

OFFICIAL COPY

INFORMATION SHEET

PRESIDING: Hearing Examiner Lemuel Hinton
PLACE: Mecklenburg County Courthouse, Charlotte, North Carolina
DATE: Thursday, September 20, 2018
TIME: 7:01 p.m. to 7:17 p.m.
DOCKET NOS.: W-1034, Sub 8
COMPANY: Water Resources, Inc.
DESCRIPTION: Application by Water Resources, Inc., 5970 Fairview Road, Suite 710, Charlotte, North Carolina 28210, for Authority to Increase Rates for Water Utility Service in Rocky River Plantation Subdivision in Cabarrus County and River Walk Subdivision in Mecklenburg County, North Carolina

APPEARANCES

(See attached.)

WITNESSES

(See attached.)

EXHIBITS

(See attached.)

COPIES ORDERED: Email: Little, Chiu, Henry, Furr
REPORTED BY: Marianne Aguirre
TRANSCRIBED BY: Marianne Aguirre
DATE TURNED IN: October 3, 2018

TRANSCRIPT PAGES: 19
PREFILED PAGES: 32
TOTAL PAGES: 51

FILED

OCT 03 2018

Clerk's Office
N.C. Utilities Commission

1 A P P E A R A N C E S:

2

3 FOR WATER RESOURCES, INC.:

4 Dennis Abbott, Pro Se

5 5970 Fairview Road, Suite 710

6 Charlotte, North Carolina 28210

7

8

9 FOR THE USING AND CONSUMING PUBLIC:

10 John Little, Esq.

11 Public Staff - North Carolina Utilities Commission

12 4326 Mail Service Center

13 Raleigh, North Carolina 27699-4300

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NORTH CAROLINA UTILITIES COMMISSION
PUBLIC STAFF - APPEARANCE SLIP

DATE September 20, 2018 DOCKET #: W=1034 Sub 8

PUBLIC STAFF MEMBER John Little

ORDER FOR TRANSCRIPT OF TESTIMONY TO BE **EMAILED** TO THE PUBLIC STAFF - PLEASE INDICATE YOUR DIVISION AS WELL AS YOUR EMAIL ADDRESS BELOW:

ACCOUNTING june.chiu@psncuc.nc.gov,

Windley.henry@psncuc.nc.gov

WATER david.furr@psncuc.nc.gov

COMMUNICATIONS _____

ELECTRIC _____

GAS _____

TRANSPORTATION _____

ECONOMICS _____

LEGAL john.little@psncuc.nc.gov

CONSUMER SERVICES _____

PLEASE NOTE: Electronic Copies of the regular transcript can be obtained from the NCUC web site at [HTTP://NCUC.commerce.state.nc.us/docksrch.html](http://NCUC.commerce.state.nc.us/docksrch.html) under the respective docket number.

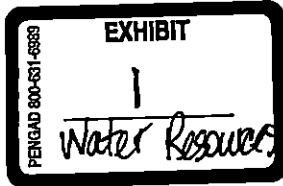
Number of copies of confidential portion of regular transcript (assuming a confidentiality agreement has been signed). Confidential pages will still be received in paper copies.

***PLEASE INDICATE BELOW WHO HAS SIGNED A CONFIDENTIALITY AGREEMENT. IF YOU DO NOT SIGN, YOU WILL NOT RECEIVE THE CONFIDENTIAL PORTIONS!!!

John D. Little

Signature of Public Staff Member

PS water



BEFORE THE NORTH CAROLINA UTILITIES COMMISSION
APPLICATION FOR RATE INCREASE

FILED
APR 18 2018
Clerk's Office
N.C. Utilities Commission

INSTRUCTIONS

Notes or explanations placed in the margins of the application are acceptable. If additional space is needed, supplementary sheets may be attached. If any section does not apply, write "not applicable" or cross out the section.

APPLICANT

- Trade name used for utility business Water Resources, Inc.
- Name of owner (if different from trade name) Dennis Abbott
- Business mailing address 5970 Fairview Rd, Suite 710
City and state Charlotte, NC Zip Code 28210
- Business street address (if different from mailing address) _____
- Business telephone number 704-643-9866
- List the counties in which you provide water utility service Mecklenburg, Cabarrus
- List the counties in which you provide sewer utility service N/A

PROPOSED AND PRESENT RATES

	<u>Proposed Rates</u>	<u>Present Rates</u>
8. Metered Residential Service:	10.18 per 1,000 - River Walk	9.42 per 1,000 Gallons - River Walk
Water:	3.10 per 1,000 - Rocky River	2.57 per 1,000 Gallons - Rocky River
Sewer:		
9. Flat Rate Residential Service:	40.68, zero usage - River Walk	- 37.67, zero usage - River Walk
Water:	11.20, zero usage - Rocky River	9.29, zero usage - Rocky River
Sewer:		
10. Nonresidential Service (explain):	<u>N/A</u>	<u>N/A</u>
Water:		
Sewer:		
11. Tap-on fees:	<u>N/A</u>	<u>685.00 - River Walk only</u>
Water:		
Sewer:		

OTHER PROPOSED RATES

- Finance charge for late payment: 1% per month to unpaid balance
(NCUC Rule R12-9) specifies not more than one percent (1.0%) per month will be applied to the unpaid balance of all bills still past due 25 days after billing date.)
- Reconnection charge if water service cut off by utility as specified in NCUC Rule R7-20: 40.00 - River Walk
23.94 - Rocky River
- Reconnection charge if water service discontinued at customer's request: 23.94 - Rocky River/40.00 - River Walk
- Reconnection charge if sewer service cut off by utility as specified in NCUC Rule R10-16: N/A
- Other charges: 40.00 - New Account Fee - River Walk Only/\$25.00 - Returned Check - River Walk
Only/40.00 Billing rates after hours, holidays, weekends - River Walk Only
- What date are the proposed rates to become effective? As soon as possible
- How long have the present rates been in effect? 1/27/2012 - River Walk 11/3/2002 - Rocky River

PROPOSED BILLING

- Frequency of billing shall be (monthly, quarterly, etc.) Monthly
- Billing shall be for service (in advance or arrears) Arrears
- Bills past due 15 days after the billing dates:
(NCUC Rule R12-9 specifies that bills shall not be past due less than fifteen (15) days after billing date).
- Will regular billing be by written statement? (yes or no) Yes

REVENUES AND EXPENSES

For 12 Months Ended 12/31/2017 (Date)

<u>Revenues</u>	<u>Water</u>	Sewer
1. Residential service (flat rate)	\$ 0	\$
2. Residential service (metered rate)	\$ 66310	\$
3. Nonresidential service (flat rate)	\$ 0	\$
4. Nonresidential service (metered rate)	\$ 0	\$
5. Other revenues (describe in remarks below)	\$ 26902	\$
6. Total Revenues (Lines 1 thru 5)	<u>\$ 93212</u>	<u>\$</u>
7. Total salaries	\$ 30667	\$
8. Administrative and office expense (except salaries)	\$ 15427	\$
9. Maintenance and repair expense (except salaries)	\$ 23968	\$
10. Transportation expenses	\$ 516	\$
11. Electric power for pumping	\$ 12611	\$
12. Chemicals for treatment	\$ 1105	\$
13. Testing fees	\$ 3090	\$
14. Permit fees	\$ 620	\$
15. Purchased water/sewer treatment	\$ 657	\$
16. Annual depreciation	\$ 0	\$
17. Taxes: State income taxes	\$ 0	\$
18. Federal income taxes	\$ 0	\$
19. Gross receipts (or franchise tax)	\$ 0	\$
20. Property taxes	\$ 1154	\$
21. Payroll taxes	\$ 2728	\$
22. Other taxes	\$ 258	\$
23. Other expenses (describe in remarks below)	\$ 0	\$
24. Total Expenses (Lines 7 thru 23)	<u>\$ 92801</u>	<u>\$</u>
25. Net Operating Income (Line 6 minus Line 24)	<u>\$ 411</u>	<u>\$</u>
26. Interest on debt during year	\$ 2128	\$
27. Net Income (Line 25 minus Line 26)	<u>\$ -1717</u>	<u>\$</u>

Remarks

28. Other Revenue: Mobile Phone Tower - Non utility income	
29.	
30.	
31.	
32.	

NUMBER OF CUSTOMERS SERVED
(at end of month)

	<u>Water</u>			Sewer		
	<u>Flat Rate Customers</u>	<u>Metered Customers</u>	<u>Gallons Sold to Metered Custs.</u>	<u>Flat Rate Customers</u>	<u>Metered Customers</u>	<u>Gallons Sold to Metered Custs.</u>
33. January	146	146	676713			
34. February		146	808095			
35. March		146	723906			
36. April		146	598718			
37. May		146	971823			
38. June		146	953161			
39. July		146	838405			
40. August		146	962041			
41. September		146	819754			
42. October		146	838630			
43. November		146	869725			
44. December		146	790369			

RR-114
RW-32

CONTRIBUTIONS IN AID OF CONSTRUCTION
(Including Tap Fees)

- Has the utility collected any gross-up on contributions in aid of construction (CIAC), such as contributed plant and tap fees, since the test year of its last rate case? (yes or no) Yes

EMPLOYEE SALARIES
(Including Owner)

Name	Duties	Salaries Paid During Year	Hours Worked During Year
2. <u>Dennis Abbott</u>	<u>President</u>	<u>\$ 24000</u>	<u>900</u>
3. <u>Taylor Puckett</u>	<u>A/R: Billing, Customer Service</u>	<u>\$ 4000</u>	<u>480</u>
4. <u>Samantha Kirilo</u>	<u>A/P: Accounting Services</u>	<u>\$ 4000</u>	<u>480</u>

FINANCIAL INFORMATION

Source of Loans (For Utility Purposes)	Interest Rates	Amount Unpaid End of Year
5. <u>Western Alliance Bank</u>	<u>5.50%</u>	<u>\$ 35,000</u>
6. _____	_____	<u>\$ _____</u>
7. _____	_____	<u>\$ _____</u>

OTHER FINANCIAL INFORMATION

8. Stocks issued	<u>\$ 100</u>
9. Accumulated (or retained) earnings or losses	<u>\$ 14253</u>
10. Cash on hand	<u>\$ 37389</u>
11. Accounts receivable	<u>\$ 8597</u>
12. Accounts payable	<u>\$ 4194</u>
13. Customer deposits on hand	<u>\$ 0</u>
14. Materials and supplies	<u>\$ 0</u>
15. Other investments	<u>\$ 0</u>

FILING INSTRUCTIONS

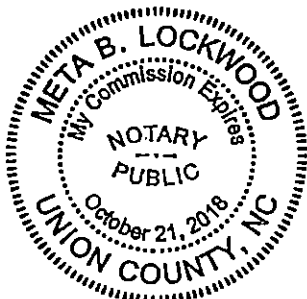
- Seven (7) copies of the application and exhibits shall be filed with the North Carolina Utilities Commission, 4325 Mail Service Center, Raleigh, North Carolina 27699-4325. Twenty-five (25) copies of a Class A or B utility company should be filed. One of these copies must have original signature. (Applicants must make their copies if desired.) Class A and B utility companies are also required to file a written letter of intent to file a general rate case with the Commission thirty (30) days in advance of filing this application. Furthermore, Class A utility companies should file a NCUC Form W-1 along with this rate increase application form as required in Rule R1-17(12)(d).
- Enclose a filing fee as required by G. S. §62-300. A Class A company (annual revenues of \$1,000,000 or more) requires a \$500 filing fee. A Class B company (annual revenues between \$200,000 and \$1,000,000) requires a \$250 filing fee. A Class C company (annual revenues less than \$200,000) requires a filing fee of \$100. **MAKE CHECK PAYABLE TO N.C. DEPARTMENT OF COMMERCE/UTILITIES COMMISSION.**

SIGNATURE

- Application shall be signed and verified by the Applicant.

Dennis C. Abbott
Signature
4/13/2018
Date

- (Typed or Printed Name) Dennis C. Abbott
personally appearing before me and being first duly sworn, says that the information contained in this application and in the exhibits attached hereto are true to the best of his/her knowledge and belief.



This the 13th day of April, 2018.
Meta Brockin Lockwood
Notary Public
5970 Fairview Rd., Ste 710
Charlotte, NC 28210
Address
My Commission Expires: 10/21/2018
Date

2017 Test Year

Calculation of Net Operating Income	O&M	Operating & Maintenance Expense	91047
	D&D	Depreciation Expense	0
	GRT	Gross Receipts Tax or Franchise Tax (Payroll)	2728
	IT	Income Tax	1154
	RR	Revenue Requirements	94929
		Net Operating Income for a return (94929 x 10%)	9493

Revenue Requirement Calculation		Amount	Retention Factor	Revenue Requirement
		Operating & Maintenance Expense	91047	
	Depreciation Expense	0		
	Gross Receipts Tax or Franchise Tax (Payroll)	2728		
	Income / Property Tax	1154		
	Total Operating Expenses	94929	0.959000	98987
	Net Operating Income	9493	0.758905	12509
				111496

Income Statement w/Proposed Increase Operation Ration Method	Revenues	111496	
	Expenses:		
	O&M Expenses	91047	
	Depreciation		
	Payroll Taxes	2728	
	Property Taxes	1154	
	NCUC Regulatory Fees	120	
	Gross Receipt Tax	4460	
		99509	
	State Income Tax	827	11987
Federal Income Tax	1674	11160	
Total Expenses	102010		
Net Operating Income for a return	9486		

	Given Data - Rocky River		Given Data - River Walk	
	Current	New	Current	New
Annualized # of bills based on EOP customer	1392 bills		384 bills	
Annualized consumption based on EOP customers	7736857 gallons		2114483 gallons	
Base charge at present rates	9.29 per bill	11.20 per bill	37.67 per bill	40.68 per bill
Usage charge at present rates	2.57 per 1,000 gal	3.10 per 1,000	9.42 per 1,000 gal	10.18 per 1,000
EOP adjusted revenues at present rates	\$32,815		\$34,383	
Assumed New Revenue Requirement Needed	\$39,550		\$37,134	
Design Rates				
Percent of Increase needed:				
Revenues required	39550		37134	
Revenues at present rates	32815		34383	
Increase needed	6735		2751	
Percent of increase:	0.2052	20.52%	0.0800	8.00%
Increase present base charge by 20.52%:	9.29 x 1.2052 = 11.20 x 1392 =	11.20 \$15,590	37.67 x 1.08 = 40.68 x 384 =	40.68 \$15,621
Determine remaining revenue for usage:				
New revenue requirement	\$39,550		\$37,134	
Less base charge revenues	\$15,590		\$15,621	
Remaining revenues	\$23,960		\$21,513	
Calculate new usage charge:				
Remaining revenues	\$23,960		\$21,513	
Divided by usage	7736857		2114483	
New usage charge	0.0030969	or \$3.10 per 1,000	0.0101741	or \$10.18 per 1,000

I/A

INDEX TO CHIU-EXHIBIT I

<u>Title</u>	<u>Schedule No.</u>
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4. CALCULATION OF PLANT IN SERVICE, ACCUMULATED DEPRECIATION, AND DEPRECIATION EXPENSE - ROCKY RIVER	2-1(a)
5. ORIGINAL COST RATE BASE - RIVER WALK	2(b)
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9. FOOTNOTES TO SCHEDULE 3 - ROCKY RIVER	3(a) Page 2
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11. CALCULATION OF ALLOCATION OF REVENUES AND EXPENSES	3-1
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16. CALCULATION OF INCOME TAXES - ROCKY RIVER	3-6(a)
17. CALCULATION OF INCOME TAXES - RIVER WALK	3-6(b)
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Water Resources, Inc.
Docket No. W-1034, Sub 8
MARGIN ON OPERATING REVENUE DEDUCTIONS
REQUIRING A RETURN
For the Test Year Ended December 31, 2017
Rocky River

Public Staff
Chiu Exhibit I
Schedule 1(a)

<u>Line No.</u>	<u>Item</u>	<u>Present Rates</u> (a)	<u>Company Proposed Rates</u> (b)
1.	Net operating income for a return	(\$23,942) [1]	(\$17,174) [4]
2.	Operating revenue deductions requiring a return	<u>55,981</u> [2]	<u>55,981</u> [5]
3.	Return	<u>-42.77%</u> [3]	<u>-30.68%</u> [3]

[1] Chiu Exhibit I, Schedule 3(a), Line 30, Column (c).

[2] Chiu Exhibit I, Schedule 3(a), Line 19 + Line 20 + Line 21 + Line 22 + Line 23 + Line 24, Column (c).

[3] Line 1 divided by Line 2.

[4] Chiu Exhibit I, Schedule 3(a), Line 30, Column (e).

[5] Chiu Exhibit I, Schedule 3(a), Line 19 + Line 20 + Line 21 + Line 22 + Line 23 + Line 24, Column (e).

Water Resources, Inc.
Docket No. W-1034, Sub 8
MARGIN ON OPERATING REVENUE DEDUCTIONS
REQUIRING A RETURN
For the Test Year Ended December 31, 2017
River Walk

Public Staff
Chiu Exhibit I
Schedule 1(b)

Line No.	Item	Present Rates (a)	Company Proposed Rates (b)	Public Staff Recommended Rates (c)
1.	Net operating income for a return	\$2,815 [1]	\$4,872 [4]	\$2,223 [6]
2.	Operating revenue deductions requiring a return	<u>29,646 [2]</u>	<u>29,646 [5]</u>	<u>29,646 [7]</u>
3.	Return	<u>9.49% [3]</u>	<u>16.43% [3]</u>	<u>7.50% [8]</u>

- [1] Chiu Exhibit I, Schedule 3(b), Line 30, Column (c).
- [2] Chiu Exhibit I, Schedule 3(b), Line 19 + Line 20 + Line 21 + Line 22 + Line 23 + Line 24, Column (c).
- [3] Line 1 divided by Line 2.
- [4] Chiu Exhibit I, Schedule 3(b), Line 30, Column (e).
- [5] Chiu Exhibit I, Schedule 3(b), Line 19 + Line 20 + Line 21 + Line 22 + Line 23 + Line 24, Column (e).
- [6] Line 2 x Line 3.
- [7] Chiu Exhibit I, Schedule 3(b), Line 19 + Line 20 + Line 21 + Line 22 + Line 23 + Line 24, Column (g).
- [8] Provided by Public Staff Financial Analyst Hinton.

Water Resources, Inc.
Docket No. W-1034, Sub 8
ORIGINAL COST RATE BASE
For the Test Year Ended December 31, 2017
Rocky River

Public Staff
Chiu Exhibit I
Schedule 2(a)

<u>Line No.</u>	<u>Item</u>	<u>Per Application (a)</u>	<u>Public Staff Adjustments (b) [1]</u>	<u>After Public Staff Adjustments (c)</u>
1.	Plant in service	\$47,425	\$30,318	\$77,743 [2]
2.	Accumulated depreciation	(44,425)	(27,121)	(71,546) [3]
3	Contributions in aid of construction	<u>0</u>	<u>(13,295)</u>	<u>(13,295) [4]</u>
4.	Net plant in service (L1 + L2 + L3)	3,000	(10,098)	(7,098)
5.	Cash working capital	0	6,498	6,498 [5]
6.	Average tax accruals	<u>0</u>	<u>(576)</u>	<u>(576) [6]</u>
7.	Original cost rate base (Sum of L5 thru L6)	<u>\$3,000</u>	<u>(\$4,176)</u>	<u>(\$1,176)</u>

- [1] Column (c) - Column (a).
- [2] Chiu Exhibit I, Schedule 2-1(a), Line 21, Column (a).
- [3] Chiu Exhibit I, Schedule 2-1(a), Line 21, Column (f).
- [4] CIAC from previous rate case
- [5] One-eighth of O&M expenses.
- [6] One-half of property tax plus one-fifth of payroll tax.

Water Resources, Inc.
Docket No. W-1034, Sub 8
**CALCULATION OF PLANT IN SERVICE, ACCUMULATED
DEPRECIATION, AND DEPRECIATION EXPENSE**
For the Test Year Ended December 31, 2017
Rocky River

Public Staff
Chiu Exhibit I
Schedule 2-1(a)

Line No.	Item	Plant In Service [1] (a)	Year Placed In Service [1] (b)	Life (c)	Years in Service [3] (d)	Annual Depreciation [4] (e)	Accumulated Depreciation [5] (f)
<u>Amounts in prior rate case:</u>							
1.	Land	\$3,000	1988	n/a	n/a	n/a	n/a
2.	Water system installed in 1988	14,600	1988	25	29.50	0	(14,600)
3.	Organizational costs	10,017	1993	25	24.50	401	(9,825)
4.	Meters, connections, etc.	4,425	1994	20	23.50	0	(4,425)
5.	Fence, storage tank	3,400	1994	25	23.50	136	(3,196)
6.	Meters, connections, etc.	5,321	1995	20	22.50	0	(5,321)
7.	McMillan Acres expansion	7,196	1995	25	22.50	288	(6,480)
8.	Meters, installation only	518	1996	20	21.50	0	(518)
9.	Pump	6,540	1996	10	21.50	0	(6,540)
10.	Meters, connections, etc.	874	1996	20	21.50	0	(874)
11.	Meters, installation only	390	1997	20	20.50	0	(390)
12.	Meters, connections, etc.	385	1998	20	19.50	19	(371)
13.	Meters, connections, etc.	206	2000	20	17.50	10	(175)
14.	Meters, connections, etc.	165	2001	20	16.50	8	(132)
15.	Clearing trees & stumps	2,360	2001	10	16.50	0	(2,360)
16.	Pumps	7,372	1999	10	18.50	0	(7,372)
17.	Pumps	6,508	2000	10	17.50	0	(6,508)
18.	Pumps	1,957	2001	10	16.50	0	(1,957)
19.	Total from prior rate case (Sum of Lines 1 - 18)	<u>75,234</u>				<u>862</u>	<u>(71,044)</u>
<u>Additions since last rate case:</u>							
20.	Well Pump Motor	<u>2,509</u> [2]	2017		5 [2]	1.00	<u>502</u>
21.	Total plant in service L19 + L20)	<u>\$77,743</u>				<u>\$1,364</u>	<u>(\$71,546)</u>

- [1] Amount approved in last general rate case, Docket No. W-1034, Sub 4.
[2] Per Public Staff Engineer Furr.
[3] Based on year placed in service using half year convention.
[4] Column (a) divided by Column (c), unless fully depreciated.
[5] Column (d) x Column (e), unless fully depreciated.

Water Resources, Inc.
Docket No. W-1034, Sub 8
ORIGINAL COST RATE BASE
For the Test Year Ended December 31, 2017
River Walk

Public Staff
Chiu Exhibit I
Schedule 2(b)

<u>Line No.</u>	<u>Item</u>	<u>Per Application (a)</u>	<u>Public Staff Adjustments (b)</u>	<u>After Public Staff Adjustments (c)</u>
1.	Plant in service	\$0	\$33,633	\$33,633 [2]
2.	Accumulated depreciation	0	(15,023)	(15,023) [3]
3	Contributions in aid of construction	<u>0</u>	<u>0</u>	<u>0</u>
4.	Net plant in service (L1 + L2 + L3)	0	18,610	18,610
5.	Cash working capital	0	3,438	3,438 [4]
6.	Average tax accruals	<u>0</u>	<u>(197)</u>	<u>(197) [5]</u>
7.	Original cost rate base (Sum of L5 thru L6)	<u>\$0</u>	<u>\$21,851</u>	<u>\$21,851</u>

[1] Column (c) - Column (a).

[2] Chiu Exhibit I, Schedule 2-1(b), Line 9, Column (a).

[3] Chiu Exhibit I, Schedule 2-1(b), Line 9, Column (f).

[4] One-eighth of O&M expenses.

[5] One-half of property tax plus one-fifth of payroll tax.

Water Resources, Inc.
Docket No. W-1034, Sub 8
**CALCULATION OF PLANT IN SERVICE, ACCUMULATED
DEPRECIATION, AND DEPRECIATION EXPENSE**
For the Test Year Ended December 31, 2017
River Walk

Public Staff
Chiu Exhibit I
Schedule 2-1(b)

Line No.	Item	Plant In Service [1] (a)	Year Placed In Service [1] (b)	Life [1] (c)	Years in Service [2] (d)	Annual Depreciation [3] (e)	Accumulated Depreciation [4] (f)
Amounts In franchise proceeding:							
1.	Water system installed in 2002	\$18,495	2002	30	15.50	\$617	(\$9,564)
2.	35 gallon poly solution tank	91	2007	5	10.50	0	(91)
3.	Chemical feed pump (installed)	665	2007	3	10.50	0	(665)
4.	Meter spuds and meters	243	2007	30	10.50	8	(84)
5.	Meter boxes	195	2010	30	7.50	7	(53)
6.	Cut-off vales	177	2010	15	7.50	12	(90)
7.	Meters	75	2010	30	7.50	3	(23)
8.	Organizational costs	<u>13,692</u>	2011	20	6.50	685	(4,453)
9.	Total from prior rate case (Sum of Lines 1 thru L8)	<u>\$33,633</u>				<u>\$1,332</u>	<u>(\$15,023)</u>

[1] Amount approved in franchise proceeding Docket No. W-1034, Sub 6.

[2] Based on year placed in service using half year convention.

[3] Column (a) divided by Column (c), unless fully depreciated.

[4] Column (d) x Column (e), unless fully depreciated.

Water Resources, Inc.
Docket No. W-1034, Sub 8
NET OPERATING INCOME FOR A RETURN
For the Test Year Ended December 31, 2017
Rocky River

Public Staff
Chiu Exhibit I
Schedule 3(a)
Page 1 of 2

Line No.	Item	Present Rates			Company Proposed Rates	
		Per Application (a)	Public Staff Adjustments [1] (b)	Per Public Staff [2] (c)	Net Company Increase [12] (d)	Operations After Rate Increase [13] (e)
1.	Operating Revenues:					
2.	Service revenues	\$31,926	\$903	\$32,829 [3]	\$6,778	\$39,607 [3]
3.	Other revenues	20,922	(20,879)	43 [4]	0	43
4.	Bad debt	0	(788)	(788) [5]	0	(788)
5.	Total operating revenues	<u>52,848</u>	<u>(20,764)</u>	<u>32,084</u>	<u>6,778</u>	<u>38,862</u>
6.	Operating Revenue Deductions:					
7.	Salaries	23,945	0	23,945	0	23,945
8.	Administrative and office	11,949	(3,939)	8,010 [6]	0	8,010
9.	Maintenance and repair	13,384	(3,235)	10,149 [3]	0	10,149
10.	Transportation expenses	403	(403)	0 [3]	0	0
11.	Electric power	6,210	0	6,210	0	6,210
12.	Chemicals	553	243	796 [3]	0	796
13.	Testing	2,130	(307)	1,823 [3]	0	1,823
14.	Permit fees	350	0	350 [3]	0	350
15.	Professional fees	0	0	0 [3]	0	0
16.	Purchased water treatment	657	(30)	627 [3]	0	627
17.	Rate case expense	0	77	77 [7]	0	77
18.	Interest expense	1,667	(1,667)	0	0	0
19.	Total O&M expenses	<u>61,248</u>	<u>(9,261)</u>	<u>51,987</u>	<u>0</u>	<u>51,987</u>
20.	Depreciation expense	0	1,364	1,364 [8]	0	1,364
21.	Amortization expense	0	0	0	0	0
22.	Property taxes	967	(668)	299 [3]	0	299
23.	Payroll taxes	2,130	0	2,130	0	2,130
24.	Other taxes	201	0	201	0	201
25.	Regulatory fee	0	45	45 [9]	9	54 [9]
26.	Gross receipts tax	0	0	0	0	0
27.	State income tax	0	0	0 [10]	0	0 [14]
28.	Federal income tax	0	0	0 [11]	0	0 [15]
29.	Total operating revenue deductions	<u>64,546</u>	<u>(8,520)</u>	<u>56,026</u>	<u>9</u>	<u>56,035</u>
30.	Net operating income for return	<u>(\$11,698)</u>	<u>(\$12,244)</u>	<u>(\$23,942)</u>	<u>\$6,769</u>	<u>(\$17,174)</u>

Water Resources, Inc.
Docket No. W-1034, Sub 8
FOOTNOTES TO SCHEDULE 3
For the Test Year Ended December 31, 2017
Rocky River

Public Staff
Chiu Exhibit I
Schedule 3(a)
Page 2 of 2

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (b), unless otherwise footnoted.
- [3] Per Public Staff Engineer Furr.
- [4] Chiu Exhibit I, Schedule 3-2, Line 3, Column (a) .
- [5] Chiu Exhibit I, Schedule 3-3, Line 3, Column (a).
- [6] Chiu Exhibit I, Schedule 3-4, Line 3, Column (a).
- [7] Chiu Exhibit I, Schedule 3-5, Line 6, Column (b).
- [8] Chiu Exhibit I, Schedule 2-1(a), Line 21, Column (e).
- [9] Line 5 multiplied by 0.14%.
- [10] Chiu Exhibit I, Schedule 3-6(a), Line 14, Column (a).
- [11] Chiu Exhibit I, Schedule 3-6(a), Line 16, Column (a).
- [12] Column (e) minus Column (c), unless otherwise footnoted.
- [13] Column (c) plus Column (d), unless otherwise footnoted.
- [14] Chiu Exhibit I, Schedule 3-6(a), Line 14, Column (b).
- [15] Chiu Exhibit I, Schedule 3-6(a), Line 16, Column (b).

Water Resources, Inc.
Docket No. W-1034, Sub 8
NET OPERATING INCOME FOR A RETURN
For the Test Year Ended December 31, 2017
River Walk

Public Staff
Chiu Exhibit I
Schedule 3(b)
Page 1 of 2

Line No.	Item	Present Rates		Company Proposed Rates			Public Staff Recommended Rates	
		Per Application (a)	Public Staff Adjustments [1] (b)	Per Public Staff [2] (c)	Net Company Increase [12] (d)	Operations After Rate Increase [13] (e)	Net Public Staff Decrease [16] (f)	Operations After Rate Decrease [17] (g)
1.	Operating Revenues:							
2.	Service revenues	\$34,384	(\$916)	\$33,468 [3]	\$2,689	\$36,157 [3]	(\$773)	\$32,696 [18]
3.	Other revenues	5,981	(5,862)	119 [4]	0	119	0	119
4.	Bad debt	0	(221)	(221) [5]	0	(221)	0	(221)
5.	Total operating revenues	<u>40,365</u>	<u>(6,999)</u>	<u>33,366</u>	<u>2,689</u>	<u>36,055</u>	<u>(773)</u>	<u>32,593</u>
6.	Operating Revenue Deductions:							
7.	Salaries	6,722	0	6,722	0	6,722	0	6,722
8.	Administrative and office	3,478	(1,106)	2,372 [6]	0	2,372	0	2,372
9.	Maintenance and repair	10,584	(759)	9,825 [3]	0	9,825	0	9,825
10.	Transportation expenses	113	(113)	0 [3]	0	0	0	0
11.	Electric power	6,401	0	6,401	0	6,401	0	6,401
12.	Chemicals	552	(328)	224 [3]	0	224	0	224
13.	Testing	960	711	1,671 [3]	0	1,671	0	1,671
14.	Permit fees	270	0	270 [3]	0	270	0	270
15.	Professional fees	0	0	0	0	0	0	0
16.	Purchased water treatment	0	0	0	0	0	0	0
17.	Rate case expense	0	21	21 [7]	0	21	0	21
18.	Interest expense	461	(461)	0	0	0	0	0
19.	Total O&M expenses	<u>29,541</u>	<u>(2,035)</u>	<u>27,506</u>	<u>0</u>	<u>27,506</u>	<u>0</u>	<u>27,506</u>
20.	Depreciation expense	0	1,332	1,332 [8]	0	1,332	0	1,332
21.	Amortization expense	0	0	0	0	0	0	0
22.	Property taxes	187	(34)	153 [3]	0	153	0	153
23.	Payroll taxes	598	0	598	0	598	0	598
24.	Other taxes	57	0	57	0	57	0	57
25.	Regulatory fee	0	47	47 [9]	4	50 [9]	(1)	46 [9]
26.	Gross receipts tax	0	0	0	0	0	0	0
27.	State income tax	0	110	110 [10]	81	191 [14]	(23)	87 [19]
28.	Federal income tax	0	748	748 [11]	547	1,295 [15]	(157)	591 [20]
29.	Total operating revenue deductions	<u>30,383</u>	<u>168</u>	<u>30,551</u>	<u>632</u>	<u>31,182</u>	<u>(181)</u>	<u>30,370</u>
30.	Net operating income for return	<u>\$9,982</u>	<u>(\$7,167)</u>	<u>\$2,815</u>	<u>\$2,057</u>	<u>\$4,872</u>	<u>(\$591)</u>	<u>\$2,223</u>

Water Resources, Inc.
Docket No. W-1034, Sub 8
FOOTNOTES TO SCHEDULE 3
For the Test Year Ended December 31, 2017
River Walk

Public Staff
Chiu Exhibit I
Schedule 3(b)
Page 2 of 2

- [1] Column (c) minus Column (a), unless otherwise footnoted.
- [2] Column (a) plus Column (b), unless otherwise footnoted.
- [3] Per Public Staff Engineer Furr.
- [4] Chiu Exhibit I, Schedule 3-2, Line 3, Column (b) .
- [5] Chiu Exhibit I, Schedule 3-3, Line 3, Column (b).
- [6] Chiu Exhibit I, Schedule 3-4, Line 3, Column (b).
- [7] Chiu Exhibit I, Schedule 3-5, Line 6, Column (c).
- [8] Chiu Exhibit I, Schedule 2-1(b), Line 9, Column (e).
- [9] Line 5 multiplied by 0.14%.
- [10] Chiu Exhibit I, Schedule 3-6(b), Line 14, Column (a).
- [11] Chiu Exhibit I, Schedule 3-6(b), Line 16, Column (a).
- [12] Column (e) minus Column (c), unless otherwise footnoted.
- [13] Column (c) plus Column (d), unless otherwise footnoted.
- [14] Chiu Exhibit I, Schedule 3-6(b), Line 14, Column (b).
- [15] Chiu Exhibit I, Schedule 3-6(b), Line 16, Column (b).
- [16] Column (g) minus Column (c), unless otherwise footnoted.
- [17] Column (a) plus Column (f), unless otherwise footnoted.
- [18] Revenue requirement as calculated by the Public Staff.
- [19] Chiu Exhibit I, Schedule 3-6(b), Line 14, Column (c).
- [20] Chiu Exhibit I, Schedule 3-6(b), Line 16, Column (c).

Water Resources, Inc.
Docket No. W-1034, Sub 8
CALCULATION OF ALLOCATION OF REVENUES AND EXPENSES
For the Test Year Ended December 31, 2017

Public Staff
Chiu Exhibit I
Schedule 3-1

Line No.	Item	Amount Per Application (a)	Rocky River (b)	River Walk (c)
1.	Service revenues	\$66,310	\$31,926 [1]	\$34,384 [1]
2.	Other revenues - allocated	26,741	20,879 [2]	5,862 [3]
3.	Other revenues - directly assigned	161	43 [1]	119 [1]
4.	Total Revenues (L1 + L2)	<u>\$93,212</u>	<u>\$52,848</u>	<u>\$40,365</u>
5.	Salaries and wages	30,667	23,945 [2]	6,722 [3]
6.	Administrative and office - allocated	15,304	11,949 [2]	3,355 [3]
7.	Administrative and office - directly assigned	123	0 [1]	123 [1]
8.	Maintenance and repair	23,968	13,384 [1]	10,584 [1]
9.	Transportation	516	403 [2]	113 [3]
10.	Purchased power	12,611	6,210 [1]	6,401 [1]
11.	Chemicals	1,105	553 [1]	552 [1]
12.	Testing	3,090	2,130 [1]	960 [1]
13.	Permit fees	620	350 [1]	270 [1]
14.	Purchased power treatment	657	657 [1]	0 [1]
15.	Property tax - allocated	854	667 [2]	187 [3]
16.	Property tax - directly assigned	300	300 [1]	0 [1]
17.	Payroll tax	2,728	2,130 [2]	598 [3]
18.	Other taxes	258	201 [2]	57 [3]
19.	Interest on debt - allocated	2,102	1,641 [2]	461 [3]
20.	Interest on debt - directly assigned	26	26 [1]	0 [1]
21.	Total Expenses (Sum of L5 thru L20)	<u>\$94,929</u>	<u>\$64,546</u>	<u>\$30,383</u>

[1] Column (a) amounts directly assigned.

[2] Column (a) multiplied by Rocky River customer allocation factor of 78.08%.

[3] Column (a) multiplied by River Walk customer allocation factor of 21.92%.

Water Resources, Inc.
Docket No. W-1034, Sub 8
CALCULATION OF OTHER REVENUE
For the Test Year Ended December 31, 2017

Public Staff
Chiu Exhibit I
Schedule 3-2

<u>Line No.</u>	<u>Item</u>	<u>Rocky River (a)</u>	<u>River Walk (b)</u>
1.	Other revenue per application	\$20,922	\$5,981
2.	Adjustment to remove non-utility antennae lease revenue	<u>(20,879) [1]</u>	<u>(5,862) [1]</u>
3.	Other revenue per Public Staff (L1 + L2)	<u><u>\$43</u></u>	<u><u>\$119</u></u>

[1] Per examination of Company's financial records.

Water Resources, Inc.
Docket No. W-1034, Sub 8
CALCULATION OF BAD DEBT
For the Test Year Ended December 31, 2017

Public Staff
Chiu Exhibit I
Schedule 3-3

<u>Line No.</u>	<u>Item</u>	<u>Rocky River (a)</u>	<u>River Walk (b)</u>
1.	Bad debt reclassified from administrative & office	(\$3,939) [1]	(\$1,106) [2]
2.	Amortization period in years	<u>5</u>	<u>5</u>
3.	Bad debt per Public Staff (L1 / L2)	<u><u>(\$788)</u></u>	<u><u>(\$221)</u></u>

[1] Chiu Exhibit I, Schedule 3-4, Line 2, Column (a).

[2] Chiu Exhibit I, Schedule 3-4, Line 2, Column (b).

Water Resources, Inc.
Docket No. W-1034, Sub 8
CALCULATION OF ADMINISTRATIVE AND OFFICE EXPENSES
For the Test Year Ended December 31, 2017

Public Staff
Chiu Exhibit I
Schedule 3-4

<u>Line No.</u>	<u>Item</u>	<u>Rocky River (a)</u>	<u>River Walk (b)</u>
1.	Administrative and office expense per application	\$11,949	\$3,478
2.	Adjustment to reclassify bad debt expense	<u>(3,939) [1]</u>	<u>(1,106) [1]</u>
3.	Administrative and office expense per Public Staff (L1 + L2)	<u>\$8,010</u>	<u>\$2,372</u>

[1] Per examination of Company's financial records.

Water Resources, Inc.
Docket No. W-1034, Sub 8
CALCULATION OF RATE CASE EXPENSE
For the Test Year Ended December 31, 2017

Public Staff
Chiu Exhibit I
Schedule 3-5

<u>Line No.</u>	<u>Item</u>	<u>Amount</u> (a)	<u>Rocky River</u> (b)	<u>River Walk</u> (c)
1.	Cost to mail notices	\$193 [1]		
2.	NCUC filing fees	100 [2]		
3.	Legal expense	<u>0</u>		
4.	Total regulatory expense (Sum of L1 thru L3)	293		
5.	Amortization period in years	<u>3</u>		
6.	Annual regulatory expense (L4 / L5)	<u>\$98</u>	<u>\$77</u>	<u>\$21</u>

[1] Based on 146 customers times 2 (mailings) times \$.66 for stamps, envelopes, and copying.
[2] Filing fee per application.

Water Resources, Inc.
Docket No. W-1034, Sub 8
CALCULATION OF INCOME TAXES
For the Test Year Ended December 31, 2017
Rocky River

Public Staff
Chiu Exhibit I
Schedule 3-6(a)

<u>Line No.</u>	<u>Item</u>	<u>Present Rates</u> [1] (a)	<u>Company Proposed Rates</u> [2] (b)
1.	Operating revenue	<u>\$32,084</u>	<u>\$38,862</u>
2.	Operating revenue deductions:		
3.	O & M expenses	51,987	51,987
4.	Depreciation expense	1,364	1,364
5.	Amortization expense	0	0
6.	Property taxes	299	299
7.	Payroll taxes	2,130	2,130
8.	Other taxes	201	201
9.	Regulatory fee	45	54
10.	Gross receipts tax	0	0
11.	Interest expense	<u>0</u>	<u>0</u>
12.	Total deductions (Sum of L3 thru L11)	<u>56,026</u>	<u>56,035</u>
13.	Taxable income (L1 - L12)	<u>(23,942)</u>	<u>(17,174)</u>
14.	State income tax (L13 x 3%)	<u>0</u>	<u>0</u>
15.	Federal taxable income (L13 - L14)	<u>(23,942)</u>	<u>(17,174)</u>
16.	Federal income tax (L15 x 21%)	<u>0</u>	<u>0</u>
17.	Net amount (L15 - L16)	(23,942)	(17,174)
18.	Add: Interest expense	<u>0</u>	<u>0</u>
19.	Net income for return (L17 + L18)	<u><u>(\$23,942)</u></u>	<u><u>(\$17,174)</u></u>

- [1] Chiu Exhibit I, Schedule 3(a), Column (c).
[2] Chiu Exhibit I, Schedule 3(a), Column (e).

Water Resources, Inc.
Docket No. W-1034, Sub 8
CALCULATION OF INCOME TAXES
For the Test Year Ended December 31, 2017
River Walk

Public Staff
Chiu Exhibit I
Schedule 3-6(b)

Line No.	Item	Present Rates [1] (a)	Company Proposed Rates [2] (b)	Public Staff Recommended Rates [3] (c)
1.	Operating revenue	\$33,366	\$36,055	\$32,593
2.	Operating revenue deductions:			
3.	O & M expenses	27,506	27,506	27,506
4.	Depreciation expense	1,332	1,332	1,332
5.	Amortization expense	0	0	0
6.	Property taxes	153	153	153
7.	Payroll taxes	598	598	598
8.	Other taxes	57	57	57
9.	Regulatory fee	47	50	46
10.	Gross receipts tax	0	0	0
11.	Interest expense	0	0	0
12.	Total deductions (Sum of L3 thru L11)	29,693	29,696	29,692
13.	Taxable income (L1 - L12)	3,673	6,358	2,901
14.	State income tax (L13 x 3%)	110	191	87
15.	Federal taxable income (L13 - L14)	3,563	6,167	2,814
16.	Federal income tax (L15 x 21%)	748	1,295	591
17.	Net amount (L15 - L16)	2,815	4,872	2,223
18.	Add: Interest expense	0	0	0
19.	Net income for return (L17 + L18)	\$2,815	\$4,872	\$2,223

- [1] Chiu Exhibit I, Schedule 3(b), Column (c).
[2] Chiu Exhibit I, Schedule 3(b), Column (e).
[3] Chiu Exhibit I, Schedule 3(b), Column (g).

Water Resources, Inc.
Docket No. W-1034, Sub 8
CALCULATION OF OPERATING RATIOS
For the Test Year Ended December 31, 2017
Rocky River

Public Staff
Chiu Exhibit I
Schedule 4(a)

<u>Line No.</u>	<u>Item</u>	<u>Present Rates</u> (a)	<u>Company Proposed Rates</u> (b)
<u>Interest expense, regulatory fee, gross receipts, and income taxes included:</u>			
1.	Gross operating revenues	\$32,084 [1]	\$38,862 [5]
2.	Operating expenses	<u>56,026 [2]</u>	<u>56,035 [6]</u>
3.	Operating ratios (L2 / L1)	<u>174.62%</u>	<u>144.19%</u>

Interest expense, regulatory fee, gross receipts,

4.	Gross operating revenues	\$32,039 [3]	\$38,807 [7]
5.	Operating expenses	<u>55,981 [4]</u>	<u>55,981 [8]</u>
6.	Operating ratios (L5 / L4)	<u>174.73%</u>	<u>144.25%</u>

- [1] Chiu Exhibit I, Schedule 3(a), Line 5, Column (c).
[2] Chiu Exhibit I, Schedule 3(a), Line 29, Column (c).
[3] Chiu Exhibit I, Schedule 3(a), Line 5 - Line 25 - Line 26 - Line 27 - Line 28, Column (c).
[4] Chiu Exhibit I, Schedule 3(a), Line 29 - Line 25 - Line 26 - Line 27 - Line 28, Column (c).
[5] Chiu Exhibit I, Schedule 3(a), Line 5, Column (e).
[6] Chiu Exhibit I, Schedule 3(a), Line 29, Column (e).
[7] Chiu Exhibit I, Schedule 3(a), Line 5 - Line 25 - Line 26 - Line 27 - Line 28, Column (e).
[8] Chiu Exhibit I, Schedule 3(a), Line 29 - Line 25 - Line 26 - Line 27 - Line 28, Column (e).

Water Resources, Inc.
Docket No. W-1034, Sub 8
CALCULATION OF OPERATING RATIOS
For the Test Year Ended December 31, 2017
River Walk

Public Staff
Chiu Exhibit I
Schedule 4(b)

<u>Line No.</u>	<u>Item</u>	<u>Present Rates</u> (a)	<u>Company Proposed Rates</u> (b)	<u>Public Staff Recommended Rates</u> (c)
<u>Interest expense, regulatory fee, gross receipts, and income taxes included:</u>				
1.	Gross operating revenues	\$33,366 [1]	\$36,055 [5]	\$32,593 [9]
2.	Operating expenses	<u>30,551 [2]</u>	<u>31,182 [6]</u>	<u>30,370 [10]</u>
3.	Operating ratios (L2 / L1)	<u>91.56%</u>	<u>86.49%</u>	<u>93.18%</u>

Interest expense, regulatory fee, gross receipts,

4.	Gross operating revenues	\$33,321 [3]	\$34,518 [7]	\$31,869 [11]
5.	Operating expenses	<u>29,646 [4]</u>	<u>29,646 [8]</u>	<u>29,646 [12]</u>
6.	Operating ratios (L5 / L4)	<u>88.97%</u>	<u>85.89%</u>	<u>93.02%</u>

- [1] Chiu Exhibit I, Schedule 3(b), Line 5, Column (c).
- [2] Chiu Exhibit I, Schedule 3(b), Line 29, Column (c).
- [3] Chiu Exhibit I, Schedule 3(b), Line 5 - Line 25 - Line 26 - Line 27 - Line 28, Column (c).
- [4] Chiu Exhibit I, Schedule 3(b), Line 29 - Line 25 - Line 26 - Line 27 - Line 28, Column (c).
- [5] Chiu Exhibit I, Schedule 3(b), Line 5, Column (e).
- [6] Chiu Exhibit I, Schedule 3(b), Line 29, Column (e).
- [7] Chiu Exhibit I, Schedule 3(b), Line 5 - Line 25 - Line 26 - Line 27 - Line 28, Column (e).
- [8] Chiu Exhibit I, Schedule 3(b), Line 29 - Line 25 - Line 26 - Line 27 - Line 28, Column (e).
- [9] Chiu Exhibit I, Schedule 3(b), Line 5, Column (g).
- [10] Chiu Exhibit I, Schedule 3(b), Line 29, Column (g).
- [11] Chiu Exhibit I, Schedule 3(b), Line 5 - Line 25 - Line 26 - Line 27 - Line 28, Column (g).
- [12] Chiu Exhibit I, Schedule 3(b), Line 29 - Line 25 - Line 26 - Line 27 - Line 28, Column (g).

I/A



ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
LINDA CULPEPPER
Interim Director

Notice of Deficiency

April 3, 2018

Water Resources, Inc.
Registered Agent: Dennis C. Abbott
5970 Fairview Road, Suite 710
Charlotte, NC 28210-3124
Certified Mail: 7016 1370 0000 2591 9168

RE: Rocky River Plantation S/D
PWSID: NC0113220
Cabarrus County

Dear Mr. Abbott:

This letter is provided to inform you that a sanitary survey of the referenced water system was conducted on March 29, 2018 in the presence of Mr. Greg Trombello. The purpose of the sanitary survey was to determine whether the water system facilities were in compliance with the requirements of the Division of Water Resources' *Rules Governing Public Water Systems*.

During the sanitary survey, the following deficiencies were noted:

1. The approval letter for the Rocky River Plantation water system, with serial number 89-7189, states the following: "The two (2) well pumps will be operated separately with an alternator." It was observed during the sanitary survey that Well 1 is manually operated and that Well 2 is not operational.

As a result, the water system has violated the requirements of North Carolina Administrative Code, Title 15A, Subchapter 18C, Rule .1304(a) [15A NCAC 18C .1304(a)], which states that water systems shall be operated and maintained in accordance with applicable approved engineering plans and specifications.

This deficiency can be resolved by operating Well 1 and Well 2 in accordance with the approved plans and specifications.

This deficiency must be corrected by May 3, 2018.

2. It was observed during the sanitary survey that the hypochlorite solution injection point is not in the location shown on the approved plans for the chemical feed system

improvements, with serial number 15-00341. The hypochlorite solution injection point was observed to be located on the Well 2 raw water line prior to the convergence of the Well 1 raw water line and the Well 2 raw water line.

As a result, the water system has violated the requirements of 15A NCAC 18C .1304(a), which states that deviations from the approved engineering plans and specifications or changes in site conditions affecting capacity, hydraulic conditions, operating units, the functioning of water treatment processes, the quality of water to be delivered, or any provisos stipulated in the Department's original and subsequent letters or approval must be approved by the Department before any construction or installation.

This deficiency can be resolved by installing the hypochlorite solution injection point in accordance with the approved plans and specifications.

This deficiency must be corrected by May 3, 2018.

3. It was observed during the sanitary survey that a faucet or spigot for sampling treated water prior to delivery to the first customer is not provided.

As a result, the water system has violated the requirements of 15A NCAC 18C .0402(e), which states that faucets or spigots shall be provided for sampling both raw water prior to treatment and treated water prior to delivery to the first customer.

This deficiency can be resolved by providing a faucet or spigot for sampling treated water prior to delivery to the first customer.

This deficiency must be corrected by May 3, 2018.

4. It was observed during the sanitary survey that the threaded hose bib at the Well 2 wellhead was not equipped with an anti-siphon device.

As a result, the water system has violated the requirements of 15A NCAC 18C .0402(e), which states that threaded hose bibs shall be equipped with anti-siphon devices.

This deficiency can be resolved by equipping the threaded hose bib at the Well 2 wellhead with an anti-siphon device.

This deficiency must be corrected by May 3, 2018.

5. It was observed during the sanitary survey that the well house provided for Well 1 is not secured with a lock and key.

As a result, the water system has violated the requirements of 15A NCAC 18C .0402(f), which states that a well house must be secured with lock and key.

This deficiency can be resolved by securing the well house provided for Well 1 with a lock and key.

This deficiency must be corrected by May 3, 2018.

6. It was observed during the sanitary survey that the totalizing meters for Well 1 and Well 2 are not functional.

As a result, the water system has violated the requirements of 15A NCAC 18C .0402(g)(6), which states that a totalizing meter shall be installed in the piping system from each well.

This deficiency can be resolved by repairing or replacing the totalizing meters for Well 1 and Well 2.

7. It was noted during a review of monthly operation reports that approximately three residual disinfection tests in the distribution system are performed per week. The water system is classified as a B Distribution system, which requires a minimum of five residual disinfection tests to be performed in the distribution system per week.

As a result, the water system has violated the requirements of 15A NCAC 18C .1302(a)(1)(A), which states that residual disinfectant concentrations shall be measured weekly at locations that represent maximum residence time of the water in the distribution system or at other locations with high water age. The table shows in this section requires a minimum of five residual disinfection tests to be performed in the distribution system per week for a water system classified as a B Distribution system.

This deficiency can be resolved by performing five residual disinfection tests in the distribution system per week. It should be noted that samples collected on the same day must be collected from different locations.

This deficiency must be corrected by May 3, 2018.

Furthermore, the following recommendations are made to improve the quality and/or safety of the water provided by the water system:

1. It was noted during a review of the monthly operation reports on file in the Mooresville Regional Office that the results from the iron and manganese field readings exceed the secondary maximum contaminant levels (SMCLs) for iron and manganese on some occasions. It is recommended that the filter be evaluated by a qualified professional to assess the operation and maintenance of the filter. The treatment system must be operated such that the iron and manganese concentrations in the treated water do not exceed their SMCLs.
2. It was observed during the sanitary survey that a Hach Iron and Manganese Color Disc Test Kit is being used to measure the iron and manganese concentrations that are reported on the monthly operation reports. It is recommended that the test kit be calibrated in accordance with the manufacturer's instructions, that no expired reagents are used, and


that the test kit is stored and maintained in accordance with the manufacturer's instructions.

3. It is unknown when the elevated storage tank was last inspected, or if the elevated storage tank has been inspected since its installation. It is requested that the elevated storage tank be regularly inspected by a qualified professional and that the vent be inspected on a regular basis to ensure that the screen is intact.
4. During the sanitary survey, holes were observed in the lower portion of the western wall of the building containing the sand filter. It is recommended that the wall be repaired or replaced.
5. It was noted during a review of the documents kept on file in the Mooresville Regional Office that a dual check valve assembly (DCVA) and a dual check detector assembly (DCDA) are present at a service connection serving a former school, which had been demolished at the time of the sanitary survey. If this service connection is placed back into service at a future date, it is recommended that all testable backflow prevention assemblies be tested on an annual basis.

During the sanitary survey, it was observed that Well 1, was placed into service after a period of inactivity. The Department is not aware of any monitoring being performed on Well 1 during the period of inactivity. Monitoring of Well 1 must be performed in accordance with 15A NCAC 18C.

If you have any questions or need any additional information, please feel free to contact me at (704) 235-2132.

Sincerely,



Meredith Guglielmi, EI
Assistant Regional Engineer
Public Water Supply Section
Division of Water Resources

CC: Jessica C. Godreau, P.E., Chief – Public Water Supply Section
~~Clinton O. Cook, P.E., Regional Engineer – Mooresville Regional Office.~~

I/A



ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
LINDA CULPEPPER
Interim Director

Notice of Deficiency

January 2, 2018

Water Resources, Inc.
Dennis Abbott
5970 Fairview Road, Suite 710
Charlotte, NC 28210-3124
Certified Mail: 7015 1520 0002 6984 7658

RE: Riverwalk Plantation
PWSID: NC0160379
Mecklenburg County

Dear Mr. Abbott:

This letter is provided to inform you that a sanitary survey of the referenced water system was conducted on December 6, 2017 in the presence of Mr. Greg Trombello. The purpose of the sanitary survey was to determine whether the water system facilities were in compliance with the requirements of the Division of Water Resources' *Rules Governing Public Water Systems*.

During the sanitary survey, the following deficiencies were noted:

1. Threaded hose bibs are not equipped with anti-siphon devices at the Well 1 raw water tap and at the Well 2 raw water tap.

As a result, the water system has violated the requirements of North Carolina Administrative Code, Title 15A, Subchapter 18C, Rule .0402(e) [15A NCAC 18C .0402(e)], which states that threaded hose bibs shall be equipped with anti-siphon devices.

This deficiency can be resolved by installing anti-siphon devices or by removing the threaded portion of the tap at the Well 1 raw water tap and at the Well 2 raw water tap.

This deficiency must be corrected by April 2, 2018.

2. The cover over the well house for Well 1 is not secured against unauthorized access, and a locking mechanism is not provided.

As a result, the water system has violated the requirements of 15A NCAC 18C .0402(f), which states that a water supply well shall be secured against unauthorized access and that a locking mechanism shall be provided.



This deficiency can be resolved by repairing the cover over the Well 2 well house to protect against unauthorized access and by providing a locking mechanism.

This deficiency must be corrected by April 2, 2018.

3. A properly sized vacuum relief valve is not provided for the hydropneumatic tank.

As a result, the water system has violated the requirements of 15A NCAC 18C .0405(c)(3), which states that pressure tanks shall have access manholes, bottom drains, pressure gauges, and properly sized pressure and vacuum relief valves.

This deficiency can be resolved by providing a properly sized vacuum relief valve for the hydropneumatic tank.

This deficiency must be corrected by April 2, 2018.

4. The Department of Labor inspection for the hydropneumatic tank is expired.

As a result, the water system has violated the requirements of 15A NCAC 18C .0405(c)(5), which states that hydropneumatic storage shall conform to the construction requirements for pressure vessels adopted by the North Carolina Department of Labor and codified in North Carolina Administrative Code, Title 13, Subchapter 13 [13 NCAC 13]. 13 NCAC 13 .0211(h) states that hydropneumatic storage tanks shall undergo an external inspection every four years.

This deficiency can be resolved by obtaining a hydropneumatic tank inspection certificate for the hydropneumatic tank from the Department of Labor. The inspector for Cabarrus County is Oscar Coley, and he can be reached at 704-261-6873.

This deficiency must be corrected by April 2, 2018.

Furthermore, the following recommendations are made to improve the quality and/or safety of the water provided by the water system:

1. It was noted during a review of monthly operation reports that the free chlorine residual in the water system is typically between 0.2 and 0.4 mg/L. Discussion with the Operator in Responsible Charge (ORC) revealed that he has attempted to increase the hypochlorite feed rate in an effort to raise the free chlorine residual in the distribution system, but he has been unsuccessful. The ORC believes that buildup may be causing a reduced flow of sodium hypochlorite that is injected into the water. Therefore, it is recommended that the drop pipe, tubing, and injection point associated with the hypochlorite treatment equipment be cleaned or replaced as necessary to ensure the proper flow of chemicals.

If the ORC is unable to increase the the sodium hypochlorite feed rate after the above-described corrective actions have been taken, it is recommended that further investigation into this issue be performed until a solution can be identified and implemented.

2. It was observed during the sanitary survey that the valve for the blow-off at Well 1 was leaking. It is recommended that the valve be repaired or replaced so that it is no longer leaking.
3. It was observed that the hydropneumatic tank and the ground storage tank are severely corroded. It is recommended that the hydropneumatic tank and the ground storage tank be either replaced or cleaned and recoated by a qualified professional.
4. It is recommended that trees and limbs surrounding both well houses, the hydropneumatic tank, and the ground storage tank be trimmed as necessary to ensure that no water system components would be damaged in the event of falling trees and limbs.
5. It was observed that the water treatment facility, where treatment equipment and chemicals are housed, does not have a way to drain water. 15A NCAC 18C .0404(a)(2) states that drainage shall be provided by floor drain, wall drain, or slope to door. It is recommended that drainage by floor drain, wall drain, or slope to door be provided if major construction is performed on the water treatment facility in the future.
6. It was noted during a review of historic monitoring data that total coliform sampling sites are not rotated. It is recommended that bacteria sampling sites be rotated on a monthly basis and that a bacteria sample siting plan be developed.

If you have any questions or need any additional information, please feel free to contact me at (704) 235-2132.

Sincerely,



Meredith Guglielmi, EI
Assistant Regional Engineer
Public Water Supply Section
Division of Water Resources

CC: Jessica C. Godreau, P.E., Chief – Public Water Supply Section
Clinton Cook, P.E., Regional Engineer – Mooresville Regional Office

I/A

Public Staff
Furr Exhibit 3 MG

ROY COOPER
Governor
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Secretary
LINDA CULPEPPER
Interim Director

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AUG 20 2018
NCDEQ
Public Water Supply



NORTH CAROLINA
Environmental Quality
August 15, 2018

RECEIVED/NC DENR/DWR
AUG 20 2018
WQROS
MOORESVILLE REGIONAL OFFICE

NC0113220_20180815_RAD_INC_MON_20183Q_SS2.pdf

WATER SYSTEM NUMBER: NC0113220; CABARRUS COUNTY
ROCKY RIVER PLANTATION S/D
WATER RESOURCES INC_113220
5970 FAIRVIEW RD SUITE 710
CHARLOTTE, NC 28210-3167

INCREASED MONITORING FOR RADIONUCLIDES: CHANGE TO QUARTERLY

The monitoring requirements for Radionuclides in drinking water are outlined in North Carolina's Rules Governing Public Water Systems Section, 15A NCAC 18C .1519 §141.26(a)(3)(v).

Your system's Radionuclides analytical results for Facility ID No./Sample Point ID: SS2 / E04 collected on May 9, 2018 indicate that the MCL for the following contaminant(s) was exceeded: Combined Radium. **Therefore, as specified in the Rule, your system must now monitor for Combined Radium at the referenced sample point on a quarterly basis. Your next sample must be collected during the quarterly compliance period beginning July 1, 2018.** Please note that all contaminants identified by the method of analysis for the required contaminant(s) must be electronically reported to the Public Water Supply Section by a North Carolina certified laboratory.

Based upon your subsequent quarterly results, if you believe that your system is eligible for a reduction in monitoring in accordance with the Rule, you must submit a written request to my attention for approval in order to reduce your monitoring frequency.

Please include your water system's name and number on all correspondence. Our website contains links to "Sampling Status" which allows systems to view their current monitoring schedules for each contaminant group and to "Drinking Water Watch" which allows systems to view their monitoring results and other system information. Copies of North Carolina's Rules Governing Public Water Systems can also be found on our website at www.ncwater.org.

If you have any questions or need assistance regarding this matter, please contact me at (919) 707-9091 or by email at veena.ramachandran@ncdenr.gov.

Sincerely,

Veena Ramachandran
Environmental Engineer
Compliance Services Branch
Public Water Supply Section

cc: MOORESVILLE REGIONAL OFFICE, Regional Engineer
METREYEON, DUSTY



I/A

Water Resources, Inc.
Docket No. W-1034, Sub 8
Service Revenue
Rocky River Plantation Subdivision

Public Staff
Furr Exhibit 4

End of Period Customers	114
Test Year Billings	1,368
Test Year Consumption	7,834,110 gals.

Service Revenue at Present Rates

Base Charge Revenue

$$1,368 \times \$ 9.28 = \$ 12,695$$

Consumption Charge Revenue

$$7,834 \times \$ 2.57 = \$ 20,134$$

$$\text{Total Revenue} \quad \$ \quad 32,829$$

Service Revenue at Proposed Rates

Base Charge Revenue

$$1,368 \times \$ 11.20 = \$ 15,322$$

Consumption Charge Revenue

$$7,834 \times \$ 3.10 = \$ 24,286$$

$$\text{Total Revenue} \quad \$ \quad 39,607$$

I/A

Water Resources, Inc.
Docket No. W-1034, Sub 8
Service Revenue
River Walk Subdivision

Public Staff
Furr Exhibit 5

End of Period Customers	32
Test Year Billings	384
Test Year Consumption	2,017,230 gals.

Service Revenue at Present Rates

Base Charge Revenue

$$384 \times \$ 37.67 = \$ 14,465$$

Consumption Charge Revenue

$$2,017 \times \$ 9.42 = \$ 19,002$$

$$\text{Total Revenue} \quad \$ 33,468$$

Service Revenue at Proposed Rates

Base Charge Revenue

$$384 \times \$ 40.68 = \$ 15,621$$

Consumption Charge Revenue

$$2,017 \times \$ 10.18 = \$ 20,535$$

$$\text{Total Revenue} \quad \$ 36,157$$

I/A

Water Resources, Inc.
Docket No. W-1034, Sub 8
Water Quality Testing Expenses
Rocky River Plantation Subdivision

Public Staff
Furr Exhibit 6

<u>Test</u>	<u>Annual Tests</u>	<u>Cost Per Sample</u>	<u>Annual Expense</u>
Coliform Bacteria	12.00	\$ 45.00	\$ 540
THM/HAA5	0.33	\$ 240.00	\$ 80
Lead/Copper	5.00	\$ 50.00	\$ 250
Inorganics	0.33	\$ 300.00	\$ 100
VOCs	0.33	\$ 195.00	\$ 65
SOCs	0.33	\$ 975.00	\$ 325
Nitrate	1.00	\$ 40.00	\$ 40
Radiologicals	0.17	\$ 455.00	\$ 76
Gross Alpha			
Combined Uranium			
Combined Radium*	0.33	\$ 455.00	\$ 152
Misc. Additional Tests			
Annual CCRs			\$ 195
Total Average Annual Expense			\$ 1,823

* Special test amortized over 3 years

I/A

Water Resources, Inc.
Docket No. W-1034, Sub 8
Water Quality Testing Expenses
River Walk Subdivision

Public Staff
Furr Exhibit 7

<u>Test</u>	<u>Annual Tests</u>	<u>Cost Per Sample</u>	<u>Annual Expense</u>
Coliform Bacteria	12.00	\$ 45.00	\$ 540
THM/HAA5	0.33	\$ 240.00	\$ 80
Lead/Copper	5.00	\$ 50.00	\$ 250
Inorganics	0.33	\$ 300.00	\$ 100
VOCs	0.33	\$ 195.00	\$ 65
SOCs	0.33	\$ 975.00	\$ 325
Nitrate	1.00	\$ 40.00	\$ 40
Radiologicals	0.17	\$ 455.00	\$ 76
Gross Alpha			
Combined Uranium			
Combined Radium			
Misc. Additional Tests			
Annual CCR			\$ 195
Total Average Annual Expense			\$ 1,671

Water Resources, Inc.
Docket No. W-1034, Sub 8
Rate Design - River Walk Subdivision

Public Staff
Furr Exhibit 8

Revenue Requirement	\$	32,696
Total EOP Metered Customers		32
Annual Metered Customer Billings		384
Total Annual Metered Usage		2,017,230 gallons

Monthly Metered Rates, Monthly Base Charge, Zero Usage

Base Charge (zero usage)

Recover approx: 44% of metered revenue requirement

$$\$ 32,696 \times 44\% = \$ 14,386.24$$

$$\$ 14,386 / 384 = \$ 37.46$$

Set Base Charge at **\$ 37.50**

Revenue From Base Charge

$$\$ 37.50 \times 384 = \$ 14,400$$

Usage Charge

Usage Revenue Requirement

$$\$ 32,696 - \$ 14,400 = \$ 18,296$$

Usage Charge per 1,000 gallons

$$\$ 18,296 / 2,017.23 = \$ 9.0699$$

Must round up, set usage charge at **\$ 9.07**