWC Exhibit 5.00, Schedule E-3).

400

401 **Q. What are your recommendations with respect to the proposed
402 increase in customer charges and usage rate for Woodhaven?**

403 A. My recommended customer charges and usage rates are shown in the
404 column labeled Rate under Revenue Requirement on Staff Exhibit 5.00,
405 Schedule 5.02A. I have recommended the customer charges and usage
406 rates be increased less than the Company proposed.

407

408 If the Commission adopts a revenue requirement which differs from Staff's
409 proposed revenue requirement, I recommend that the customer charge and
410 usage charges for all customer classes be changed by a uniform percentage
411 to generate the desired revenue.

412

413 **Q. Please identify Staff Exhibit 5.00, Schedule 5.02B.**

414 A. Staff Exhibit 5.00, Schedule 5.02B is a bill comparison for a typical customer
415 being served by Woodhaven. Specifically, this schedule compares the
416 current monthly bill, Company's proposed monthly bill, and Staff's proposed
417 monthly bill showing the dollar increase and percent increase.

418

419 **IV. MISCELLANEOUS ISSUES**

420

421 **Vermilion**

422 **Q. Please describe the Company's proposal concerning the Non**
423 **Sufficient Funds check charge for Vermilion.**

424 A. The Company's current tariffs provide for a \$15.00 charge (ILL.C.C. No. 32,
425 Original Sheet No. 14) for checks returned to the Company for non-sufficient
426 funds (NSF). The Company proposes the same \$15.00 charge

427 to be listed on a different sheet (Proposed ILL.C.C. No. 32, First Revised
428 Sheet No. 2) on the Schedule of Rates for Water Service.

429

430 **Q. What are your recommendations with respect to the NSF check**
431 **charge in Vermillion?**

432 A. The Company did not request a change in the amount of the NSF check
433 charge, but only requests an additional listing of the same charge in the
434 Schedule of Rates for Water Service. I support listing the NSF check charge
435 of \$15.00 in the new location, but in order to avoid duplication and confusion
436 in future rate cases, I recommend that the Company be required by the
437 Commission to revise ILL.C.C. No.32, Original Sheet No. 14 to remove the
438 NSF check charge.

439

440 **Q. Please describe the Company's proposal concerning the**
441 **reconnection service fee for Vermillion.**

442 A. The Company's current tariffs provide for a \$25.00 charge (ILL.C.C. No. 32,
443 Original Sheet No. 14) for reconnection of service. The Company proposes
444 the same \$25.00 charge with revised language to be listed on a different
445 sheet (Proposed ILL.C.C. No. 32, First Revised Sheet No. 2) on the
446 Schedule of Rates for Water Service. The revised language includes the
447 following statement "A \$25.00 service fee or actual costs..."

448 **Q. What are your recommendations with respect to the reconnection service**
449 **fee in Vermillion?**

450 A. The Company did not request a change in the amount of the reconnection
451 service fee, but only requests an additional listing of the same charge in the
452 Schedule of Rates for Water Service along with revised language. I support
453 listing the reconnection service fee of \$25.00 in the new location, but in order
454 to avoid duplication and confusion in future rate cases, I recommend that the
455 Company be required by the Commission to revise ILL.C.C. No.32, Original
456 Sheet No. 14 to remove the reconnection service fee. I disagree with
457 including the statement "or actual costs" on the tariff sheet for the
458 reconnection service fee. Inclusion of this language would allow the
459 Company to adjust the reconnection service fee at their discretion without
460 ever having to come in for Commission approval to raise this fee again.
461 Therefore, I recommend that the statement "or actual costs" be removed from
462 proposed ILL.C.C. No. 32, First Revised Sheet No. 2.

463
464 **Q. Have you analyzed the proposed Infrastructure System Improvement**
465 **Service Charge (ISIC) charge for Vermillion in CIWC Exhibit 12,**
466 **Schedule E-2?**

467 A. No, I have not. The proposed Infrastructure System Improvement Service
468 Charge has been analyzed by Staff Witness Thomas R. Stack in Staff Exhibit
469 4.00.

470

471

Woodhaven

472

Q. Please describe the Company's proposal for increasing the Non-

473

Sufficient Funds check charge for Woodhaven.

474

A. The Company's current tariffs provide for a \$5.00 charge for checks returned

475

to the Company for non sufficient funds. The Company proposes to increase

476

the NSF charge to \$15.00 to reflect actual cost to the Company associated

477

with processing a returned check and to ensure that these costs are

478

assigned to the responsible customers.

479

480

Q. What are your recommendations with respect to the NSF check

481

charge in Woodhaven?

482

A. The Company has provided a breakdown of cost associated with processing

483

a returned check (CIWC Exhibit 5.00, Page 10) which supports a charge of

484

\$15.00. In addition, the company has requested consistency with the \$15.00

485

NSF charge approved for other Divisions of the Company in Docket Nos.

486

95-0342 and 95-0307 (consolidated), Docket No. 97-0351, and Docket No.

487

98-0632. After reviewing the breakdown of

488 cost and considering the Company's request for consistency, I support the
489 proposal to increase the NSF check charge to \$15.00 for Woodhaven.

490

491 **Q. Does this conclude your direct testimony?**

492 **A. Yes, it does.**

APPENDIX A

NARRATIVE DESCRIPTION OF ECOSS METHODOLOGY

SUMMARY

In general, the objectives of an embedded cost of service study (ECOSS) are to functionalize a utility's revenue requirement into basic categories and allocate those costs across rate classes to determine each class' cost of service. Rates can then be designed to recover the cost to serve each customer class. In the water industry, ECOSS is utilized as the main guide to designing rates which are unique to each utility.

The development of water rates, in general, involves the following procedures, described in the American Water Works Association ("AWWA") Manual M1, "Water Rates," p. vii (Fourth Edition):

- Determination of the total annual revenue requirements for the period for which the rates are to be effective.
- Allocation of the total annual revenue requirements to the basic functional cost components.
- Distribution of the component costs to the various customer classes in accordance with their requirements for service.

- Design of water rates that will, recover from each class of customer, within practical limits, the cost to serve that class of customer.

The following report describes the procedures employed in performing the ECOSS for the Company.

ECOSS METHODOLOGY

Staff's ECOSS uses the Base-Extra Capacity method described in detail in AWWA's *Water Rates*, Manual M1, (Fourth Edition) Pages 11-16, 1991. This procedure is a generally accepted and often used method of determining the cost to serve water customers and thus provides the basis of designing rates for a water utility.

The basic breakdown of cost is the functionalization into operational components. For a water utility the three basic types of costs are 1) operation and maintenance ("O&M") expense 2) depreciation expense and 3) return on capital investment. This information is normally readily available from the utility's accounting records.

After the costs are functionalized, they are allocated to four main components 1) base costs 2) extra capacity costs 3) customer costs and 4) direct fire protection costs.

- Base costs are those costs that tend to vary with the total quantity of water used. These costs also include O&M expenses and capital costs associated with serving customers under average load conditions.
- Extra capacity costs, and their associated O&M and capital costs, are costs correlated with meeting usage in excess of average usage. These costs can be further subdivided into costs associated with maximum-day extra usage and maximum-hour extra usage.
- Customer costs encompass those expenditures related to serving a customer regardless of that customer's water usage or rate of usage. These contain costs associated with meters, services and other customer related costs.
- Direct fire protection costs are directly applicable to the fire protection function.

After costs are properly allocated between cost components, the cost of service for each meter size is determined. The fixed customer cost of service per meter has three basic components:

- Equivalent meter costs include those customer costs associated with meters.

- Equivalent service costs include those customer costs associated with services.
- Other customer costs are those costs attributed directly to customers, divided by the number of bills to obtain a customer charge per bill. Other customer costs are non-meter size sensitive with each meter size being allocated the same per unit charge, regardless of class (i.e. residential, commercial, industrial etc.).

Equivalent meters and services is a method of assigning costs based on the size of the meter. Distribution of customer costs by equivalent meter and service ratios recognizes that meter and service costs vary, depending on considerations such as size of service pipe, materials used, locations of meters, and other local characteristics for various sized meters as compared to 5/8" meters and services. The number of equivalent meters and services (i.e. which is based on meter ratios) assists in allocating costs assigned for recovery in the customer charges. This is necessary to adjust the units of service for each customer class as indexed against the smallest meter size. Therefore, customers are allocated a charge that reflects the costs associated with their particular meter size. Actual cost differentials are taken from the AWWA Water Meters- Selection, Installation, Testing, and Maintenance Manual (M6), 1972 Page 32-33.

STAFF COMPUTATION OF REVENUES
 CONSUMER ILLINOIS WATER COMPANY - VERMILION

CHARGES	BILLING UNITS	PROFORMA PRESENT		PROFORMA PROPOSED	
		RATE	REVENUE	RATE	REVENUE
CUSTOMER CHARGES					
5/8" disk	193,628	\$10.00	\$1,936,280	\$12.27	\$2,375,816
3/4" disk	300	\$13.50	\$4,050	\$16.56	\$4,968
1" disk	4,372	\$20.00	\$87,440	\$24.54	\$107,289
1 1/2" disk	1,483	\$37.00	\$54,871	\$45.40	\$67,328
2" disk	1,577	\$57.00	\$89,889	\$69.94	\$110,295
3" disk	100	\$104.00	\$10,400	\$127.60	\$12,760
4" disk	60	\$170.00	\$10,200	\$208.58	\$12,515
6" disk	0	\$337.00	\$0	\$413.48	\$0
8" disk	0	\$537.00	\$0	\$658.87	\$0
10" disk	12	\$771.00	\$9,252	\$945.98	\$11,352
12" disk	0	\$1,125.00	\$0	\$1,380.32	\$0
3" turbine	204	\$120.00	\$24,480	\$147.23	\$30,035
4" turbine	180	\$204.00	\$36,720	\$250.29	\$45,052
6" turbine	44	\$421.00	\$18,524	\$516.55	\$22,728
8" turbine	0	\$604.00	\$0	\$741.08	\$0
10" turbine	0	\$972.00	\$0	\$1,192.60	\$0
LGS 6" turbine	12	\$421.00	\$5,052	\$431.53	\$5,178
SUBTOTAL	201,972		\$2,287,158		\$2,805,317

USAGE CHARGES					
First Block	1,581,498	\$2.3440	\$3,707,032	\$2.8760	\$4,548,390
Second Block	407,193	\$1.9100	\$777,739	\$2.3430	\$954,054
Third Block	424,750	\$1.4540	\$617,586	\$1.7840	\$757,753
Fourth Block	28,823	\$1.3310	\$38,363	\$1.6330	\$47,068
Fifth Block	534,747	\$0.7740	\$413,894	\$0.7930	\$424,054
Sixth Block	238,554	\$1.7610	\$420,094	\$2.1610	\$515,515
SUBTOTAL	3,215,565		\$5,974,709		\$7,246,834

FIRE PROTECTION					
Private			\$86,376		\$105,977
Public			\$569,434		\$698,503
SUBTOTAL			\$655,810		\$804,479

OTHER REVENUE					
Nonvariable			\$17,853		\$17,853
Variable			\$78,163		\$95,158
SUBTOTAL			\$96,016		\$113,011

TOTAL REVENUE					
Per Staff			\$9,013,693		\$10,969,642
CIWC Exh. 12, Sch. A3			\$8,989,385		\$10,944,747
Adjustment			\$24,308		\$24,895

ILLINOIS COMMERCE COMMISSION
 Cost of Service Study
 "Revenues at Present and Proposed Rates"

ITEM	PRESENT		PROPOSED		STAFF RATES	RESIDENTIAL		COMMERCIAL		INDUSTRIAL		LARGE GENERAL SERVICE		MUNICIPALITIES FOR RESALE		TOTAL
	RATES	ADJUST.	RATES	ADJUST.		BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	
CUS CHARGES MONTHLY																
5/8" disk	10.00	12.27	12.00	183,715	0	9,844	0	69	0	0	0	0	0	0	0	193,628
3/4" disk	13.50	16.56	16.00	264	0	36	0	0	0	0	0	0	0	0	0	300
1" disk	20.00	24.54	24.00	2,130	0	2,130	0	112	0	0	0	0	0	0	0	4,372
1 1/2" disk	37.00	45.40	44.00	226	0	1,182	0	75	0	0	0	0	0	0	0	1,483
2" disk	57.00	69.94	68.00	85	0	1,312	0	180	0	0	0	0	0	0	0	1,577
3" disk	104.00	127.60	124.00	12	0	88	0	12	0	0	0	0	0	0	0	100
4" disk	170.00	208.58	203.00	0	0	48	0	0	0	0	0	0	0	0	0	60
6" disk	337.00	413.48	400.00	0	0	0	0	0	0	0	0	0	0	0	0	0
8" disk	537.00	659.87	640.00	0	0	0	0	0	0	0	0	0	0	0	0	0
10" disk	771.00	945.98	918.00	0	0	12	0	0	0	0	0	0	0	0	0	12
12" disk	1125.00	1390.32	1339.00	0	0	0	0	0	0	0	0	0	0	0	0	0
3" turbine	120.00	147.23	143.00	0	0	168	0	24	0	0	0	0	0	0	0	204
4" turbine	204.00	250.29	243.00	0	0	60	0	120	0	0	0	0	0	0	0	180
6" turbine	421.00	516.55	501.00	0	0	0	0	32	0	0	0	0	0	0	0	44
8" turbine	604.00	741.08	718.00	0	0	0	0	0	0	0	0	0	0	0	0	0
10" turbine	972.00	1192.60	1155.00	0	0	0	0	0	0	0	0	0	0	0	0	0
Large General Service 5" turbine	421.00	431.53	421.00	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Bills				196,432	0	14,880	0	624	0	12	12	0	0	0	0	201,972
TOTAL CUS CHARGE REVENUES Present				1,897,769	0	319,808	0	58,837	0	5,052	0	0	0	0	0	2,287,158
Proposed				2,328,562	0	391,421	0	72,190	0	5,178	0	0	0	0	0	2,805,317
Staff				2,277,136	0	381,324	0	70,116	0	5,052	0	0	0	0	0	2,741,356
USAGE CHARGES (100 cubic feet)																
First Block	2,3440	2,8760	2,6760	1,273,166	0	269,563	0	38,749	0	0	0	0	0	0	0	1,581,498
Second Block	1,9100	2,3430	2,1750	30,806	0	250,562	0	125,825	0	0	0	0	0	0	0	407,193
Third Block	1,4540	1,7840	1,5180	98	0	189,898	0	234,754	0	0	0	0	0	0	0	424,750
Fourth Block	1,3310	1,6330	1,3000	0	0	6,802	0	22,221	0	0	0	0	0	0	0	28,823
Fifth Block	0,7740	0,7930	0,7933	0	0	0	0	0	0	0	0	0	0	0	0	534,747
Sixth Block	1,7610	2,1610	1,9250	0	0	0	0	0	0	0	0	0	0	0	0	238,554
ADJUSTMENTS																
First Block	2,3440	2,8760	2,6760	0	0	0	0	0	0	0	0	0	0	0	0	0
Second Block	1,9100	2,3430	2,1750	0	0	0	0	0	0	0	0	0	0	0	0	0
Third Block	1,4540	1,7840	1,5180	0	0	0	0	0	0	0	0	0	0	0	0	0
Fourth Block	1,3310	1,6330	1,3000	0	0	0	0	0	0	0	0	0	0	0	0	0
Fifth Block	0,7740	0,7930	0,7933	0	0	0	0	0	0	0	0	0	0	0	0	0
Sixth Block	1,7610	2,1610	1,9250	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Usage				1,304,091	0	716,625	0	421,549	0	534,747	0	0	0	0	0	3,215,565
USAGE CHARGE REVENUES Present				3,043,332	0	1,395,328	0	702,061	0	413,894	0	0	0	0	0	5,974,709
Proposed				3,734,038	0	1,711,889	0	861,338	0	424,054	0	0	0	0	0	7,246,834
Staff				3,474,200	0	1,563,171	0	762,605	0	424,215	0	0	0	0	0	6,683,406

ILLINOIS COMMERCE COMMISSION
 Cost of Service Study
 "Revenues at Present and Proposed Rates"

ITEM	RESIDENTIAL		COMMERCIAL		INDUSTRIAL		LARGE GENERAL SERVICE		MUNICIPALITIES FOR RESALE		TOTAL	
	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.		
OTHER ADJUSTMENTS												
Reconciliation	Present Proposed Staff	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	
TOTAL METERED REVENUES	Present Proposed Staff	4,941,101 6,062,600 5,751,336	0 0 0	1,714,336 2,103,310 1,944,495	0 0 0	760,898 933,527 832,721	0 0 0	418,946 429,232 429,267	0 0 0	426,586 523,481 466,945	0 0 0	8,261,867 10,652,151 9,424,763
PVT. FIRE PROT RATES, MONTHLY												
Size Connection	Less than 3"	3"	4"	6"	8"	10"	12"	15"	PRIVATE HYDRANTS			
Present	5.00	7.00	11.00	26.00	51.00	88.00	141.00	0.00	0.00	0.00	0.00	
Proposed	6.13	8.59	13.50	31.90	62.57	107.97	173.00	0.00	0.00	0.00		
Per Cost of Service Study	6.00	8.00	11.00	25.00	47.00	82.00	129.00	270.00	N/A	0.00		
Staff	6.00	8.00	11.00	25.00	47.00	82.00	129.00	270.00		0.00		
Units (ANNUAL)	48	48	360	1,236	552	188	48	0		0		
NON-METERED REVENUES												
Present	86,376											
Proposed	105,977											
Staff	81,444											
TOTAL REVENUES												
Present	4,941,101	1,714,336	760,898	418,946	426,586	751,826	9,013,693					
Proposed	6,062,600	2,103,310	933,527	429,232	523,481	917,490	10,969,641					
Staff	5,751,336	1,944,495	832,721	429,267	466,945	827,903	10,252,666					
PER STAFF												
Cost of Service	5,519,343	1,853,166	774,746	844,858	433,624	639,203	81,284					
Percent Increase	16.4	13.4	9.4	2.5	9.5	12.3	(5.7)					
Percent Cost of Service	104.2	104.9	107.5	50.8	107.7	100.1	100.2					
Overall Percent Increase per Staff	13.7%											
Ratio of Class % Increase to Overall % Increase	1.19	0.98	0.69	0.18	0.69							

MUNICIPAL JURISDICTION	PUBLIC FIRE		OTHER OPERATING REVENUES		TOTAL
	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	
Present	0	589,434	17,853	17,853	78,163
Proposed	0	698,503	17,853	17,853	95,158
Staff	0	639,678	17,853	17,853	88,928

MUNICIPAL JURISDICTION	LARGE GENERAL SER MUNICIPALITIES FOR RESALE		NON-METERED		TOTAL
	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	
Present	418,946	426,586	751,826	9,013,693	
Proposed	429,232	523,481	917,490	10,969,641	
Staff	429,267	466,945	827,903	10,252,666	

MUNICIPAL JURISDICTION	PVT. FIRE		NON-METERED		TOTAL
	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	
Present	86,376		751,826	9,013,693	
Proposed	105,977		917,490	10,969,641	
Staff	81,444		827,903	10,252,666	

ILLINOIS COMMERCE COMMISSION
Cost of Service Study
"Demand Factors"

Customer Class	DEMAND FACTORS	
	Max Day	Max Hour
Residential	2.25	3.30
Commercial	1.95	2.40
Industrial	1.30	1.70
Large General Service	1.30	1.70
Municipalities for Resale	1.75	2.50
Fire Protection	0.63	5.04
Gallons Per Minute	3,500	
Hours of Protection	3	

	MGD PUMPAGE
Average Daily Rate	8.200
Max. Daily Rate	10.756
Max. Hourly Pumpage Rate	12.520
Max. Hourly Consumption Rate (Pumpage plus Storage Drawdown)	13.870

ILLINOIS COMMERCE COMMISSION
 Cost of Service Study
 "Allocation to Cost Functions"

Description	Alloc. Code	Base Cost Percent	Extra Capacity		Customer Costs			Fire Service Percent
			Max Day Percent	Max Hour Percent	Billing Percent	Meter Percent	Services Percent	
Base Cost	1	100.00%						
Base-Max Day	2	76.24%	23.76%					
Base-Max Hr.	3	59.12%		40.88%				
Max Hour	4			100.00%				
Commercial	5				100.00%			
Meters	6					100.00%		
Services	7						100.00%	
Hydrants	8							100.00%
Plant	9	54.00%	16.01%	9.87%	0.00%	6.74%	9.83%	3.56%
Adm. and Gen.	10	35.27%	10.83%	4.56%	30.81%	10.02%	7.49%	1.02%
Labor B'fits	11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Base/Max Day/Max Hour	12	59.12%	18.43%	22.45%				

Refer to page 17 for brief allocation code explanations.

Act. No.	Account	Utility Cost	Depreciation Reserve	Net Cost	Base Cost	Extra Capacity	Max Hour	Billing	Customer Costs	Services	Fire Service	Alloc. Code
						Max Day			Meter			
	GENERAL PLANT											
303	Land and land rights	33,675	0	33,675	18,183	5,391	3,324	0	2,270	3,310	1,197	9
304	Structures and improvements	958,631	105,239	853,392	460,802	136,611	84,242	0	57,516	83,878	30,343	9
340	Office furniture	1,287,849	501,830	786,019	424,423	125,826	77,591	0	52,976	77,256	27,947	9
341	Transportation	777,776	349,382	428,394	231,318	68,577	42,288	0	28,873	42,106	15,232	9
342	Stores	37,232	12,028	25,204	13,609	4,035	2,488	0	1,699	2,477	896	9
343	Tools etc	367,164	138,835	228,329	123,290	36,551	22,539	0	15,389	22,442	8,118	9
344	Laboratory	111,693	84,672	27,021	14,590	4,326	2,667	0	1,821	2,656	961	9
345	Power operated	139,782	75,294	64,488	34,821	10,323	6,366	0	4,346	6,338	2,293	9
346	Communications	124,138	106,606	17,532	9,467	2,807	1,731	0	1,182	1,723	623	9
347	Miscellaneous	167,828	16,668	151,160	81,621	24,198	14,922	0	10,188	14,857	5,375	9
348	Other Tangible Plant	0	0	0	0	0	0	0	0	0	0	9
399	RECONCILIATION	0	0	0	0	0	0	0	0	0	0	9
	TOTAL PLANT IN SERVICE	56,227,546	14,285,588	41,941,958	22,711,332	6,691,752	4,126,482	0	2,817,380	4,108,686	1,486,316	
	Allocation Code 9			41,941,958	54,00%	16.01%	9.87%	0.00%	6.74%	9.83%	3.56%	
	Calculation											
	Small Main Plant in Service			4,828,477	2,854,615	889,804	1,084,057					
	Small Main CIAC			1,147,280	678,277	211,424	257,580					
	Total Plant CIAC			3,186,888	1,884,101	587,288	715,499					
	Allocated Total Plant less General			21,299,206	6,273,109	3,868,334	28,02%					
	% Small Main to Allocated Total Plant			13.40%	14.18%	14.18%	28.02%					
	Small Main with General Plant Allocated			3,043,875	949,187	1,156,403	1,156.403					
	Small Main with General Plant Allocated less CIAC			2,365,598	737,763	898,824	898.824					
	Allocated Total Plant less CIAC			20,827,231	6,104,464	3,410,993	26.35%					
	% Small Main less CIAC to Allocated Total Plant less CIAC			11.36%	12.09%	12.09%	26.35%					

Acct. No.	Account	Utility Cost	Staff Adjust.	Net Cost	Base Cost	Extra Capacity Max Day	Max Hour	Customer Costs Billing Meter	Services	Fire Service	Alloc. Code
SOURCE OF SUPPLY											
601	Salaries and Wages	11,317	0	11,317	8,628	2,689					2
610	Purchased water	0	0	0	0	0					1
615	Purchased Power	2,239	0	2,239	2,239						1
616	Fuel for Power Prod.	0	0	0	0	0					1
618	Chemicals	0	0	0	0	0					1
SOURCE OF SUPPLY											
620	Materials and Supplies	1,953	0	1,953	1,489	464					2
631	Contractual Serv.	0	0	0	0	0					2
635	Contractual Serv. - Testing	0	0	0	0	0					2
636	Contractual Serv. - Other	15,754	(3,373)	12,381	9,439	2,942					2
641	Rental of Property	0	0	0	0	0					2
642	Rental of Equipment	425	0	425	324	101					2
650	Transportation Exp.	298	0	298	227	71					2
658	Insurance	0	0	0	0	0					2
668	Water Res. Conserv. Exp.	0	0	0	0	0					2
675	Misc. Expenses	3,846	(419)	3,427	2,613	814					2
PUMPING EXPENSES											
348,597											
601	Salaries and Wages	15,509	0	15,509	9,169	2,858					12
615	Purchased Power	327,112	0	327,112	327,112						1
616	Fuel for power production	0	0	0	0	0					1
620	Materials and Supplies	2,654	0	2,654	1,569	489					12
631	Contractual Serv.	0	0	0	0	0					12
635	Contractual Serv. - Testing	0	0	0	0	0					12
636	Contractual Serv. - Other	3,323	(711)	2,612	1,544	481					12
641	Rental of Property	0	0	0	0	0					12
PUMPING EXPENSES											
1,365											
642	Rental of Equipment	1,351	0	1,351	799	249					12
650	Transportation Expenses	0	0	0	0	0					12
658	Insurance	0	0	0	0	0					12
673	Misc. Expenses	14	(2)	12	7	2					12
WATER TREATMENT EXPENSE											
600,544											
601	Salaries and Wages	317,949	0	317,949	242,394	75,556					2
615	Purchased Power	(1,223)	0	(1,223)	(932)	(291)					2
616	Fuel for power production	0	0	0	0	0					2
618	Chemicals	241,029	0	241,029	241,029	0					1
620	Materials and Supplies	42,788	0	42,788	32,620	10,168					2

ILLINOIS COMMERCE COMMISSION
Cost of Service Study
"Revenue Requirement Allocation"

Act. No.	Account	Utility Cost	Staff Adjust.	Net Cost	Base Cost	Extra Capacity Max Day	Max Hour	Billing	Customer Costs Meter	Services	Fire Service	Alloc. Code
WATER TREATMENT EXPENSE												
631	Contractual Serv.	0	0	0	0	0	0	0	0	0	0	2
635	Contractual Serv. - Testing	0	0	0	0	0	0	0	0	0	0	2
636	Contractual Serv. - Other	73,002	(15,630)	57,372	43,739	13,634	0	0	0	0	0	2
641	Rental of Property	0	0	0	0	0	0	0	0	0	0	2
642	Rental of Equipment	278	0	278	212	66	0	0	0	0	0	2
650	Transportation Exp.	2,448	0	2,448	1,866	582	0	0	0	0	0	2
658	Insurance	0	0	0	0	0	0	0	0	0	0	2
675	Misc. Expenses	32,283	(3,520)	28,763	21,928	6,835	0	0	0	0	0	2
TRANSMISSION/DISTRIBUTION												
601	Salaries and Wages	93,025	0	93,025	24,697	6,256	11,471	0	27,356	20,449	2,796	13
661	Storage Facilities	3,160	0	3,160	0	0	3,160	0	0	0	0	4
662	Meters	109,664	0	109,664	64,834	20,209	24,621	0	95,221	71,180	0	12
663	Meters	95,221	0	95,221	0	0	0	0	0	0	0	6
664	Services	71,180	0	71,180	0	0	0	0	0	0	0	7
615	Purchased Power	16,110	0	16,110	16,110	0	0	0	0	0	0	1
616	Fuel for Power Prod.	0	0	0	0	0	0	0	0	0	0	1
TRANSMISSION/DISTRIBUTION												
618	Chemicals	0	0	0	0	0	0	0	0	0	0	1
620	Materials and Supplies	29,040	0	29,040	7,710	1,953	3,581	0	8,540	6,384	873	13
672	Dist. reservoirs and standpipes	10,239	0	10,239	30	8	14	0	33	25	3	4
631	Contractual Serv.	144	(31)	113	0	0	0	0	0	0	0	13
635	Contractual Serv. - Testing	0	0	0	0	0	0	0	0	0	0	1
636	Contractual Serv. - Other	16,936	(3,626)	13,310	3,534	895	1,841	0	3,914	2,926	400	13
641	Rental of Property	0	0	0	0	0	0	0	0	0	0	13
677	Hydrants	9,732	0	9,732	0	0	87	0	0	0	9,732	8
642	Rental of Equipment	707	0	707	188	48	1,907	0	208	155	21	13
650	Transportation Exp.	8,495	0	8,495	5,023	1,566	1,907	0	0	0	0	12
658	Insurance	0	0	0	0	0	0	0	0	0	0	12
675	Misc. Expenses	11,939	(1,302)	10,637	2,824	715	1,312	0	3,128	2,338	320	13
CUSTOMER ACCOUNTS EXPENSE												
601	Salaries and Wages	278,035	0	278,035	0	0	0	278,035	0	0	0	5
615	Purchased Power	1,507	0	1,507	0	0	0	1,507	0	0	0	5
616	Fuel for Power Prod.	0	0	0	0	0	0	0	0	0	0	5
670	Bad Debt Expense	91,404	4,124	95,528	33,695	10,346	4,356	29,433	9,568	7,152	978	10
620	Materials and Supplies	23,081	0	23,081	0	0	0	23,081	0	0	0	5
CUSTOMER ACCOUNTS EXPENSE												
631	Contractual Serv.	0	0	0	0	0	0	0	0	0	0	5
635	Contractual Serv. - Testing	0	0	0	0	0	0	0	0	0	0	5
636	Contractual Serv. - Other	116,439	(24,929)	91,510	0	0	0	91,510	0	0	0	5
641	Meter Reading	0	0	0	0	0	0	0	0	0	0	5
642	Rental of Equipment	6,044	0	6,044	0	0	0	6,044	0	0	0	5
650	Transportation Exp.	10,460	0	10,460	0	0	0	10,460	0	0	0	5
658	Insurance	0	0	0	0	0	0	0	0	0	0	5
675	Misc. Expenses	18,657	(2,034)	16,623	0	0	0	16,623	0	0	0	5