

RECEIVED

FEB 19 2021

THE STATE OF SOUTH CAROLINA

S.C. SUPREME COURT

In the Supreme Court

APPEAL FROM THE SOUTH CAROLINA PUBLIC SERVICE COMMISSION

**In Re: Application of Blue Granite Water Company
for Approval to Adjust Rate Schedules and Increase Rates Appellant.**

South Carolina Public Service Commission Docket No. 2019-290-WS

Appellate Case No. 2020-001283

**RECORD ON APPEAL
VOLUME III OF III**

Frank R. Ellerbe, III, Counsel
Samuel J. Wellborn, Counsel
ROBINSON GRAY STEPP & LAFFITTE, LLC
1310 Gadsden Street
Post Office Box 11449
Columbia, South Carolina 29211
Telephone: 803-929-1400
Attorneys for Appellant

Andrew M. Bateman, Counsel
Alexander W. Knowles, Counsel
Christopher M. Huber, Counsel
Steven W. Hamm, Counsel
South Carolina Office of Regulatory Staff
1401 Main Street, Suite 900
Columbia, SC 29201
Telephone: 803-737-0800
Attorneys for Respondent
South Carolina Office of Regulatory Staff

Carolyn Grube Lybarker, Counsel
Roger P. Hall, Counsel
Connor J. Parker, Counsel
P.O. Box 5757
Columbia, SC 29250
Attorney for Respondent
South Carolina Department of Consumer Affairs

Richard L. Whitt, Counsel
Whitt Law Firm, LLC
P.O. Box 362
Irmo, SC 29063
Attorney for Respondent
South Carolina Department of Consumer Affairs

Michael Kendree, County Attorney
York County, South Carolina
P.O. Box 299
York, SC 29745
Attorney for York County, South Carolina

James Knowlton, Pro Se
306 Brookside Drive
Fort Mill, SC 29715
Intervenor, Self-represented

Laura Puccia Valtorta, Counsel
Valtorta Law Office
903 Calhoun Street
Columbia, SC 29201
Attorney for Forty Love Point Homeowners'
Association

S. Jahue Moore, Counsel
Moore Taylor Law Firm, PA
P.O. Box 5719
West Columbia, SC 29171
Attorney for Town of Irmo

John J. Pringle, Jr., Counsel
Adams and Reese, LLP
1501 Main Street, 5th Floor
Columbia, SC 29201
Attorney for Building Industry Association of
South Carolina

Stefan Dover, Pro Se
206 Pelham Lane
Fort Mill, SC 29715
Intervenor, Self-Represented

INDEX

Index to Volumes of Record on Appeal
Volume I (R. pp. 1 – 444)
Volume II (R. pp. 445 - 848)
Volume III (R. pp 849 - 1243)

VOLUME I

Orders

<u>SC Public Service Commission Docket No. 76-352-C:</u> Order No. 77-33	1
<u>SC Public Service Commission Docket No. 2004-212-S:</u> Order No. 2005-42, February 2, 2005.....	27
<u>SC Public Service Commission Docket No. 2017-292-WS:</u> Order No. 2018-345, May 17, 2018.....	62
Order No. 2018-345(A), May 30, 2018	109
<u>SC Public Service Commission Docket No. 2018-319-E:</u> Order No. 2019-323, May 21, 2019.....	156
<u>SC Public Service Commission Docket No. 2019-290-WS:</u> Order No. 2019-746, October 30, 2019	227
Order No. 2019-799, November 25, 2019	228
Order No. 2019-825, December 4, 2019.....	229
Order No. 2019-826, December 4, 2019.....	230
Order No. 2019-827, December 4, 2019.....	231
Order No. 2019-829, December 4, 2019.....	232
Order No. 2019-830, December 4, 2019.....	233
Order No. 2019-831, December 4, 2019.....	234
Order No. 2019-849, December 10, 2019.....	235
Order No. 2020-19, January 8, 2020.....	236

VOLUME I, Orders (continued)

SC Public Service Commission Docket No. 2019-290-WS (cont'd):

Order No. 2020-20, January 8, 2020.....	237
Order No. 2020-21, January 8, 2020.....	238
Order No. 2020-22, January 8, 2020.....	239
Order No. 2020-260, March 25, 2020.....	240
Order No. 2020-306, April 9, 2020.....	242
Order No. 2020-549, August 18, 2020	391
Order No. 2020-641, September 23, 2020.....	393
Order No. 2020-758, November 6, 2020	411
Order of the SC Executive Department, Office of the Governor, Executive Order No. 2020-08, March 13, 2020.....	425

SC Public Service Commission Directives

Directive, March 25, 2020	429
Directive, May 28, 2020	434
Directive, July 15, 2020	437
Directive, August 31, 2020	439
Directive, September 16, 2020.....	441
Directive, December 9, 2020	443

VOLUME II

Pleadings

Application of Blue Granite Water Company, October 2, 2019.....	445
Proposed Order by Blue Granite Water Company, March 18, 2020	617

VOLUME II, Pleadings (continued):

Petition for Reconsideration and Clarification of Blue Granite Water Company, April 29, 2020	751
Petition for Clarification and Rehearing/Reconsideration by Office of Regulatory Staff, April 29, 2020	782
Letter, Motion for Approval of Bond, Attachment A of Blue Granite Water Company, June 8, 2020	792
Letter Request for Clarification of SC Department of Consumer Affairs, August 7, 2020	823
Executed Surety Bond issued by Liberty Mutual Insurance Company filed by Blue Granite Water Company, August 17, 2020	825
Conditional Petition for Approval of Accounting Order, and Request for Expedited Consideration of Blue Granite Water Company, August 24, 2020	830
Petition for Reconsideration of Order No. 2020-549 by Blue Granite Water Company, September 4, 2020	837
Petition for Reconsideration and Comments by Blue Granite Water Company, November 20, 2020	846

VOLUME III

Transcript of Proceedings, Hearing #20-11857

Volume 1 of 10, January 27, 2020 (Lexington Night Hearing) as follows:

Testimony of Public Witnesses:

Keith Olawsky	850
Nicholl Ransom	852
Mary P. Cothran	855

Transcript of Proceedings, Hearing #20-11857

Volume 2 of 10, January 30, 2020 (Irmo Night Hearing) as follows:

Testimony of Public Witnesses:

Georgia Coffey	859
Pat Steadman	860

VOLUME III, Transcript (continued):

Transcript of Proceedings, Hearing #20-11857

Volume 3 of 10, February 3, 2020 (Union Night Hearing) as follows:

Testimony of Public Witness Gene Riley	864

Transcript of Proceedings, Hearing #20-11857

Volume 4 of 10, February 13, 2020 (Greenville Night Hearing) as follows:

Testimony of Public Witness Bobbie Lyons	867
Examination by Commissioner Belser	868

Transcript of Proceedings, Hearing #20-11857

Volume 5 of 10, February 26, 2020 (Merits Hearing) as follows:

Panel Testimony of J. Bryce Mendenhall and Donald H. Denton

Denton Summary of Prefiled Testimony	872
Denton Prefiled Direct Testimony	874
Denton Prefiled Rebuttal Testimony	875
Mendenhall Prefiled Direct Testimony	879
Mendenhall Prefiled Rebuttal Testimony	880
Cross-Examination by Stefan Dover	888
Cross-Examination by Christopher M. Huber	890
Cross-Examination by Commissioner Belser	896
Re-direct Examination by Samuel J. Wellborn	898
Re-cross Examination by Christopher M. Huber	899

Panel Testimony of Dylan W. D'Ascendis and John J. Spanos

D'Ascendis Summary of Prefiled Direct Testimony	900
D'Ascendis Summary of Prefiled Rebuttal Testimony	902
D'Ascendis Prefiled Direct Testimony	903
D'Ascendis Prefiled Rebuttal Testimony	910
Cross-Examination by Michael Kendree	917

Transcript of Proceedings, Hearing #20-11857

Volume 6 of 10, February 27, 2020 (Merits Hearing) as follows:

Panel Testimony of Dylan W. D'Ascendis and John J. Spanos (continued)

Cross-Examination by Carri Grube Lybarker	919

VOLUME III, Transcript (continued):

Panel Testimony of Lafayette K. Morgan, Jr., Aaron L. Rothschild

Morgan Prefiled Direct Testimony	940
Rothschild Summary of Prefiled Direct Testimony	941
Rothschild Corrected Prefiled Direct Testimony	947
Rothschild Summary of Surrebuttal Testimony	1022
Rothschild Prefiled Surrebuttal Testimony	1023
Cross-Examination by Frank R. Ellerbe, III	1046
Examination by Commissioner Hamilton	1048
Examination by Commissioner Whitfield	1049

Testimony of Dante M. DeStefano

DeStefano Prefiled Direct Testimony	1050
DeStefano Prefiled Rebuttal Testimony	1054
Cross-Examination by S. Jahue Moore	1062

Transcript of Proceedings, Hearing #20-11857

Volume 7 of 10, February 27, 2020 (Columbia Night Hearing) as follows:

Testimony of Public Witnesses:

Kim Corrigan	1064
John D. Mallard	1066

Transcript of Proceedings, Hearing #20-11857

Volume 8 of 10, February 28, 2020 (Merits Hearing) as follows:

Testimony of Dante M. DeStefano (continued)

Examination by Commissioner Whitfield	1069

Testimony of David C. Parcell

Direct Examination by Andrew M. Bateman	1070
Prefiled Direct Testimony	1071
Prefiled Surrebuttal Testimony	1086
Cross-Examination by Frank R. Ellerbe, III	1087

Transcript of Proceedings, Hearing #20-11857

Volume 9 of 10, March 2, 2020 (Merits Hearing) as follows:

Panel Testimony of Charles E. Jackson, Anthony D. Briseno and Daniel F. Sullivan

Sullivan Prefiled Direct Testimony	1089

VOLUME III, Transcript (continued):

Transcript of Proceedings, Hearing #20-11857

Volume 9 of 10, March 2, 2020 (Merits Hearing) continues as follows:

Briseno Prefiled Direct Testimony	1092
Jackson Prefiled Direct Testimony	1094
Examination by Commissioner Ervin.....	1098
Examination by Commissioner Hamilton.....	1100

Panel Testimony of Anthony M. Sandonato, Kyle D. Maurer, Sr., Ph.D. and Brandon S. Bickley

Direct Examination by Christopher M. Huber.....	1101
Bickley Prefiled Direct Testimony	1103
Bickley Prefiled Surrebuttal Testimony.....	1104
Maurer Prefiled Direct Testimony	1106
Maurer Prefiled Revised Surrebuttal Testimony	1116
Sandonato Prefiled Direct Testimony	1124
Bickley Cross-Examination by Samuel J. Wellborn.....	1125
Maurer Cross-Examination by Samuel J. Wellborn	1130

Transcript of Proceedings, Hearing #20-11857

Volume 10 of 10, March 5, 2020 (York Night Hearing) as follows:

Testimony of Public Witnesses:

Kenneth Love.....	1134
Examination by Commissioner Ervin.....	1135
Examination by Vice Chair Belser	1138
Michelle Transou	1140
Dorothy Cunningham.....	1143
Steve Salata.....	1144
Johnnie Lynn Viets	1146
Trevor Higgins – Examination by Vice Chair Belser	1148
Julia Csoksay	1151
Celia Broome	1152
Cross-Examination by Samuel J. Wellborn.....	1157
Cross-Examination by Alexander Knowles.....	1158
Brian Luckadoo.....	1159

Exhibits

Exhibit 1	1161
Exhibit 6.....	1177
Exhibit 9.....	1194
Exhibit 10.....	1197

VOLUME III, Exhibits (continued):

Exhibit 16 (D'Ascendis Direct Ex No 1 Sch DWD-6) (with exhibit sticker)	1200
Exhibit 16 (D'Ascendis Direct Ex No 1 Sch DWD-6) (without exhibit sticker)	1204
Exhibit 24.....	1208
Exhibit 35.....	1210
Exhibit 39.....	1211
Exhibit 40.....	1218
Exhibit 43.....	1221

BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

[Lexington, South Carolina]

HEARING # 20-11857

JANUARY 27, 2020

6:00 P.M.

DOCKET NO. 2019-290-WS:

Blue Granite Water Company - Application for Approval to Adjust
Rate Schedules and Increase RatesTRANSCRIPT OF TESTIMONY
AND PROCEEDINGS

VOLUME 1 OF 10

HEARING BEFORE: Comer H. 'Randy' RANDALL, *Chairman*; Florence
P. BELSER, *Interim Vice Chairman*; and COMMISSIONERS John
E. 'Butch' HOWARD, Thomas J. 'Tom' ERVIN, Swain E.
WHITFIELD, and O'Neal HAMILTON

ADVISOR TO COMMISSION: B. Randall Dong, Esq.
Legal Advisory Staff

STAFF: Jocelyn Boyd, Chief Clerk/Executive Director; William O.
Richardson and John Powers, Technical Advisory Staff; Afton Ellison
and Rob Bockman, Clerk's Staff; and Jo Elizabeth M. Wheat, CVR-
CM/M-GNSC, Court Reporter

APPEARANCES:

**FRANK R. ELLERBE III, ESQUIRE, and SAMUEL J.
WELLBORN, ESQUIRE**, representing BLUE GRANITE WATER
COMPANY, APPLICANT

**CARRIE GRUBE LYBARKER, ESQUIRE, and BECKY
DOVER, ESQUIRE**, representing the SOUTH CAROLINA
DEPARTMENT OF CONSUMER AFFAIRS, INTERVENOR

**JEFFREY M. NELSON ESQUIRE, and CHRISTOPHER M.
HUBER, ESQUIRE**, representing the SOUTH CAROLINA OFFICE
OF REGULATORY STAFF

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

1 THEREUPON came,

2 K E I T H O L A W S K Y ,

3 who, having been first duly affirmed, testified as follows:

4 WITNESS: My name is Keith Olawsky. I'm the
5 HOA president from the Land's End community, down
6 the end of Old Chapin Road. We're home of the
7 famous Watergate plant that continuously dumps into
8 Lake Murray, which we find out about these dumps
9 months later. It's always a "Whoops, we meant to
10 do this, we meant to do that."

11 Not going to talk about numbers. I'm not a
12 real numbers guy. But I want to tell you about the
13 issues that we have in our community of 114
14 homesites. The constant smell of the water, the
15 noise of the plant. It's a constant flow of pumper
16 trucks. It stays broken down. They have to pump
17 the raw sewage to other locations to have it
18 processed. Happens all the time. The accidental
19 releases; we get no response. Customer service is
20 nonexistent. I have called and called and called.
21 My neighbor who moved in two days ago, he was on
22 the phone with them three hours today and could not
23 get his water cut on today. They never answer;
24 once they put you on hold, never came back.

25 Our meters. I have caught, personally, five

1 or six times, the guy that was reading the meters
2 asleep in his truck on our property. So then what
3 they did was they hired ClearWater Solutions, a man
4 named Chris Thomas and Robert Nichols, to take over
5 overseeing the plant and our community. I met with
6 them. They said it had been literally, minimum,
7 months and months and months since some of the
8 meters had been read. To this day, they are still
9 having to dig up and find meters that haven't been
10 read in years. They come out and have to dig them
11 up and find them behind our townhomes.

12 They're now come out – now they've come out,
13 they've found several meters that no longer work.
14 So their response to that was they dug it up,
15 realized it wasn't hooked up, they filled the
16 ground with sand, and then they put centipede sod
17 around it, in the middle of – our community just
18 put in \$70,000 of Bermuda sod this past summer, and
19 now they're putting patches of centipede grass in.
20 And I've asked them, "We need this, the proper
21 grass, put in." Nothing has happened.

22 Chris and Robert from ClearWater, they've told
23 us, they said the meters that are out there appear
24 to be the original meters when these places were
25 built back in the '70s. They said, at best,

1 WITNESS: Nicholl Ransom, from Maple Grove in
2 Lexington.

3 What can I say that you've not already heard?
4 I can tell you about my recent high-usage
5 experience. Departments don't know what other
6 departments are doing. I was told by Customer
7 Service that scheduling a leak test is the only way
8 to guarantee that I can speak with a technician
9 from Operations. To my surprise, one random day,
10 there was a technician wearing a blue shirt with
11 the logo that read "CWS" – I assumed that to be
12 Carolina Water Service, but learned it was
13 ClearWater Services – in my yard completing a water
14 test, meter test, without my awareness, even though
15 I was home the entire time. It was then that I
16 learned that the Operations Department does not
17 work for Blue Granite. They are a new third-party
18 provider. To quote the technician, he does not
19 have time to ring my bell or knock or leave a door
20 tag. He has a full day of leak-testing to do and
21 no time for customer interaction.

22 Where does that leave me? I needed to explain
23 my trouble-shooting steps, the high-usage bill
24 history, where my irrigation system controls were,
25 and such. A prior customer service representative

1 had alluded that the fact that my irrigation system
2 would be the culprit of this high usage.

3 As a result of this leak test, I've gone to
4 the following expenses and extremes to protect my
5 property and financial security: First of all,
6 I've purchased and installed the Flume water usage
7 meter. A customer service agent had said that my
8 two-month usage of over 100,000 gallons of water
9 was a result of doing more laundry and taking
10 longer showers.

11 [Laughter]

12 When I fiercely objected, she said there was
13 no way to monitor every drop of water. Wrong.
14 There actually is. The Flume device now proves
15 that I use, on average, 500 gallons per month. My
16 total usage as a Utilities, Inc., customer since I
17 bought my house, does not even come close to the
18 alleged high usage of 100,000 in two months. And
19 then the compounding late fees. If you are tagged
20 as having a high-usage bill, they actually hold
21 your bill for a second billing cycle, send
22 technicians to your property to check for an
23 obvious leak in your yard, and then send both bills
24 at once. In my case, that bill was nearly \$800.

25 When I called with my concerns, I learned the

1 technicians had been to my property six times,
2 without my knowledge, since they had tagged me as
3 this high bill usage. No note, no tag, no knock,
4 no doorbell, no phone call, no letter.

5 Second, I've purchased and installed water
6 spigot locks. No leak test will ever happen on my
7 property without my knowledge, and no customer
8 service agent can suggest that my neighbors are
9 stealing my water.

10 Third, I've purchased and installed exterior
11 cameras and property sensors so that I'm notified
12 when someone –

13 [3-minute signal]

14 – is on my property. Really quick. Since
15 they want to pass their expenses on to me during
16 this filing, who do I send my expenses to for what
17 I've done?

18 You've already heard lots of opinions to the
19 business practices of Blue Granite, Carolina Water,
20 Utilities, Inc. Even after all these protests and
21 complaints by customers across South Carolina, we
22 are still subject to their abuse. What's our
23 recourse? We can't select another utility. Please
24 help us. Water is life.

25 [Applause]

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

MR. ELLERBE: [Shaking head.]

CHAIRMAN RANDALL: ORS?

MR. NELSON: No. Thank you, sir.

CHAIRMAN RANDALL: Commissioners?

[No response]

Thank you, Mr. Tarza.

WITNESS: Thank you.

[Applause]

[WHEREUPON, the witness was excused.]

[Witness affirmed]

THEREUPON came,

M A R Y P . C O T H R A N ,

who, having been first duly affirmed, testified as follows:

WITNESS: My name is Mary Cothran. I live in the Willow Creek Estates subdivision, which is a new subdivision off of Mineral Springs Road, not too far from here.

We are a new neighborhood. We just finished our last house, and we have a Facebook group where the neighbors get to know one another, and we also share what we've learned about our community. And everyone who moves into our community experiences what I call the Willow Creek water sticker shock. They get that first bill and ask each other, "This can't be right. Something's wrong. This is what

1 we pay for water?" "'Fraid so."

2 The 100,000-gallon meter reading is not
3 uncommon in our neighborhood. Several of our
4 neighbors have experienced it. Several neighbors
5 have since begun measuring their own meters.

6 We're purchased water, no wells. And sewer is
7 with Lexington.

8 I've lived in Lexington County since 1997.
9 I've had water from the City of West Columbia, the
10 Town of Lexington, and now Blue Granite. So I've
11 had local comparative experiences. This is, by
12 far, the worst, and what makes it really egregious
13 is the fact that Blue Granite is perhaps the worst
14 polluter in Lexington County, if not the Midlands,
15 and perhaps one of the worst in the State of South
16 Carolina. Blue Granite is the reason we have a
17 Columbia water – a riverkeeper. That's why we have
18 to monitor our own water. And they are asking us
19 to pay more. They're asking us to pay a lot more
20 at this stage.

21 You know, not only that; Blue Granite is a
22 pass-through middleman who doesn't even know, when
23 I asked several times, where the water comes from.
24 As part of this rate request, they had a town hall.
25 I went to the town hall with my water bottle full

1 of dirt-tasting water and said, "Why does my water
2 taste like dirt? It's tasted this way since
3 August." The first engineer I spoke to said, "Oh,
4 well, that's the City of Columbia's fault. You
5 know, we - they said they drew the water off the
6 bottom of the lake too fast and it's got some
7 turbidity, got a little dirt mixed in there. It'll
8 settle down."

9 We - I said, "Well, gosh, you know, it's funny
10 that we've never had this before. You know, it
11 started in August and disappeared by Thanksgiving.
12 Are you sure it's not the algal bloom I read about
13 in the paper?" "Oh, no, it's the Town of
14 Lexington's fault. That's who we get our water
15 from." I was like, "Well, wait a minute, the other
16 engineer over there told me you got it from this
17 other entity." Again, they assured me, "We do
18 nothing to the water. We just pipe it to your
19 home. We don't put anything in, we don't take
20 anything out."

21 Here's the bottom line. I don't mind if the
22 prices increase, if the service is better or the
23 quality is better. We don't even get adequate. If
24 you read Blue Granite's literature that they hand
25 out at their town meetings, they -

BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA
[Irmo, South Carolina]

HEARING # 20-11857 JANUARY 30, 2020 6:00 P.M.

DOCKET NO. 2019-290-WS:

Blue Granite Water Company - Application for Approval to Adjust
Rate Schedules and Increase Rates

TRANSCRIPT OF TESTIMONY
AND PROCEEDINGS

VOLUME 2 OF 10

HEARING BEFORE: Comer H. 'Randy' RANDALL, *Chairman*; Florence
P. BELSER, *Interim Vice Chairman*; and COMMISSIONERS John
E. 'Butch' HOWARD, Thomas J. 'Tom' ERVIN, Swain E.
WHITFIELD, and O'Neal HAMILTON

ADVISOR TO COMMISSION: B. Randall Dong, Esq.
Legal Advisory Staff

STAFF: Jocelyn Boyd, Chief Clerk/Executive Director; Jerisha
Dukes, Esq., Legal Advisory Staff; William O. Richardson, John
Powers, Amanda Golebiowski, and Norman Scarborough, Technical
Advisory Staff; Patricia Stephens, Afton Ellison, and Rob Bockman,
Clerk's Staff; and Jo Elizabeth M. Wheat, CVR-CM/M-GNSC, Court
Reporter

APPEARANCES:

**FRANK R. ELLERBE III, ESQUIRE, and SAMUEL J.
WELLBORN, ESQUIRE**, representing BLUE GRANITE WATER
COMPANY, APPLICANT

LAURA R. 'BECKY' DOVER, ESQUIRE, representing
the SOUTH CAROLINA DEPARTMENT OF CONSUMER AFFAIRS,
INTERVENOR

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

101 EXECUTIVE CENTER DRIVE
COLUMBIA, SC 29210

WWW.PSC.SC.GOV

POST OFFICE BOX 11649
COLUMBIA, SC 29211

1 with the infrastructure or just simply not
2 polluting the waters and keeping the facilities
3 intact. And I just don't think that changing a
4 name improves anything. And I don't think we need
5 to reward these people with more money for previous
6 bad behavior. They are just bad actors, and I just
7 don't think they have it due to them.

8 [Applause]

9 Thank you for your time.

10 CHAIRMAN RANDALL: Thank you, Ms. Coffey.

11 Any questions? Mr. Bateman.

12 CROSS EXAMINATION

13 BY MR. BATEMAN:

14 Q Ms. Coffey, I have one quick question. You mentioned
15 you didn't think that changing a name improves anything.
16 Have you noticed better service since CWS changed its
17 name from Carolina Water Service to Blue Granite?

18 A Not a whit of difference.

19 CHAIRMAN RANDALL: Thank you.

20 Commissioners?

21 [No response]

22 Thank you, Ms. Coffey, appreciate you being
23 here.

24 [WHEREUPON, the witness was excused.]

25 MR. BOCKMAN: Next, we have Morris Bays, Sr.,

1 Also, last July, I'm sitting there at my computer
2 desk one morning and just happened to notice out of
3 the corner of my eye there's an orange shirt
4 walking in my backyard. I'm like, "What's he
5 doing?" He goes back there, pulls the cap off my
6 sewer. And I'm watching him. He sticks a long
7 pole down in it. Finally, I go out there and ask
8 him, "What are you – what are you doing?" He
9 said – I startled him. He said, "I'm sorry, sir.
10 I'm at the wrong address." He said, "Everything
11 will be fine in about 10 minutes." And I said,
12 "Well, everything was fine before you got here."

13 [Laughter]

14 Okay. Not end of story. I didn't really
15 think no more about it. About 8:30 that night, my
16 daughter took a shower upstairs. I'm at the
17 computer desk again. I hear gurgling. I'm like,
18 "What is that?" I go in, both of my downstairs
19 toilets have overflowed – toilet paper, everything
20 come back in my house.

21 Of course, I called Blue Granite. Eight-
22 thirty at night, guess what. Answering service.
23 So I said, "Okay." I said, "This might be a good
24 thing. I've had time to cool off a little bit to
25 call them in the morning," which I did. I asked

1 the lady who answered the phone, I said, "Is there
2 any particular reason y'all plugged my sewer?" And
3 I gave her my account number and all that, and
4 she -- a long hesitation. "Uh, no, sir. Why?" I
5 said, "Because my downstairs is flooded, and it's
6 not water," plain water. She put me on someone
7 else, and she agreed the same thing. Then they put
8 me on -- I don't know who. Third was a gentleman
9 that time. He said, "Well, we'll get somebody on
10 it right now." I said, "Well, it's pouring down
11 rain outside." I said, "Is that going to affect
12 you coming and unplugging my sewer?" "No." I
13 said, "Okay."

14 Well, the guy came out. He unplugged it, and
15 still swore up and down he hadn't plugged it. And
16 I said, "You want me to show you what you didn't
17 plug?"

18 Yes, after four and a half months they have
19 repaired my house, and it's up to par. I'm
20 satisfied. I had mold problems, I had smell
21 problems. But my point is the company is really
22 not competent. They've had many spills, polluting
23 our lakes and rivers. I don't know. It's up to
24 y'all. And we do appreciate y'all being here.

25 CHAIRMAN RANDALL: Thank you, Mr. Steadman.

Parties, questions?

[No response]

Commissioners?

EXAMINATION

BY COMMISSIONER BELSER:

Q Mr. Steadman, when did this incident happen?

A Last July.

Q July of 2019.

A Yes, sir. Yes, sir. And it was Blue Granite at that time.

Q And they –

A It took about four and a half months to get everything –

Q Did you have an elder valve that they screw down to plug your –

A I don't know what – he – the guy that was out there swore up and down he hadn't even plugged it. I said, "Do you want me to show you?" And I brought him in the house.

Q Okay.

A And he took pictures. And, you know, my carpet – it was ruined, obviously. I mean, the molding, the floor molding, all that had to be replaced. Cabinets had to be replaced.

Q All right. I appreciate your testimony tonight. Thank you.

BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA
[Union, South Carolina]

HEARING # 20-11857

FEBRUARY 3, 2020

6:00 P.M.

DOCKET NO. 2019-290-WS:

Blue Granite Water Company - Application for Approval to Adjust
 Rate Schedules and Increase Rates

TRANSCRIPT OF TESTIMONY
 AND PROCEEDINGS

VOLUME 3 OF 10

HEARING BEFORE: Comer H. 'Randy' RANDALL, *Chairman*; Florence
 P. BELSER, *Interim Vice Chairman*; and COMMISSIONERS John
 E. 'Butch' HOWARD, Thomas J. 'Tom' ERVIN, Swain E.
 WHITFIELD, and O'Neal HAMILTON

ADVISOR TO COMMISSION: Jo Anne Wessinger Hill, Esq.
 Legal Advisory Staff

STAFF: William O. Richardson and John Powers, Technical Advisory
 Staff; Patricia Stephens and Afton Ellison, Clerk's Staff; Rob
 Bockman, Public Information Officer; and Jo Elizabeth M. Wheat,
 CVR-CM/M-GNSC, Court Reporter

APPEARANCES:

SAMUEL J. WELLBORN, ESQUIRE, representing BLUE
 GRANITE WATER COMPANY, APPLICANT

**LAURA R. 'BECKY' DOVER, ESQUIRE, and ROBERT
 HALL, ESQUIRE**, representing the SOUTH CAROLINA
 DEPARTMENT OF CONSUMER AFFAIRS, INTERVENOR

ALEX KNOWLES, ESQUIRE, representing the SOUTH
 CAROLINA OFFICE OF REGULATORY STAFF

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

101 EXECUTIVE CENTER DRIVE
 COLUMBIA, SC 29210

POST OFFICE BOX 11649
 COLUMBIA, SC 29211

WWW.PSC.SC.GOV

1 time sitting in his truck, I tell you that. I used
2 to ride a four-wheeler and I would go down where
3 their little facility is, where they actually
4 process the waste. Sometimes there's somebody's
5 there, but a lot of the time there's nobody down
6 there. And I haven't seen anybody doing anything
7 other than possibly maintaining the system. I
8 haven't seen any kind of major work on the system,
9 any attempt to improve the system, or anything
10 along those lines.

11 I have a cleanout plug in my yard - I guess
12 that's what they call it. And once or twice a
13 year, every year, the line, the main line gets
14 stopped up and it backs up, and it blows the top
15 off that cleanout plug in my front yard. And guess
16 what's all over my yard. You get the idea? That's
17 real nice, isn't it?

18 Now, I call them. They don't have anybody
19 that works for them, apparently, that can do
20 anything about this. They have to call Drains,
21 Incorporated, or somebody like that, out of either
22 Spartanburg or Greenville. And in a few hours,
23 hopefully, they'll be there to do something about
24 it.

25 But this happens regularly. They tell me the

1 roots get in the main line out there that runs down
2 under the middle of our street. I live on Pineland
3 Avenue. And they'll come and it takes them usually
4 several hours to get the clog fixed. If -
5 sometimes the top is on - I know - by the way, I
6 usually know there's a problem, because my bathtub
7 and my commode start bubbling. I was in the shower
8 one day and I heard a bubbling sound; it was my
9 commode. It was bubbling in my commode. I said,
10 "Oh, gosh, I'd better go out and check the plug."
11 And sure enough, I go out in the yard, and there's
12 waste all over my yard, sewage waste all over my
13 yard.

14 I think that's just ridiculous. This
15 situation here has existed for years. They've done
16 nothing to improve it. They hire somebody and send
17 them out there to clear the clog, and that's fine
18 until the next one occurs.

19 [3-minute signal]

20 There's been no improvements in the system,
21 folks. I don't know what they're telling you or
22 what they're claiming, but there's been no
23 improvements that we can see in the system.

24 Now, I'm 75 years old. My wife is, too. I'll
25 be 75 shortly and she's already 75. There's only

BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA
[Greenville, South Carolina]

HEARING # 20-11857 FEBRUARY 13, 2020 6:00 P.M.

DOCKET NO. 2019-290-WS:

Blue Granite Water Company - Application for Approval to Adjust
 Rate Schedules and Increase Rates

TRANSCRIPT OF TESTIMONY
 AND PROCEEDINGS

VOLUME 4 OF 10

HEARING BEFORE: Comer H. 'Randy' RANDALL, *Chairman*; Florence
 P. BELSER, *Interim Vice Chairman*; and COMMISSIONERS John
 E. 'Butch' HOWARD, Thomas J. 'Tom' ERVIN, Swain E.
 WHITFIELD, and O'Neal HAMILTON

ADVISOR TO COMMISSION: Jo Anne Wessinger Hill, Esq.
 Legal Advisory Staff

STAFF: William O. Richardson and Amanda Golebiowski, Technical
 Advisory Staff; Patricia Stephens and Afton Ellison, Clerk's Staff;
 Rob Bockman, Public Information Officer; and Jo Elizabeth M. Wheat,
 CVR-CM/M-GNSC, Court Reporter

APPEARANCES:

SAMUEL J. WELLBORN, ESQUIRE, representing BLUE
 GRANITE WATER COMPANY, APPLICANT

**LAURA R. 'BECKY' DOVER, ESQUIRE, and ROBERT
 HALL, ESQUIRE**, representing the SOUTH CAROLINA
 DEPARTMENT OF CONSUMER AFFAIRS, INTERVENOR

**CHRISTOPHER M. HUBER, ESQUIRE, and STEVE HAMM,
 ESQUIRE**, representing the SOUTH CAROLINA OFFICE OF
 REGULATORY STAFF

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

1 before. We often have issues with the sewage.
2 Just last month, the sewage came into our home. So
3 my husband had to run down to the waste station to
4 get someone to come up there right quick, because
5 it's not that far from where we live, and the guy
6 came up, and he said, "Well, it's not an issue on
7 your side; it's an issue on our side, so we're
8 going to have to call Roto-Rooter to pump it out."

9 And, okay, so they do that, but they don't
10 come back and say, "Okay, we're sorry," or, "What
11 can we do to fix this problem that, you know, this
12 water is coming in your home where you live?" So I
13 have an issue with that, and I would just like to
14 know, how do they fix it? I mean, you still want
15 more money. And you're not doing anything to
16 correct the problems that exist now. So, I don't
17 see where there's a need for a raise until you can
18 really take care of what you have. I mean, just
19 like the young lady that just spoke, it's only two
20 people in our house. Two people. But we have to
21 pay a rate – and I know we don't use it – that
22 everybody else – like she said, it could be five,
23 six, seven people in one house. Everybody's paying
24 the same thing. And it would be much better if it
25 was monitored, where the amount that you use is the

1 **A** I guess. We – it fluctuates, so I'm sure. We're not
2 being charged a flat rate for the water.

3 **Q** And you said the sewer – when is the last time you had
4 this sewer-backup issue?

5 **A** Just last month.

6 **Q** January?

7 **A** January, yeah.

8 **Q** And prior to that, do you recall when it happened
9 before?

10 **A** No, I don't. To be – I just want to be honest about it.
11 I don't remember when, but I do know that this is not
12 the first time that we've had it. We did have some
13 extensive damage one time, where they had to go in and –
14 at that time, we had carpet and all that stuff, and they
15 had to go in and clean and all that stuff, but that's
16 been some years ago.

17 **Q** When you say "they," who are you talking about?

18 **A** The – we had someone to come out and have that done.

19 **Q** Y'all had it, or the company?

20 **A** The company reimbursed us for what we had done.

21 **Q** Okay. And you said your husband went down and got
22 somebody to come?

23 **A** Yeah, it's a – it's some type –

24 **Q** Like a treatment plan?

25 **A** – some kind of station that's down – that's not very far

1 from the house. It's less than a mile.

2 Q That Blue Granite owns.

3 A Well, it used to be United Utilities, so I guess it's
4 Blue Granite?

5 Q United Utilities was like a parent company, and then CWS
6 was like under it, a subsidiary. Now, they've changed
7 their name to Blue Granite, so -

8 A Yeah, but it's -

9 Q But Utilities, Inc., used to - anyway, I know what
10 you're talking about. But it was somebody with Blue
11 Granite?

12 A That came up -

13 Q That came up there?

14 A - to see what the issue was.

15 Q Okay. And that's the man that said it's not your issue;
16 it's -

17 A Right.

18 Q - the company's issue?

19 A Right. He said it wasn't on our side, it was where the
20 sewage - you know, the little thing there where the
21 sewage comes in and goes out? It was on the opposite -
22 it was on the road aside; it wasn't on our - on the -
23 you know, in the yard side of the house.

24 Q And were you there when Roto-Rooter or somebody came?

25 A I wasn't, because I had to go to church.

1 Q Yes, ma'am.

2 A But my husband, he was there, and he's not here tonight.

3 Q That's fine.

4 A So...

5 Q But after you got home a while later, it had cleared up
6 or you were able to -

7 A Yes, ma'am. After they pumped, it had cleared up.

8 Q And did they come into your house and help with the
9 cleanup on that occasion?

10 A No, ma'am. No, ma'am. They just do what they do, and
11 they're gone.

12 Q Thank you very much for your testimony tonight.

13 A Thank you.

14 CHAIRMAN RANDALL: Thank you, ma'am.

15 Any other questions, Commissioners?

16 [No response]

17 Thank you, Ms. Lyons. Thank you, ma'am.

18 WITNESS: Thank you.

19 [WHEREUPON, the witness was excused.]

20 MR. BOCKMAN: Next we have Virginia Gray?

21 Virginia Gray, followed by Andy Lawrence.

22 [Witness affirmed]

23 THEREUPON came,

24 V I R G I N I A G R A Y ,

25 who, having been first duly affirmed, testified as follows:

Before the Public Service Commission of South Carolina
Columbia, South Carolina

Hearing # 20-11857 February 26, 2020 10:09 a.m.

Docket Number 2019-290-WS: Blue Granite Water Company
Application for Approval to Adjust Rate Schedules
and Increase Rates

TRANSCRIPT OF TESTIMONY
AND PROCEEDINGS

VOLUME 5 of 10
[MERITS HEARING]

HEARING BEFORE: Chairman Comer H. "Randy" Randall;
Interim Vice Chairman Florence P. Belser;
Commissioner G. O'Neal Hamilton; Commissioner John
E. "Butch" Howard; Commissioner Swain E. Whitfield;
and Commissioner Thomas J. "Tom" Ervin

ADVISOR TO COMMISSION: B. Randall Dong, Esq.
Legal Advisory Staff

STAFF: Jocelyn Boyd, Esq., Chief Clerk/Executive
Director; Josh Minges, Esq., F. David Butler, Esq.,
Jo Anne Wessinger Hill, Esq., Legal Advisory Staff;
William O. Richardson, Technical Advisory Staff; Melissa
Purvis, Livestream Technician; Randy Erskine,
Information Technology Staff; Jo Elizabeth M. Wheat,
CVR-CM/M-GNSC

COURT REPORTER: Kathleen R. Tackett, CVR-M

1 Since the company's last rate case, Blue
2 Granite has invested approximately \$23 million in
3 its water and wastewater systems in order to better
4 serve its customers. These investments were
5 necessary to: (1) end the legal discharge of fully
6 treated wastewater from the Friarsgate Wastewater
7 Treatment Facility into the Saluda River; (2)
8 improve the water quality for customers receiving
9 water from Stonegate's well water system; (3)
10 ensure the sustainable provision of water to
11 customers previously served by the failing Shandon
12 wells; (4) support the growing Lake Wylie River
13 Hills community through the addition of a secondary
14 water connection; and (5) maintain and improve a
15 number of wastewater collection systems across the
16 company's footprint.

17 In addition, this rate increase is necessary
18 because the company has been subject to increases
19 of approximately \$4.7 million from third parties
20 from which Blue Granite purchases water and
21 wastewater treatment services. These cost
22 increases are not controlled by Blue Granite, make
23 up a significant portion of the company's annual
24 O&M expense, and are necessary to the provision of
25 the service for which Blue -- for -- for Blue

1 which was a reasonable business decision made with
2 the long-term interests of customers in mind. This
3 decision included an evaluation of the strength of
4 the Greenville labor market, which was -- which has
5 a relatively large workforce and expected strong
6 population growth. We believe these demographics
7 will help us as we face the need to add new
8 employees, and the move has, in fact, already
9 yielded the intended benefits of attracting new
10 talent.

11 The company would necessarily incur upfit
12 costs whether it relocated within the Columbia,
13 West Columbia, Greenville, or other location. The
14 relevant question is whether the associated office
15 upfits are reasonable. Virtually all the costs at
16 issue were necessary to making the office space
17 ready for work. These costs, included putting up
18 drywall, installing electrical and
19 telecommunications lines, painting, purchasing
20 desks, all the things necessary to efficiently work
21 in an office space. A functional headquarters
22 office space is necessary for our employees to
23 provide utility service, and the associated costs
24 should be reflected in rates. As I discuss in my
25 testimony, third-party benchmarking information

1 Under present rates, Blue Granite is not able to meet its operating costs and
2 earn a reasonable return on its investments in the Company's systems. During the
3 Test Year, Blue Granite experienced an overall rate of return per its books for its
4 combined water and wastewater operations of only 0.10% (-3.0% on an adjusted
5 basis). The Company's pro forma Test Year overall returns are -4.19% for water
6 operations and -2.09% for wastewater operations. These rates of return are well
7 below Blue Granite's currently-authorized overall rate of return on rate base of
8 8.62%, which is based on an authorized rate of return on common equity of 10.5%,
9 established by the Commission in its Order No. 2018-802.

10 **Q. WHAT IS THE RATE INCREASE REQUESTED BY BLUE GRANITE IN**
11 **THIS PROCEEDING?**

12 A. The Company proposes an overall increase in revenue requirements of
13 \$11,731,803, an increase of 49.18% over pro-forma present rate revenues of
14 \$23,856,072. Of the overall increase, \$4,744,305, or over 40%, is related to
15 increases in third-party provider costs for purchased water and sewer treatment.
16 The overall increase represents a 44.42% increase in water revenue, and a 54.45%
17 increase in wastewater revenues. Approximately 22.31% of the water increase and
18 56.96% of the sewer increase are driven by third-party provider costs for purchased
19 water and sewer treatment.

20 **Q. IF APPROVED, WHAT WOULD BE THE IMPACT OF THE COMPANY'S**
21 **REQUESTED INCREASE TO THE TYPICAL WATER AND**

1 **I. ADMINISTRATIVE OFFICE UPFIT**

2 **Q. ORS WITNESS MAURER PROPOSES TO DISALLOW COSTS REQUIRED TO**
3 **UPFIT THE COMPANY'S OFFICE BECAUSE THE DECISION TO RELOCATE**
4 **TO GREENVILLE WAS "UNREASONABLE." DO YOU AGREE?**

5 A. No, I disagree for a number of reasons. Obviously, the Company requires a headquarters
6 office, and so long as the costs of its office are reasonable, they should be reflected in rates.
7 Our previous office was located in an industrial park with no other office buildings and no
8 amenities, like restaurants, nearby. It was simply not a viable location for attracting and
9 retaining talented employees. Accordingly, the decision was made to relocate our
10 headquarters office – consistent with our long-term strategic plan to improve performance
11 and service to customers, and consistent with our recognition that the attraction and
12 retention of talented employees is a key to fulfilling that strategy. Notably, the Company
13 would necessarily incur upfit costs whether it relocated within Columbia/West Columbia,
14 Greenville, or somewhere else. The relevant question for regulators is whether those upfit
15 costs are reasonable. The decision to relocate our headquarters office to Greenville was a
16 reasonable business decision, made with the long-term interests of customers in mind.

17 **Q. PLEASE DESCRIBE THE UPFIT COSTS WITH WHICH THE ORS TAKES**
18 **ISSUE.**

19 A. Virtually all of the costs were necessary to making the office space ready for work. These
20 costs included putting up drywall, installing electrical and telecommunications lines,
21 painting, purchasing desks, all the things necessary to efficiently work in an office space.
22 All of this cost information was provided to ORS pursuant to its discovery requests. The
23 offices are up to date and functional, but they are not luxurious or gold-plated. A functional

1 headquarters office space is necessary for our employees to provide utility service, and the
2 associated costs should be reflected in rates.

3 **Q. HOW DO YOU KNOW THAT THE UPFIT COSTS AT ISSUE ARE**
4 **REASONABLE?**

5 A. Benchmarking information supports this conclusion. Real estate firm JLL published a cost
6 benchmarking guide in 2019 using data from more than 3,600 of its managed projects in
7 59 markets across North America.¹ The per-square-foot range of prices for a medium-spec
8 upfit is between \$147.42 per square foot in Fort Worth, Texas to \$212.60 per square foot
9 in New York City. For reference, the per-square-foot price in Charlotte, North Carolina is
10 \$150.84; no South Carolina cities are listed in the report. The Greenville office is 4,287
11 square feet. Applying that figure to the cheapest domestic city in the JLL report yields a
12 total upfit cost of \$631,989.54. The comparable Charlotte figure is \$646,651.08. These
13 figures are substantially higher than the \$495,206 spent on the Greenville office upfit.

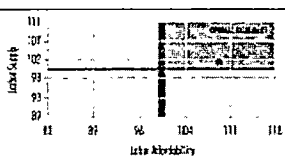
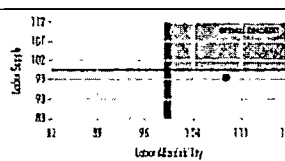
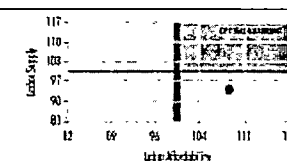
14 I would also note that size of our new office is reasonable. We housed 7 employees
15 in our previous 4,050 square foot office. Now we are housing 10 employees in a 4,287
16 square foot office, while also providing communal areas which allow those employees to
17 collaborate and which accommodate employees visiting from other state-wide or regional
18 locations.

19 **Q. WHY WAS GREENVILLE CHOSEN AS THE NEW HEADQUARTERS**
20 **LOCATION?**

¹ JLL, Fit Out Guide: Office Cost Benchmarking (2019), *available at* <https://www.us.jll.com/content/dam/jll-com/documents/pdf/research/americas/us/am-research-2019-us-fit-out-guide.pdf>.

A. The decision to relocate our headquarters to Greenville was a strategic decision, consistent with our long-term plans for growth and to better serve customers. Once the decision to relocate was made, the Company looked at the relative strength of its ability to attract talent in the Greenville and Columbia/West Columbia markets. The Company considered its brand impact in each market and used CBRE data to compare labor statistics. Attracting talent in the Columbia market has been extremely difficult due to the legacy brand issues in that market. This experience is further discussed in Company Witness Mendenhall's direct testimony as it relates to the Company's decision to outsource its Midlands operations to Clearwater Solutions.

While I agree with ORS that the CBRE Total Index scores are not conclusively determinative as to which city is best suited for the Company, the attributes of Greenville versus Columbia/West Columbia better match our long-term goals of attracting and retaining talented employees and growth throughout the state. As shown below, the labor force, projected population growth, and the balance between labor supply and labor affordability statistics from the CBRE reports support our decision to relocate to Greenville:

	Greenville	Columbia	West Columbia
Labor Force	355,749	263,781	196,189
Projected Population Growth	7.0%	5.1%	5.1%
Labor Supply v. Labor Affordability			

1 **Q. HOW WILL THE RELOCATION TO GREENVILLE HELP THE COMPANY**
2 **ACHIEVE ITS LONG-TERM STRATEGIC GOAL OF IMPROVING SERVICE**
3 **TO CUSTOMERS?**

4 A. The Company and the industry as a whole are facing aging workforce issues, and the
5 eligible workforce is shrinking, so ensuring that the right professionals are being attracted
6 to the Company and retained by the Company is fundamental to the Company's ability to
7 continue providing quality and cost-effective service. As shown above, the statistics
8 indicate that Greenville has a larger workforce and a larger expected population growth
9 than Columbia and West Columbia. We believe these demographics will help us as we face
10 the need to add new employees.

11 Moreover, in addition to being a very livable city that attracts young professionals,
12 the Greenville office, which is located in the historic Family Court building, is within
13 walking distance of our outside engineer company (Goodwyn Mills Cawood, "GMC") and
14 our peer utilities, Pacolet Milliken and Duke Energy. I would point out that, since
15 relocating our headquarters to Greenville, we have been able to successfully attract several
16 strategic new hires who have provided value to customers.

17 **Q. OURS WITNESS MAURER STATES THAT FEWER OF BLUE GRANITE'S**
18 **CUSTOMERS LIVE IN GREENVILLE COUNTY THAN IN OTHER COUNTIES**
19 **IN THE STATE. IS THIS AN IMPORTANT FACTOR WITH RESPECT TO THE**
20 **LOCATION OF THE COMPANY'S HEADQUARTERS?**

21 A. No. As a practical matter, customers rarely if ever visit our headquarters office, and
22 customer contacts are better addressed through our customer service center. This reality
23 also lessens the value of moving the office to an alternate option such as Rock Hill. What

1 procedures and requirements. I also work with developers and builders regarding new and
2 existing development and work to ensure that individual customer concerns regarding their
3 water and sewer service are handled properly and are satisfactorily resolved. As needed, I
4 communicate directly with individual customers and home owner associations to help
5 resolve service-related issues.

6 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

7 **A.** The purpose of my testimony is to discuss certain elements of BGW's application filed in
8 this docket and to discuss the Company's operations. Specifically, I will: (1) provide an
9 overview of BGW's water and sewer systems and service areas; (2) explain the principal
10 drivers of the present rate increase request, including major recent capital investment; (3)
11 discuss BGW's decommissioning of certain plant assets; (4) explain the Midlands contract
12 with ClearWater Solutions; (5) discuss the Company's proposal to amend its tariff
13 language and fees related to Solids Interceptor tanks; and (6) share BGW's big picture
14 efforts to address inflow and infiltration ("I&I"), water loss, treatment issues, and
15 technological upgrades to benefit customers.

16 **Q. PLEASE DESCRIBE BGW'S WATER AND WASTEWATER OPERATIONS IN**
17 **SOUTH CAROLINA.**

18 **A.** BGW is a wholly-owned subsidiary of CRU. BGW has approximately 28,300 customers
19 in 16 counties: Lexington, Richland, Sumter, Aiken, Saluda, Orangeburg, Beaufort,
20 Georgetown, Abbeville, Union, Anderson, York, Cherokee, Greenville, Greenwood, and
21 Williamsburg. As a result of the merger with Southland Utilities, Inc., Utilities Services of
22 South Carolina, Inc., and United Utility Companies, Inc. in 2015, the Company operates

A. No. First, to support its position, ORS relies upon a 4-page report from 1996 issued by the American Water Works Association (“AWWA”) Leak Detection and Water Accountability Committee. That report is outdated and its positions have been conclusively rejected by the AWWA itself in various capacities in subsequent years. More credible authorities on non-revenue water disallowances are (1) a November 2019 report issued by the AWWA Water Loss Control Committee, (2) a January 2020 report issued by the AWWA Water Loss Control Committee, and (3) the current edition of the AWWA’s Manual 36 on Water Audits and Loss Control Programs, issued in 2016.

The AWWA Water Loss Control Committee now rejects the use of a universal threshold for disallowing recovery of non-revenue water expenses:

AWWA recommended against setting loss reduction goals around a specific target such as “less than 10%”, recognizing that loss reduction targets are best tailored as system-specific goals for each water utility rather than a “one size fits all” approach.

AWWA recommends that the industry stop using percentage indicators . . . [T]here is still confusion as evidenced by:

- Inquiries received by AWWA from the regulatory community and other stakeholders seeking the “acceptable” water loss percentage level.
- Publications on water loss that refer to the “AWWA Standard of ____%” - the “standard” listed as anything from 5% to 20%. These misrepresentations, often derived anecdotally, come from technology and service providers, regulatory agencies, environmental groups, and water utilities. Since 2003, AWWA has recommended that it is best for utilities to set system-specific loss targets, and not use a prescribed one-size-fits-all number.

Additionally, percentage indicators like VPPI [Volumetric Percentage Performance Indicator] are not technically rigorous because they can be significantly influenced by parameters unrelated to NRW.

1 **AWWA recommends that water utilities, regulatory agencies and other**
2 **industry stakeholders discontinue use of a VPPI or “unaccounted-for”**
3 **water percentage indicator.¹**
4

5 In the January 2020 issue of Journal AWWA, the AWWA Water Loss Control Committee
6 issued a report titled “Key Performance Indicators for Nonrevenue Water—AWWA’s
7 2020 Position,” which I have attached hereto as Mendenhall Rebuttal Exhibit No. 1. The
8 report concludes as follows:

9 The traditional use of a single NRW percentage loss indicator, or
10 “unaccounted-for” water percentage—which is imprecise—continues to
11 bring more confusion than coherence to water loss assessments. This
12 method arguably has never been successful in motivating sustained,
13 measurable loss reductions.²
14

15 As suggested by the AWWA, ORS’s proposed 10% threshold is arbitrary, has no rational
16 basis, and should be rejected by the Commission. Instead of using arbitrary percentage
17 loss indicators, the AWWA’s Water Loss Manual states the following:

18 Thresholds for compliance should be based on well-founded rationales that
19 yield actionable information and recognize benefit-cost analysis to evaluate
20 alternative activities for achieving compliance, such as those described in
21 this manual. Such rationales are preferred over arbitrary, less meaningful
22 parameters like universal or percentage-based triggers. The method of
23 calculation for the applicable parameters should be clearly stated.³
24

25 The Company is, in fact, implementing AWWA-recommended measures against non-
26 revenue water, including reviewing existing data, validating water balance data and
27 recommendations for data validation, preparing an AWWA water balance, making

¹ *Key Performance Indicators for Non-Revenue Water*, AWWA Water Loss Control Committee Report (Nov. 2019), available at <https://www.awwa.org/Portals/0/AWWA/ETS/Resources/WLCKPIReport%202019.pdf?ver=2019-11-20-094638-933> (emphasis original).

² *Key Performance Indicators for Nonrevenue Water—AWWA’s 2020 Position*, AWWA Water Loss Control Committee Report (Jan. 2020).

³ AWWA Manual 36 at 15 (4th Ed. 2016).

improvements for water loss control, and implementing field leak detection. Additionally, the Company regularly reviews vacancy and zero consumption reports to aid in this endeavor. In other words, the Company is taking proactive steps to reduce non-revenue water consistent with AWWA recommendations, and should not be penalized based on an arbitrary threshold that the AWWA has explicitly rejected.

Q. ORS WITNESS MAURER STATES THAT “THE COMPANY EXPERIENCED A LARGE INCREASE TO THE NUMBER OF SUBDIVISIONS WITH MORE THAN 10% NON-REVENUE WATER SINCE ITS LAST RATE CASE.” DO YOU AGREE WITH THAT STATEMENT?

A. No. The comparison made by Witness Maurer’s list of 21 systems in this proceeding to the 3 systems identified in testimony by ORS in the last rate case is not apples-to-apples. Of the 21 systems cited by Witness Maurer:

- 5 were partially supplied by Company-owned wells during the 12 months ended 11/30/2019,⁴ and an additional 4 systems were supplied partially by wells in the last rate case’s Test Year, but have since transitioned to fully purchased water supply.⁵ During the last rate case, such systems were excluded as it is not determinable whether water losses are generated from the source wells or the purchased supply interconnection.
- The River Hills/Lake Wylie system was excluded in the last rate case, as under the prior York County franchise agreement BGWC customers were charged the actual

⁴ Stonegate (2 wells), Leon Bolt (1 well), Washington Heights (2 wells), Charleswood (3 wells), and Country Oaks (2 wells).

⁵ Farrowood, Foxwood, Hidden Lakes, and Peachtree Acres.

1 York County rate, and there was therefore no need to consider water loss in pro-
2 forma Purchased Water Expense.

- 3 • In its last rate case, it was determined that 2 systems noted here by Witness Maurer
4 had their data compromised by meter reader errors, and a billed consumption
5 adjustment was proposed instead of a water loss adjustment by ORS.

6 Additionally, the Company has improved its recordkeeping and data gathering, is now
7 better aware of the most problematic areas for non-revenue water, and is now better
8 equipped to implement system improvements to address non-revenue water. As discussed
9 in Company Witness Denton's testimony, the Company is engaged in the long-term
10 process of substantially improving Blue Granite's performance. This necessarily requires
11 that the Company know its systems better so that it can more strategically plan for asset
12 maintenance and capital investment. Blue Granite should not be penalized for engaging in
13 this process, which is ultimately to the benefit of customers.

14 **Q. ORS ADJUSTS PURCHASED WATER EXPENSE BASED ON THE COMPANY'S**
15 **NON-REVENUE WATER FIGURES FOR THE 12 MONTHS ENDED 11/30/2019.**
16 **IS THAT AN APPROPRIATE FIGURE FOR QUANTIFYING AND**
17 **DISALLOWING PURCHASED WATER EXPENSES?**

18 **A.** No. As noted earlier in my testimony, 5 of the systems listed by Witness Maurer were
19 served by Company wells during the 12-month period utilized, and therefore some of the
20 non-revenue water is attributable to the source wells and should not be used to quantify the
21 cost of non-revenue water from the purchased water supplier.

22 **Q. YOU STATE THAT THE AWWA RECOMMENDS AGAINST USING AN**
23 **ABRITRARY THRESHOLD TO MEASURE A UTILITY'S NON-REVENUE**

**WATER PERFORMANCE. IN THE ABSENCE OF ORS OR THE COMMISSION
USING A THRESHOLD, WHAT DO YOU RECOMMEND?**

A. I believe that the Company's non-revenue performance should be evaluated consistent with the AWWA's recommendations, including recognizing the benefit-cost analysis to evaluate alternative activities for achieving compliance. While the Company is taking measures to actively address non-revenue water, infrastructure investigations, repairs, and replacements can be extremely expensive, and these costs would be passed along to customers.

To assist in providing some perspective to the cost considerations, the below Table 1 summarizes the 16 systems listed by Witness Maurer not supplied partially by Company wells, and the estimated cost of a helium leak detection study to identify the extent of leaks in the distribution system. The estimated cost is based on a cost-per-linear foot as experienced by the Company's North Carolina affiliate in initiating similar studies in 2019. As shown, the leak detection studies alone would cost more than the annual cost of non-revenue water above ORS's threshold, without any consideration for the follow-up costs to repair or replace leaking water lines. It should also be noted that a leak detection study is not guaranteed to identify any and all water losses that lead to non-revenue water above a certain threshold, and therefore would not guarantee significant mitigation on its own, but such efforts would be an essential early step in addressing non-revenue water.

TABLE 1:

Subdivision	Non-Revenue Water Rate	Feet of Main	Connections at Test Year-end 6/30/2019	Non-Revenue Water Cost over 10%	Leak Detection Cost (\$0.59/ft)
WESTSIDE TERRACE	30%	9504	64	\$1,742.37	\$5,647.28

PEACHTREE ACRES	49%	10560	48	\$10,696.13	\$6,274.76
RIVER HILLS	14%	241658	4804	\$69,977.53	\$143,593.33
1-20	20%	180711	2419	\$107,973.68	\$107,378.59
ROLLINGWOOD	11%	24288	193	\$993.87	\$14,431.94
WATERGATE/ SPENCEPOINT/ MALLARD SHORES	17%	23676	143	\$2,454.46	\$14,068.29
WINDWARD POIN T- HARBOUR PLACE	13%	5280	111	\$1,794.28	\$3,137.38
DUTCHVILLAGE/ DUTHCREEK	11%	4,850	17 9	\$906.49	\$2,881.87
DUTCHMAN SHORES	13%	17689	162	\$1,136.24	\$10,510.81
FARROWOOD	11%	7180	146	\$440.64	\$4,266.36
FOXWOOD	12%	18480	220	\$1,387.57	\$10,980.83
HIDDEN LAKES	36%	8800	46	\$5,559.32	\$5,228.97
CALHOUN ACRES	14%	9350	75	\$258.47	\$5,555.78
HILL AND DALE	53%	7570	67	\$11,108.55	\$4,498.10
CLEARVIEW	12%	7425	62	\$302.68	\$4,411.94
HIDDEN LAKE	18%	21450	71	\$1,603.57	\$12,745.60

A more reasonable approach than requiring all of a utility's systems to achieve a 10% non-revenue water target—and one that would be consistent with the AWWA's recommendations—would be to set goals for each system and to evaluate the Company's efforts towards reducing non-revenue water. In this vein, the Company is willing to accept ORS's recommendation that the Company engage a third-party to complete water audits for its systems. In light of the associated cost, the Company requests that the Commission authorize deferral treatment of the resulting third-party audit costs, and the accrual of carrying cost at the Company's authorized cost of debt, to facilitate recovery in the Company's next rate case. The system water audits performed would concentrate on the following tasks:

Task 1: Review of existing Water Audits and Water Audit Relevant Data

Task 2: Validation of Water Balance Data and Recommendation for Bottom-Up Data**Validation Tests****Task 3: Preparation of AWWA Water Balance:**

Water Supplied	Authorized Consumption	Billed Authorized Consumption	Billed Metered Consumption	Revenue Water
			Billed Unmetered Consumption	
		Unbilled Authorized Consumption	Unbilled Metered Consumption	Non-Revenue Water
			Unbilled Unmetered Consumption	
	Water Losses	Apparent Losses	Unauthorized Consumption	
			Customer Meter Inaccuracies	
			Data Handling Errors	
		Real Losses		

Task 4: Recommendations for Water Loss Control and Infrastructure**Task 5: Field Leak Detection**

As discussed above, the AWWA's position, with which I agree, is that utilities should be evaluated based on the steps they are taking to reduce non-revenue water rather than be subject to an arbitrary one-size-fits-all threshold. I've identified that, in other jurisdictions, a variety of thresholds have been implemented, as noted in Table 2 below. Based on the above considerations for assessing non-revenue water per the AWWA, the cost to initiate loss mitigation efforts, and the standards used by various jurisdictions, the Company would propose a 20% non-revenue water threshold should the Commission deem a particular threshold is warranted in this proceeding.

State	Source

	Water Loss Threshold	
Tennessee	20%	AWWA Manual 36 - Water Audits and Loss Control Programs, Water Loss Regulatory Approaches, Page 12
Pennsylvania	20%	Title 52, Section 65.20(4)
North Carolina	15%	Docket W-218, Sub 498, Order at 117, 12/18/2018
Florida	10%	Rule 25-30.4325(1)(e)
Wisconsin	25% for small utilities, 15% for large utilities	AWWA Manual 36 - Water Audits and Loss Control Programs, Water Loss Regulatory Approaches, Page 12

1 **Q. YOU MENTION EVALUATING THE COMPANY'S EFFORTS TO ADDRESS**
2 **NON-REVENUE WATER. HOW HAS THE COMPANY MADE STRIDES IN**
3 **MITIGATING WATER LOSS SINCE ITS LAST RATE CASE?**

4 **A.** In the Dutch Village/Dutch Creek neighborhood in Columbia, we identified and repaired a
5 leak in February 2019, and we will continue to monitor that system and others for other
6 leaks that may be occurring. The River Hills neighborhood in York and the I-20 / Brighton
7 Forest neighborhood in West Columbia are our two most costly systems in terms of water
8 loss. For River Hills, we installed AMI meters in 2019, which should help with leak
9 identification and remediation, and we will continue to work with York County to ensure
10 that the master meter showing system inflows at the interconnection is accurate. For
11 Brighton Forest, we are taking similar measures. AMI meters are planned to be installed
12 in 2020 and 2021, and we have requested that the vendor test the interconnection meter for
13 accuracy. In summary, where it makes financial sense for our customers, we are taking
14 proactive steps to address and reduce water loss at the lowest reasonable cost.

15 **II. OTHER ISSUES**

16 **Q. CONSUMER ADVOCATE WITNESS MORGAN SUGGESTS THAT THE STORM**
17 **RESERVE FUND IS NOT NECESSARY BECAUSE "A SIGNIFICANT PORTION**

1 A (DENTON) So my predecessor made the decision, in
2 conjunction with the overarching strategy of this
3 company, as we were looking at the next five, ten,
4 twenty years of where we're heading, to make the
5 move from an industrial park located in the
6 Columbia area to one that was more suited for an
7 administrative office.

8 Q Sure.

9 A (DENTON) Once that decision was made, whether or
10 not we moved to Columbia, West Columbia,
11 Greenville, wherever, there would have been upfit
12 costs --

13 Q Right.

14 A (DENTON) -- anywhere we were going.

15 Q Absolutely.

16 A (DENTON) And so there was thorough evaluation that
17 was done early on. And, to your point, we did look
18 at upfit costs; our new offices are not gold-plated
19 in any -- by any stretch of the imagination. I
20 think the average cost for us on the upfit was
21 about \$115 per square foot.

22 Q Uh-huh.

23 A (DENTON) In my experience -- I'm a licensed
24 general contractor in the state of North Carolina,
25 although inactive right now -- that's fairly

1 reasonable.

2 Q Sure.

3 A (DENTON) Actually, below market for a lot of these
4 local markets in the Carolinas.

5 Q Sure. So do you know how much my neighborhood pays
6 per house for water and sewage? Do you guys?

7 A (DENTON) I'm not sure which --

8 Q We're Foxwood subdivision in --

9 A (DENTON) Foxwood subdivision?

10 Q -- Fort Mill, South Carolina, yes, sir.

11 A (DENTON) Off the top of my head, I don't know
12 exactly --

13 Q Okay.

14 A (DENTON) -- what the rate is.

15 Q My household, I'll go ahead and tell you, we pay
16 anywhere from 145 to 155 dollars a month for water
17 and sewage, okay?

18 Now, I have myself, my wife, and we have three
19 young boys all under the age of ten. We do try to
20 do our best to conserve water but, hey, you know,
21 they slip away; they get into the bathroom and --
22 and -- and we -- we do our best to manage them.
23 But -- but then I went to my neighbor who lives to
24 the right across the street from me; now, she's a
25 single lady. She's 80, retired. You know what she

1 Q Good morning, Mr. Denton and Mr. Mendenhall.

2 A (DENTON) Morning.

3 A (MENDENHALL) Morning.

4 Q My first questions are for you, Mr. Denton, and
5 it's regarding the Greenville office upfit. Mr.
6 Denton, in your testimony today, and also in your
7 surrebuttal, you reference a guide that a real-
8 estate firm called "JLL Project and Development
9 Services" published based on data from projects it
10 manages, correct?

11 A (DENTON) Correct.

12 Q Okay. And I believe you refer to this guide as a
13 "benchmark guide"?

14 A (DENTON) Correct.

15 Q You cite this guide in support of the Blue
16 Granite's position that the \$495-thousand-plus
17 spent to upfit its new headquarters was reasonable,
18 correct?

19 A (DENTON) It's one of the reasons, yes.

20 Q Okay. I'd like to ask you a few questions about
21 that guide. I've --

22 A (DENTON) Okay.

23 Q -- got some copies here.

24 MR. HUBER: (To Mr. Erskine) Is the ELMO on?

25 Let's find out. Thank you.

1 Q Mr. Denton, is this the -- the guide that you
2 reference?

3 A (DENTON) I'm looking for the version, but I think
4 it is, yes. 2019. Yes.

5 Q Okay. And I -- I'd -- I'd like you to flip to the
6 page that I flagged.

7 A (DENTON) Okay.

8 MR. WELLBORN: Would you mind telling us what
9 page that is, Mr. Huber? And maybe a --

10 MR. HUBER: It's --

11 MR. WELLBORN: -- copy of the report just so
12 we can --

13 MR. ELLERBE: (To Mr. Huber) Can we have a
14 copy?

15 MR. HUBER: It's seven pages in. Have you --
16 it's not, you know --

17 A (DENTON) Titled "Details on Guide Assumptions and
18 Methodology"?

19 Q Yes. That's correct.

20 A (DENTON) Correct.

21 Q I'm going to read to you the paragraph on this
22 page. It's got the heading, "Class A Buildings,"
23 and I'd like to confirm that what I've read here is
24 correct.

25 "The average fit-out in this guide is

1 represented by a medium-quality and moderate-style
2 fit-out as described in the fit-out cost matrix on
3 Page 10. This average fit-out is intended to
4 represent the typical fit-out found in a typical
5 Class A office building. We define a 'Class A
6 office building' -- excuse me -- "'Class A
7 building' as an above-average building in a given
8 market, with excellent finishes, building service
9 -- services, building systems, and location. Rents
10 for a Class A building are usually in the top third
11 of the overall market, although vary -- can --
12 although this figure can vary by market." Is that
13 what that paragraph states?

14 A (DENTON) Yes.

15 Q So am I correct in saying that your benchmark for
16 "reasonable" is actually defined as a building with
17 excellent finishes, building services, building
18 systems, and location?

19 A (DENTON) I would say that that was the comparison.
20 However, our building is not quite up to this
21 level, I would say.

22 Q But you -- you do rely on this to support your
23 position --

24 A (DENTON) We do.

25 Q -- upfit costs were reasonable?

1 A (DENTON) Yes.

2 Q Did you review this report prior to citing it in
3 your testimony?

4 A (DENTON) I reviewed portions of it.

5 Q And do you believe that Blue Granite's customers
6 should have to pay a premium for a company's office
7 because it sought excellent finishes, building
8 systems, and locations?

9 A (DENTON) Well, I wouldn't call it a "premium" at
10 \$115 a square foot.

11 Q Well, that -- that is not the lease expense,
12 correct?

13 A (DENTON) That's not the lease expense, but that's
14 the upfit cost. And to the point of the building
15 being in excellent condition, I'm going to -- I'll
16 go back to the quote here, "excellent finishes,
17 building services, and building systems." I
18 actually believe, on the day that ORS visited us,
19 the elevators weren't working, and everybody had to
20 climb eight stories in order to get to our offices.
21 I mean, it's not a modern building by any stretch
22 of the imagination.

23 Q Buildings can go out even in an above-average or
24 excellent building, correct? No. I'm sorry. An
25 elevator can go out in an above-average or

1 a customer's meter as being consumed?

2 A (MENDENHALL) I wouldn't just isolate it to a
3 purchased-water system. It could be from a system
4 supplied by wells. And, also -- and, as a general
5 -- the old thinking was what was produced -- a
6 gallon produced should be a gallon that is paid
7 for, and it's the difference in between.

8 Q But -- but am I correct, it's water that doesn't
9 actually show up in the data the -- the consumption
10 data for customers?

11 A (MENDENHALL) Yes.

12 Q What percentage of non-revenue water are you able
13 to explain using the data that the company has?

14 A (MENDENHALL) It varies by system.

15 Q Do you have an overall percentage that you're --
16 that you're able to explain?

17 A (MENDENHALL) Once again, it varies by system. You
18 can't assign just a singular percentage to overall
19 systems.

20 Q And part of your testimony states that you -- you
21 refer to the American Water Works Association. You
22 state that they -- your testimony is they suggest
23 setting subdivision-specific goals, correct?

24 A (MENDENHALL) Correct.

25 Q Has the company proposed subdivision-specific goals

1 in this case?

2 A (MENDENHALL) Not that I'm -- not that I'm aware
3 of. There's a listing of subdivisions in my
4 rebuttal testimony.

5 Q Okay. In fact, what the company has proposed, if a
6 threshold is set, is that a 20 percent threshold be
7 set; is that correct?

8 A (MENDENHALL) That was a suggestion in the
9 rebuttal, yes, if an arbitrary rate was used.

10 Q And that's -- that's quite -- that's twice the 10
11 percent threshold set in Carolina Water's prior
12 rate case, correct? Twenty percent would be twice
13 the 10 percent threshold that was set in Carolina's
14 prior rate case?

15 A (MENDENHALL) That is my understanding, yes.

16 Q For systems that are partially supplied by well
17 water and partially supplied by purchased water,
18 how does Blue Granite propose to treat those?

19 A (MENDENHALL) I think it's detailed out in the --
20 in my rebuttal. There's a -- there's not a means
21 to show you where the true lost water, which
22 purveyor it's coming from, whether it's from the
23 wells themselves or from the purchase provider.

24 Q So am I correct that the threshold would not apply
25 to those systems, regardless of how -- what -- what

1 and Duke Energy are considered "peer utilities."
2 How -- how are those peers? Are they peers of Blue
3 Granite or peers of Corix?
4 A (DENTON) Well, they are peers from the standpoint
5 of they are regulated utilities, and we do have
6 discussions around regulatory constructs. We do
7 have discussions around resources. We do have
8 discussions -- we do have discussions with them on
9 a number of different areas. And so the "peer"
10 term, although we're regulated water and
11 wastewater, Duke energy is not, doesn't preclude
12 the fact that we still have opportunities to
13 discuss and meet together on common areas of
14 interest.
15 Q You -- it's been stated by you and a couple of
16 other people, I think, that there were difficulties
17 in attracting talent in the Columbia market, and I
18 think you indicated that it was difficult due to
19 legacy brand issues in the market. Do you recall
20 that statement?
21 A (DENTON) I do.
22 Q And why was that?
23 A (DENTON) Well, again, back to, I think, some of
24 your earlier comments, we did have some operational
25 issues. Bryce had mentioned the fact that he had

1 issues in filling positions from an operations
2 perspective. The same type of thing was
3 anticipated for the administrative offices.

4 Q And -- and so the -- basically, the company didn't
5 have a good name. Is that a fair assessment?

6 A (DENTON) That's a fair assessment.

7 Q And whose responsibility is that?

8 A (DENTON) Legacy company.

9 Q I -- don't get me wrong. I appreciate a change in
10 culture, and I hope that's where we're going, but
11 there's got to be some responsibility, somewhere,
12 for how it got there, and that's -- that's --
13 that's part of my concern, I can just tell you
14 right now.

15 Let's talk a little bit about the bulk water
16 charges and the bulk treatment charges. Does Blue
17 Granite take any steps to ensure that the bulk
18 purchased water or the bulk treatment services, the
19 -- that those charges are at the lowest possible
20 rates available from the bulk suppliers?

21 A (DENTON) So my understanding is the majority of
22 these are non-negotiable. They come through to us
23 on their rate constructs, whether it's through the
24 municipalities or cities that we've set these
25 contracts up with.

1 A (MENDENHALL) Yes.

2 Q Could the company, from an operational perspective,
3 divide up this water audit over a couple of years,
4 or something like that, to make the rate impact on
5 customers a little bit more acceptable?

6 A (MENDENHALL) Yes. Put -- put the -- rotate the
7 systems throughout, yes.

8 MR. WELLBORN: That's all I have, Mr.
9 Chairman. Thank you.

10 CHAIRMAN RANDALL: Thank you. We'll offer any
11 recross on those questions, if there is any.

12 MR. MOORE: I -- just a few questions --

13 CHAIRMAN RANDALL: Mr. Moore.

14 MR. MOORE: -- in regard to --

15 RECROSS-EXAMINATION

16 BY MR. MOORE:

17 Q Mr. Mendenhall, I will try and be brief. You were
18 talking -- and I -- I wrote it down when you said
19 it -- you talked about CleanWater [sic] and their
20 operations of those Midlands -- Midlands systems.
21 The Midlands systems would include Friarsgate,
22 right?

23 A (MENDENHALL) That is correct.

24 Q So, actually, the operator for Friarsgate is
25 CleanWater [sic]?

1 company considered other areas before it relocated
2 to Greenville --

3 A (DENTON) Yes.

4 Q -- is that correct? What other areas did the
5 company consider?

6 A (DENTON) Well, it's in the CBRE report; I know we
7 looked at Columbia and West Columbia.

8 Q Did you look at and price spaces for offices in
9 those areas?

10 A (DENTON) I don't know if that was performed or
11 not. I know that --

12 Q Okay.

13 A (DENTON) -- in the analysis that was done through
14 the CBRE report that that was -- they looked at
15 those areas.

16 Q And that's referring to -- but you don't know as
17 far as looking at the cost of running an office or
18 upfitting an office, whether that was looked at?

19 A (DENTON) No. I do not know if that was done.

20 Q Okay. Am I correct: You've testified to legacy
21 brand issues the company was experiencing, correct?

22 A (DENTON) We have had some, yes.

23 Q And you've testified --

24 MR. WELLBORN: Mr. Chairman, I don't think
25 this issue was covered in cross.

1 I derived my 10.20 percent to 10.70 percent
2 range of common equity cost rates by applying
3 market based common equity models, such as the
4 discounted cash flow model, or DCF; capital asset
5 pricing model, or CAPM; and risk premium model, or
6 RPM; to a proxy group of publicly traded water
7 utility companies.

8 Applying market-based cost of common equity
9 models to companies comparable in risk to the
10 regulated utility is consistent with the principles
11 of fair rate of return established in Hope and
12 Bluefield US Supreme Court cases, especially the
13 corresponding risk standard, which mandates that an
14 authorized return on a common equity for a utility
15 should be commensurate with the returns on
16 investments and other -- other enterprises with
17 corresponding risks. However, no proxy group of
18 companies can be identical in risk to -- to any
19 single company, including Blue Granite. Therefore,
20 adjustments to the market results of the proxy
21 group may be needed to reflect any risk differences
22 between Blue Granite and the proxy group.

23 Through my selection criteria, I selected six
24 water companies with similar risks as Blue Granite.
25 All six of those companies was used by Mr. Parcell

1 in his analysis, and five of those six companies
2 were used by Mr. Rothschild in his analysis. I
3 applied the DCF, the CAPM, and the risk premium to
4 the group of companies, and the indicated results
5 are as follows: The DCF method had an indicated
6 cost rate of 9.03 percent; the risk premium model
7 had an indicated cost rate of 10.39 percent; and
8 the CAPM had an indicated cost rate of 9.91
9 percent.

10 I then applied the same three common equity
11 cost models to a group of 14 non-price-regulated
12 companies similar in total risk to the water proxy
13 group. "Total risk" is the sum of systematic or
14 market risk and non-systematic or diversifiable
15 risk. The screening criteria for -- for my non-
16 regulated proxy group used unadjusted data as a
17 measure of systematic risk and the residual
18 standard errors of regression as a measure of the
19 non-systematic risk. If the price -- price
20 regulated -- if the non-price-regulated company
21 passed both criteria, they were included in my
22 group. The indicated ROE, by applying the market
23 models to that group, was 11.57 percent.

24 After reviewing the results of the model, I
25 concluded that the indicated ROE was 10.2 percent

1 proven to be random based on measures of serial
2 correlation.

3 His failure to use the empirical CAPM, or
4 ECAPM, in his CAPM analysis causes his CAPM
5 analysis not to reflect the empirical studies that
6 show the flattening of the security market line, in
7 which low beta stocks perform better than predicted
8 based on the CAPM and high beta stocks perform
9 poorer than predicted by the CAPM.

10 His failure to use projected interest rates,
11 despite the prospective nature of the cost of
12 capital, the -- his misapplication of the
13 comparable earnings model, and his failure to
14 reflect the unique risks of Blue Granite over and
15 above the range of indicated results generated by
16 his proxy group.

17 I have corrected his results and -- and the --
18 and -- throughout my testimony and -- and came up
19 with a range from my corrected results in between
20 10.10 percent and 10.60 percent.

21 I then respond to Mr. Rothschild's direct
22 testimony and -- and address his interpretation of
23 current and expected market conditions. Again, his
24 -- his undue weighting and misapplication of his
25 constant growth and non-constant-growth DCF models,

corresponding cost rates the Company should be given the opportunity to earn on its jurisdictional rate base.

Q. Have you prepared an exhibit in support of your recommendation?

A. Yes. I have prepared D'Ascendis Direct Exhibit No. 1, which consists of Schedules DWD-1 through DWD-8.

Q. What is your recommended cost of capital for BGWC?

A. I recommend the Public Service Commission of South Carolina (the "Commission") authorize the Company the opportunity to earn an overall rate of return between 8.10%-8.36% based on a test year ending June 30, 2019. The ratemaking capital structure consists of 47.09% long-term debt at an embedded debt cost rate of 5.73%, and 52.91% common equity at my recommended range of common equity cost rates between 10.20% and 10.70%. The overall rate of return is summarized on page 1 of Schedule DWD-1 and in Table 1 below:

Table 1: Summary of Overall Rate of Return

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	47.09%	5.73%	2.70%
Common Equity	<u>52.91%</u>	10.20-10.70%	<u>5.40%-5.66%</u>
Total	<u>100.00%</u>		<u>8.10%-8.36%</u>

III. SUMMARY

Q. Please summarize your recommended range of common equity cost rates.

A. My recommended range of common equity cost rates is between 10.20% and 10.70%, and is summarized on page 2 of Schedule DWD-1. I have assessed the market-based common

equity cost rates of companies of relatively similar, but not necessarily identical, risk to BGWC. Using companies of relatively comparable risk as proxies is consistent with the principles of fair rate of return established in the *Hope*¹ and *Bluefield*² cases. No proxy group can be identical in risk to any single company, so there must be an evaluation of relative risk between the company and the proxy group to see if it is appropriate to make adjustments to the proxy group's indicated rate of return.

My recommendation results from the application of several cost of common equity models, specifically the Discounted Cash Flow ("DCF") model, the Risk Premium Model ("RPM"), and the Capital Asset Pricing Model ("CAPM"), to the market data of a proxy group of six water companies ("Utility Proxy Group") whose selection criteria will be discussed below. In addition, I also applied the DCF, RPM, and CAPM to a proxy group of domestic, non-price regulated companies comparable in total risk to the six water companies ("Non-Price Regulated Proxy Group").

The results derived from each are as follows:

¹ *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

² *Bluefield Water Works Improvement Co. v. Public Serv. Comm'n*, 262 U.S. 679 (1922).

Table 2: Summary of Common Equity Cost Rate

	Utility Proxy Group
Discounted Cash Flow Model	9.03%
Risk Premium Model	10.39
Capital Asset Pricing Model	9.91
Cost of Equity Models Applied to Comparable Risk, Non-Price Regulated Companies	<u>11.57</u>
Indicated Common Equity Cost Rate Before Adjustment	10.20%
Business Risk Adjustment	<u>0.50</u>
Recommended Common Equity Cost Rate After Adjustment	<u>10.70%</u>
Recommended Range of Common Equity Cost Rates	<u>10.20-10.70%</u>

After analyzing the indicated common equity cost rates derived through these models, I conclude that a common equity cost rate of 10.20% for the Company is indicated before any Company-specific adjustments. The indicated common equity cost rate was then adjusted upward by 0.50% to reflect BGWC's higher relative business risk as compared with the members of the Utility Proxy Group, resulting in a business risk-adjusted indicated common equity cost rate of 10.70%. The unadjusted common equity cost rate based on the Utility Proxy Group of 10.20% and the business risk adjusted common equity cost rate of 10.70% applicable to BGWC form the basis of my recommended range of common equity cost rates between 10.20% and 10.70%.

1 **IV. GENERAL PRINCIPLES**

2 **Q. What general principles have you considered in arriving at your recommended range**
3 **of common equity cost rates between 10.20% and 10.70%?**

4 A. In unregulated industries, the competition of the marketplace is the principal determinant
5 of the price of products or services. For regulated public utilities, regulation must act as a
6 substitute for marketplace competition. Assuring that the utility can fulfill its obligations
7 to the public, while providing safe and reliable service at all times, requires a level of
8 earnings sufficient to maintain the integrity of presently invested capital. Sufficient
9 earnings also permit the attraction of needed new capital at a reasonable cost, for which the
10 utility must compete with other firms of comparable risk, consistent with the fair rate of
11 return standards established by the U.S. Supreme Court in the previously cited *Hope* and
12 *Bluefield* decisions. Consequently, marketplace data must be relied on in assessing a
13 common equity cost rate appropriate for ratemaking purposes. Just as the use of the market
14 data for the proxy group adds reliability to the informed expert's judgment used in arriving
15 at a recommended common equity cost rate, the use of multiple generally accepted
16 common equity cost rate models also adds reliability and accuracy when arriving at a
17 recommended common equity cost rate.

18 **A. Business Risk**

19 **Q. Please define business risk and explain why it is important to the determination of a**
20 **fair rate of return.**

21 A. Business risk is the riskiness of a company's common stock without the use of debt and/or
22 preferred capital. Examples of such general business risks faced by all utilities (*i.e.*,
23 electric, natural gas distribution, and water) include size, the quality of management, the

1 54.75% in 2018. The equity ratio, on average, maintained by the Utility Proxy Group is
2 higher than the equity ratio requested by the Company.

3 In my opinion, a capital structure consisting of 47.09% long-term debt and 52.91%
4 common equity is appropriate for ratemaking purposes for BGWC in the current
5 proceeding because it is comparable, but conservative, to the average capital structure
6 ratios (based on total permanent capital) maintained by the water companies in the Utility
7 Proxy Group on whose market data I base my recommended common equity cost rate.

8 **Q. What cost rate for long-term debt is most appropriate for use in a cost of capital**
9 **determination for BGWC?**

10 A. A long-term debt cost rate of 5.73% is reasonable and appropriate as it is based on a test
11 year of CRU's long-term debt outstanding ending June 30, 2019.

12 **VI. BGWC AND THE UTILITY PROXY GROUP**

13 **Q. Are you familiar with the operations of BGWC?**

14 A. Yes. BGWC has approximately 26,400 customers in 16 counties: Lexington, Richland,
15 Sumpter, Aiken, Saluda, Orangeburg, Greenwood, and Williamsburg. The Company
16 operates 105 water systems and 28 sewer systems. BGWC is an operating subsidiary of
17 CRU, which is a wholly-owned subsidiary of Corix Infrastructure, Inc ("CII"). BGWC's
18 common stock is not publicly-traded.

19 **Q. Please explain how you chose your proxy group of six water companies.**

20 A. The basis of selection for the Utility Proxy Group was to select those companies which
21 meet the following criteria:

1 ratio based on total permanent capital (excluding short-term debt) was 55.57%, and the
2 average dividend payout ratio was 60.28%.

3 Total debt to earnings before interest, taxes, depreciation, and amortization
4 ("EBITDA") for the years 2014 to 2018 ranges between 3.42 and 3.98, with an average of
5 3.56. Funds from operations to total debt range from 23.84% to 26.23%, with an average
6 of 25.11%.

7 **VII. COMMON EQUITY COST RATE MODELS**

8 **Q. Are your cost of common equity models market-based models?**

9 A. Yes. The DCF model is market-based because market prices are used in developing the
10 dividend yield component of the model. The RPM is market-based because the bond
11 ratings and expected bond yields used in the application of the RPM reflect the market's
12 assessment of bond/credit risk. In addition, the use of beta coefficients (β) to determine
13 the equity risk premium reflects the market's assessment of market/systematic risk, since
14 beta coefficients are derived from regression analyses of market prices. The Predictive
15 Risk Premium Model ("PRPM") uses monthly market returns in addition to expectations
16 of the risk-free rate. The CAPM is market-based for many of the same reasons that the
17 RPM is market-based (*i.e.*, the use of expected bond yields and beta coefficients).
18 Selection of the comparable risk non-price regulated companies is market-based because
19 it is based on statistics which result from regression analyses of market prices and reflect
20 the market's assessment of total risk.

1 **Q. How is the cost rate of common equity based on the Non-Price Regulated Proxy**
2 **Group comparable in total risk to the Utility Proxy Group?**

3 A. As shown on page 1 of Schedule DWD-7, the results of the DCF, RPM, and CAPM applied
4 to the Non-Price Regulated Proxy Group comparable in total risk to the Utility Proxy
5 Group are 12.14%, 11.60%, and 10.84%, respectively. The average of the mean and
6 median of these models is 11.57%, which I use as the indicated common equity cost rate
7 for the Non-Price Regulated Proxy Group.

8 **VIII. CONCLUSION OF COMMON EQUITY COST RATE BEFORE ADJUSTMENT**

9 **Q. What is the indicated common equity cost rate before adjustment?**

10 A. Based on the results of the application of multiple cost of common equity models to the
11 Utility Proxy Group and the Non-Price Regulated Proxy Group, the indicated cost of equity
12 before adjustment is 10.20%. I use multiple cost of common equity models as primary
13 tools in arriving at my recommended common equity cost rate, because no single model is
14 so inherently precise that it can be relied on solely to the exclusion of other theoretically
15 sound models. The use of multiple models adds reliability to the estimation of the common
16 equity cost rate, and the prudence of using multiple cost of common equity models is
17 supported in both the financial literature and regulatory precedent.

18 Based on these common equity cost rate results, I conclude that a common equity
19 cost rate of 10.20% is reasonable, appropriate and indicated for the Company before any
20 adjustment for relative risk between the Company and the Utility Proxy Group is made.
21 The 10.20% indicated ROE is the approximate average of the mean and median results
22 produced by my application of the models as explained above.

III. SUMMARY

Q. PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.

A. First, my updated analysis results in a recommendation that the South Carolina Public Service Commission (the "Commission" or "SC PSC") authorize the Company the opportunity to earn a WACC between 7.86% and 8.12%, based on a ratemaking capital structure as of June 30, 2019. The ratemaking capital structure is based on the actual capital structure of BGWC's parent, CORIX Regulated Utilities, Inc., at June 30, 2019. It consists of 47.09% long-term debt at an embedded cost rate of 5.73% and 52.91% common equity at my updated range of ROEs between 9.75% to 10.25%. My updated recommended range of overall rate of returns is summarized on page 1 of Schedule DWD-1R and in Table 1, below:

Table 1: Summary of Updated Overall Rate of Return

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	47.09%	5.73%	2.70%
Common Equity	<u>52.91%</u>	9.75% - 10.25%	<u>5.16% - 5.42%</u>
Total	<u>100.00%</u>		<u>7.86% - 8.12%</u>

Second, I will respond to Mr. Parcell's estimation of the Company's ROE and explain its shortcomings, including his:

- Undue weighting of his DCF results;
- Misapplication of the Capital Asset Pricing Model ("CAPM");
- Misapplication of the Comparable Earnings Model ("CEM"); and
- Failure to account for BGWC's size-specific risks over and above the range of ROEs indicated by his proxy groups.

RESPONSE TO MR. PARCELL

Q. PLEASE PROVIDE A SUMMARY OF MR. PARCELL'S DIRECT TESTIMONY AND RECOMMENDATIONS.

A. Mr. Parcell estimates BGWC's cost of common equity based on the results of his constant growth DCF model, the CAPM, and the CEM. From these results, Mr. Parcell recommends a range of common equity cost rates of 8.90% (DCF) to 10.00% (CEM). From this range, he recommends a 9.45% common equity cost rate for BGWC.¹

Q. DO YOU HAVE ANY GENERAL COMMENTS ON MR. PARCELL'S ANALYSES AND RECOMMENDATIONS?

A. Yes. I would note that my updated range of ROEs, 9.75% to 10.25% and Mr. Parcell's recommended range of ROEs, 8.90% to 10.00% overlap between 9.75% and 10.00%.

Q. PLEASE SUMMARIZE THE KEY AREAS WITH WHICH YOU DISAGREE WITH MR. PARCELL'S ANALYSES AND RECOMMENDATIONS.

A. The principal areas in Mr. Parcell's analyses with which I disagree include the significant weighting of his DCF results, his application of the CAPM, his application of the CEM, and his failure to recognize the greater operational risk BGWC faces relative to that of his proxy group companies.

A. Significant Weighting of DCF Results

Q. DID MR. PARCELL RELY EQUALLY ON HIS DCF AND CEM ANALYSIS?

A. Yes, he did. Mr. Parcell relied equally on the results of his DCF model and CEM to form his recommended range of common equity cost rates, 8.90% and 10.00%. While I do not

¹ Direct Testimony of ORS Witness Parcell at 3-4.

The Size Study uses the following eight measures of size, all of which have empirically shown that over the long-term, the smaller the company, the higher the risk:

- Market Value of Common Equity (or total capital if no debt / equity);
- Book Value of Common Equity;
- Net Income (five-year average);
- Market Value of Invested Capital;
- Total Assets (Invested Capital);
- Earnings Before Interest, Taxes, Depreciation & Amortization (“EBITDA”) (five-year average);
- Sales / Operating Revenues; and
- Number of Employees.

I used the D&P Size Study to determine the approximate magnitude of any necessary risk premium due to the size of BGWC relative to Mr. Parcell’s proxy groups. Page 3 of Schedule DWD-11R shows the relative size of BGWC compared with the proxy groups.⁴² Indicated size adjustments based on these relative measures range from 1.08% to 3.55%, averaging 1.99%. From these results, it is clear that BGWC is riskier than the utility proxy groups due to its smaller relative size, and that my proposed size adjustment of 50 basis points for BGWC is reasonable and conservative.

Q. HAVE YOU PERFORMED AN ADDITIONAL STUDY FOR UTILITY COMPANIES THAT LINK SIZE AND RISK?

A. Yes, I have. I performed a study on whether or not the size effect is applicable to utilities. The study included the universe of electric, gas, and water companies included in Value Line Standard Edition. From each of the utilities’ Value Line Ratings & Reports, I calculated the ten-year CoV of net profit (a measure of risk) and current market capitalization (a measure of size) for each company. After ranking the companies by size

⁴² Due to BGWC’s financial statements not being consolidated for the five-year period ended 2018, I did not include the five-year net income and five-year EBITDA measures into the study.

1 11.01% (implied PRPM MRP plus the projected risk-free rate of 2.70%) and 14.53%.
2 Based on the historical returns from 1926-2018 from SBBI-2019,⁵⁵ the range of market
3 returns used in my analyses fall between the 44th and 51st percentiles of all historical
4 returns, meaning that the market returns I rely on are in the middle of the road given
5 historical market returns. Given that the historical standard deviation of market returns is
6 approximately 20%, my projected market returns are not outliers.

7 **VI. RESPONSE TO MR. ROTHSCILD**

8 **Q. PLEASE PROVIDE A SUMMARY OF MR. ROTHSCILD'S DIRECT**
9 **TESTIMONY AND RECOMMENDATIONS.**

10 **A.** Mr. Rothschild agrees with the Company's recommendations regarding capital structure
11 and long-term debt cost rate,⁵⁶ but does not agree with the Company's requested cost of
12 common equity. Mr. Rothschild derives an 8.47% cost of common equity based on the
13 high results of his constant growth DCF model, his "non-constant" DCF and his CAPM
14 using 30-year Treasury bonds. From his 8.47% average result, he applies a 28-basis point
15 upward adjustment for size⁵⁷ and a 10-basis point downward adjustment for financial risk,
16 which results in his 8.65% recommendation for BGWC.⁵⁸

17 **Q. DO YOU HAVE ANY GENERAL COMMENTS REGARDING MR.**
18 **ROTHSCILD'S CONCLUSIONS AND RECOMMENDATIONS?**

⁵⁵ SBBI-2019, at Appendix A.

⁵⁶ Direct Testimony of Consumer Advocate Witness Rothschild at 3.

⁵⁷ *Ibid.*, at 7.

⁵⁸ *Ibid.*, at 6.

1 A. The cost of common equity depends on what the market expects, not what has already
2 happened in hindsight. As such, I believe the relevant issue is whether investors are likely
3 to rely on those *Blue Chip* consensus forecasts when making investment decisions. That
4 point aside, the CBO releases a biennial report reviewing its forecasting record. In its most
5 recent Economic Forecasting Record update, the CBO noted its forecasting record was
6 “roughly comparable”⁷⁵ to *Blue Chip*’s. Additionally, *Blue Chip* has been published
7 consistently since 1980. If its information were ignored by investors, the publication would
8 have been discontinued.

9 **Q. AT PAGE 19 OF HIS DIRECT TESTIMONY, MR. ROTHSCHILD CLAIMS THAT**
10 **CREDIT SPREADS BETWEEN 10-YEAR TREASURY BONDS AND MOODY’S**
11 **BAA CORPORATE BONDS ARE A PROXY FOR THE COST OF EQUITY. DO**
12 **YOU AGREE?**

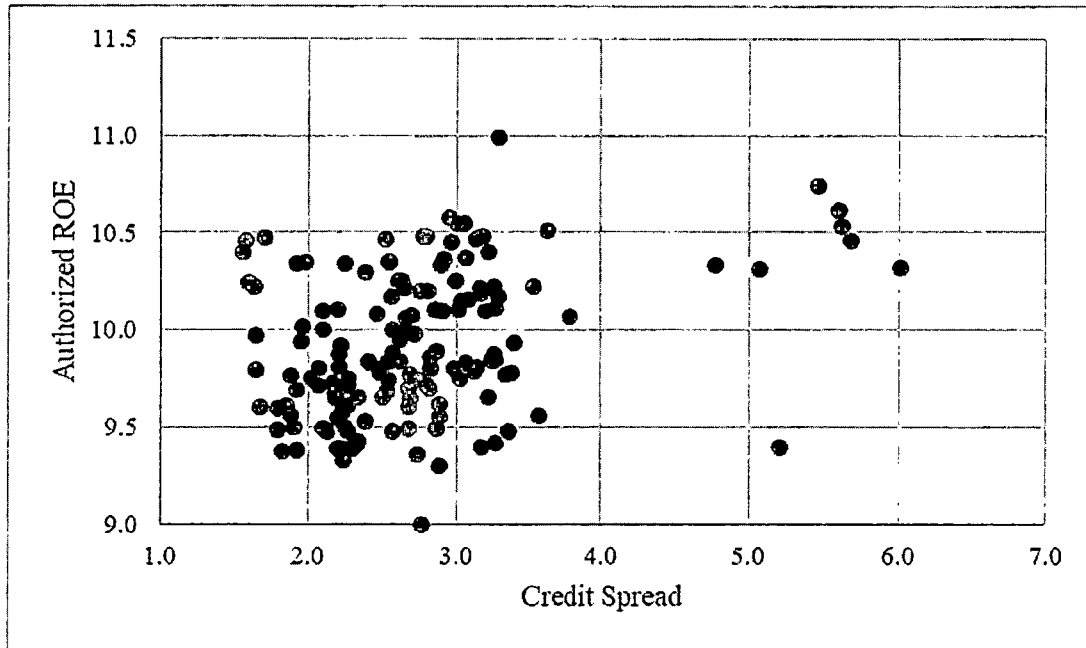
13 A. No, I do not. To test Mr. Rothschild’s claim, I incorporated Mr. Rothschild’s data in his
14 Chart 5 on page 20 of his direct testimony and added the monthly authorized returns for
15 electric and gas companies from January 2007 through December 2019 to form a scatter
16 plot to see if there was any relationship between credit spreads and the cost of capital.

17 **Q. WHAT DID THAT ANALYSIS REVEAL?**

18 A. As shown on Chart 3 below, there was no meaningful pattern between credit spreads and
19 authorized ROEs from utility regulatory commissions.

⁷⁵ CBO’s *Economic Forecasting Record: 2019 Update*, October 2019, at 3.

Chart 3: Scatter Plot of Credit Spreads and Authorized Returns on Common Equity
January 2007 through December 2019



Q. PLEASE DISCUSS MR. ROTHSCHILD'S ASSESSMENT OF THE CURRENT LOW VOLATILITY OF THE OVERALL MARKET AS MEASURED BY THE VOLATILITY INDEX ("VIX") AND ITS RELATIONSHIP TO THE COST OF EQUITY.

A. Mr. Rothschild notes that the VIX, or "Fear Index", reflects the expected volatility of the S&P 500 index over the coming 30 days on an annual basis.⁷⁶ He then notes that the VIX "is significantly lower than it was during the financial crisis and is nearing pre-crisis levels."⁷⁷

⁷⁶ Direct Testimony of Consumer Advocate Witness Rothschild at 21.

⁷⁷ *Ibid.*

1 A. Yes. On pages 60 through 65 of his direct testimony, Mr. Rothschild criticizes my use of
2 projected EPS growth rates in my DCF analysis, seemingly ignoring his statement on page
3 59 of his direct testimony:

4 Currently, his [Mr. D'Ascendis'] growth rates are reasonable and therefore
5 his 9.03% DCF result is on the high side of reasonable for setting rates in
6 this proceeding. [clarification added]

7 Considering the above statement, Mr. Rothschild is creating an issue where one
8 does not exist.

9 **Q. PLEASE DISCUSS THE SUPERIORITY OF PROJECTED EPS GROWTH**
10 **RATES IN A DCF ANALYSIS.**

11 A. Rate of return analysts must attempt to emulate investor behavior in their rate of return
12 analyses and evaluate those factors that influence investor behavior. Security analysts'
13 forecasted EPS growth rates are one such factor. As discussed previously in my direct
14 testimony,⁸⁵ and noted by Morin, what is relevant to investor behavior is the fact that
15 security analysts' forecasted EPS growth rates influence investors' pricing decisions.
16 Moreover, both the cost of common equity as well as ratemaking by this Commission are
17 prospective or forward-looking. The cost of common equity is forward-looking as it is a
18 function of investor expectations. Likewise, this Commission's ratemaking is forward-
19 looking as rates set in this proceeding will be in effect in a future period.

20 Mr. Rothschild's criticism of the use of analysts' forecasts also ignores the
21 significant body of empirical evidence indicating the superiority of analysts' EPS growth
22 rates in a DCF analysis and that analysts' forecasts of earnings remain the best predictor of

⁸⁵ Direct Testimony of Blue Granite Witness D'Ascendis at 15.

1 A (D'ASCENDIS) Yeah. So 9.75 to 10.25 is my -- is
2 my range. The overlap region is 9.75 to 10, but
3 the -- but the 10.25 is the adjusted for -- for
4 size and for regulatory risk.

5 Q Thank you.

6 A (D'ASCENDIS) You're welcome. Thank you.

7 CHAIRMAN RANDALL: Thank you, Mr. Kendree.
8 Okay. And we have reached four o'clock, so
9 we're going to -- going to break now.

10 (To the witnesses) Just reminding,
11 gentlemen, that you will -- are remaining
12 under oath, so you don't have to talk to
13 anybody you don't want to until tomorrow when
14 we come back. And, in fact, it would probably
15 be illegal, so -- and that's probably a good
16 thing.

17 We will begin tomorrow at ten o'clock,
18 and we are adjourned.

19 (Witnesses stood aside)

20 (WHEREUPON, at 4:00 p.m. the proceedings
21 in the above-entitled matter were
22 adjourned, to reconvene on February 27,
23 at 10:00 a.m.)

24 (*This transcript may contain quoted
25 material. Such material is reproduced as

Before the Public Service Commission of South Carolina
Columbia, South Carolina

Hearing # 20-11857 February 27, 2020 10:00 a.m.

Docket Number 2019-290-WS: Blue Granite Water Company
Application for Approval to Adjust Rate Schedules
and Increase Rates

TRANSCRIPT OF TESTIMONY
AND PROCEEDINGS

VOLUME 6 of 10
[MERITS HEARING]

HEARING BEFORE: Chairman Comer H. "Randy" Randall;
Interim Vice Chairman Florence P. Belser;
Commissioner G. O'Neal Hamilton; Commissioner John
E. "Butch" Howard; Commissioner Swain E. Whitfield;
and Commissioner Thomas J. "Tom" Ervin

ADVISOR TO COMMISSION: Jo Anne Wessinger Hill, Esq.
Legal Advisory Staff

STAFF: Jocelyn Boyd, Esq., Chief Clerk/Executive
Director; B. Randall Dong, Legal Advisory Staff; William
O. Richardson and John Powers, Technical Advisory Staff;
Ginger Crocker, Clerk's Office; Rob Bockman, Public
Information Officer; Jackie Thomas, Information
Technology Staff; Melissa Purvis, Livestream Technician;
and Jo Elizabeth M. Wheat, CVR-CM/M-GNSC

COURT REPORTER: Kathleen R. Tackett, CVR-M

1 THEREUPON came,

2 DYLAN W. D'ASCENDIS,

3 JOHN J. SPANOS,

4 re-called as witnesses, who, having been previously duly

5 affirmed, were examined and testified further as

6 follows:

7 CROSS-EXAMINATION

8 BY MS. LYBARKER:

9 Q I am Carri Grube Lybarker, the Administrator and
10 Consumer Advocate over at the Department of
11 Consumer Affairs. Good morning, gentleman.

12 A (SPANOS) Good morning.

13 A (D'ASCENDIS) Good morning.

14 Q My questions today are going to be focused on your
15 testimony, Mr. D'Ascendis.

16 I'd like to first go to your testimony
17 regarding non-price regulated proxy group selection
18 criteria. So referring to your direct testimony on
19 Page 32, Lines 12-14, you state: " . . . non-price
20 regulated firms operating in the competitive
21 marketplace make an excellent proxy if they are
22 comparable in total risk to the Utility Proxy Group
23 being used to estimate the cost of common equity."

24 Correct?

25 A (D'ASCENDIS) That's right.

1 Q Starting on Line 17 of Page 32 of your direct
2 testimony, you start to explain how you selected
3 your non-price regulated proxy group, correct?

4 A (D'ASCENDIS) That's right.

5 Q On Page 33, Lines 3 through 10 of your direct
6 testimony, you list the four criteria you used to
7 select the companies in your non-price regulated
8 proxy group, correct?

9 A (D'ASCENDIS) That's right.

10 Q Schedule DWD-6 shows a list of 14 companies in your
11 non-price regulated proxy group, correct? And I'll
12 put that up here on the ELMO.

13 A (D'ASCENDIS) That's right.

14 MS. LYBARKER: (To Mr. Erskine) Can I get the
15 ELMO for them, the ELMO, please? Thank you.

16 Q And you'll have to -- excuse me, my allergies are
17 getting the best of me this morning, as well.

18 MS. LYBARKER: That's fine.

19 Q So this is Page 3 of Schedule DWD-6. But to
20 confirm, on Page 32, Line 22 and Page 33 Line 16 of
21 your direct testimony, you state there are 11
22 companies in this proxy group, but, in fact, there
23 are 14, correct?

24 A (D'ASCENDIS) Sorry about that.

25 Q I just wanted to verify. So if we apply the

1 criteria that you list on Page 33, those four
2 items, we will obtain the 14 companies you show on
3 this schedule DWD-6, correct?

4 A (D'ASCENDIS) That's right.

5 Q So on Page 71, Line 14 of your rebuttal testimony,
6 you state that you received all the data used to
7 select the non-price regulated proxy group quote
8 "directly from Value Line," correct?

9 A (D'ASCENDIS) Hold on for a second.

10 Q Sure.

11 A (D'ASCENIS) You said what page?

12 Q Page 71, Line 14 of rebuttal testimony.

13 A (D'ASCENDIS) Yes.

14 Q Okay. So you obtained the numbers in Items 2, 3,
15 and 4, the Unadjusted Beta, Residual Standard Error
16 of the Regression, and Standard Deviation of Beta
17 directly from Value Line?

18 A (D'ASCENDIS) That's right.

19 Q So would it surprise you to know that when
20 searching for the term "standard error" within the
21 entire Value Line website, whether logged in or
22 with a subscription, it yields no results?

23 A (D'ASCENDIS) No. It doesn't. As I plainly state
24 in DWD-6, it says "Source of Information, Value
25 Line Proprietary Database," where is it? Page 2 of

1 3 and Page 3 of 3, "Value Line Proprietary
2 Database." We purchased it from Value Line, not --
3 not -- and it doesn't -- it's not included in the
4 subscription to Value Line. It's not included in
5 any type of -- on any of the Value Line sheets.

6 Q So is there any manner for other experts to be able
7 to access the data?

8 A (D'ASCENDIS) They could ask for it and I'd -- I'd
9 give it to them.

10 Q Okay. Is any information regarding the underlying
11 data that you have in your proprietary database
12 included in your testimony?

13 A (D'ASCENDIS) No. And they -- they don't give me
14 the data behind it. They just give me the raw
15 numbers. I -- it's -- it's not unlike what Mr.
16 Rothschild did with his beta calculations. All of
17 them were hard-coded and I couldn't figure a lot of
18 the data from his.

19 So a lot of this stuff comes hard-coded and
20 the -- and the -- and the witnesses have to deal
21 with what -- what the -- you know, the vagaries of
22 the data that they receive from the opposing
23 witnesses.

24 Q So are you familiar with Value Line's formula for
25 the adjustment of beta?

1 A (D'ASCENDIS) Yes.

2 Q And did you use the Value Line formula?

3 A (D'ASCENDIS) No. I took it from -- I took it from
4 Value Line.

5 Q So you didn't use the Value Line formula. You got
6 the information direct?

7 A (D'ASCENDIS) Right. I -- you said that you're
8 familiar with it.

9 I said "Yes."

10 And then you said, "Did you use it?"

11 I said "No."

12 Q Okay. Did you perform a regression analysis?

13 A (D'ASCENDIS) No. Like I said, all the data that I
14 got was from Value Line's proprietary database.

15 Q When you apply the first two of your four criteria,
16 do you recall how many companies were on your list?

17 A (D'ASCENDIS) No.

18 Q Would it surprise you that when Mr. Rothschild did
19 so, he obtained a list of approximately 1200
20 companies?

21 A (D'ASCENDIS) I don't know how he could get there,
22 because he didn't have the data. So we could be
23 working from two different data sets. Like I said,
24 I ran those screens and ended up with 14.

25 Q Do you agree that in order to be able to compare

1 the betas of two companies, it is important that
2 they be calculated using the same methodology,
3 including the same time period, the same return
4 interval, the same return frequency, and the same
5 index?

6 A (D'ASCENDIS) Say that again.

7 Q Do you agree that in order to be able to compare
8 the betas of two companies, it's important that
9 they be calculated using the same methodology,
10 including the same time period, the same return
11 interval, the same return frequency, and the same
12 index?

13 A (D'ASCENDIS) Time interval is a little different.
14 Like for -- if you're -- if you're in a -- an
15 electric case, right, and if -- and if you're using
16 the Value Line sheets, they -- they get released
17 every three months. And the eastern, western, and
18 central are from different periods. So, even
19 though one could be one or two weeks later than the
20 other one, they're still comparable. Now, you
21 know, comparing betas from last year to this year
22 would be an issue, but, you know, a couple of weeks
23 I don't think is an issue.

24 Q Okay. Going now towards standard deviation. Would
25 you agree that the term "standard deviation" can

1 refer to at least two or three different concepts
2 when applied to a list of the betas of a group of
3 companies, based on regression, their stock prices
4 versus an index?

5 A (D'ASCENDIS) None of -- none of this matters to at
6 least the selection of my companies because it was
7 -- it was taken from a proprietary database.

8 Q So, regarding the Column 4, the Standard Deviation
9 of Beta in Schedule DWD-6, it was solely calculated
10 through that proprietary database? Not through any
11 efforts or work papers of your own?

12 A (D'ASCENDIS) No. I was given -- I -- and -- and
13 it's not like Value Line is some "fly-by-night"
14 company. They're -- they're an investor-
15 influencing publication. So any type to -- any --
16 any way to, you know, question these numbers,
17 they're from Value Line. I didn't touch them at
18 all. So no subjectivity on my part was -- was
19 taken in -- in calculating any of these numbers in
20 -- in 1, 2, 3 and 4.

21 Q I think the issue that we have is the sake of
22 transparency and clarity, that it would've been
23 helpful to be able for our experts to -- to look at
24 the information that you had to determine the --
25 the credibility of the numbers. Do you think that

1 that would provide a clarity and transparency if we
2 had some more information in your testimony
3 regarding that?

4 A (D'ASCENDIS) I think that might be what discovery
5 is for.

6 Q So since you listed the standard deviation of beta
7 value for each company in Schedule DWD-6, I'm
8 assuming this does not refer to the standard
9 deviation of the unadjusted betas of the entire
10 proxy group; is that correct?

11 A (D'ASCENDIS) That's right.

12 Q So do the values in the column labeled "Standard
13 Deviation of Beta," correspond to the standard
14 deviation of historical returns provided by Value
15 Line for historical periods of three, five, or ten
16 years, just like the betas they provide?

17 A (D'ASCENDIS) I don't know.

18 Q So because the information came directly from Value
19 Line, you do not have a formula for that column; is
20 that correct?

21 A (D'ASCENDIS) Everything is hard-coded as values.
22 And if you'd like a late-filed exhibit, I'd be
23 happy to give it to you.

24 Q Thank you. One moment. I'm making sure we go
25 forward correct. I don't want to have you repeat

1 anything you've already said.

2 A (D'ASCENDIS) It's okay.

3 Q When you say "95.5 percent of the distribution" in
4 Page 1 of Schedule DWD-6, exactly which
5 distribution are you referring to?

6 A (D'ASCENDIS) It just a mathematical fact that two
7 standard deviations cover 90 -- 95.5 percent of --
8 of the -- of the population.

9 Q Can you please explain why you chose two standard
10 deviations on either side of the mean?

11 A (D'ASCENDIS) Just to -- just to have a
12 representative range of the -- of the -- of the
13 average of the proxy group.

14 Q So does this come back to the concept of sampling
15 error for each company since you can talk about the
16 respective standard deviation values for each
17 company?

18 A (D'ASCENDIS) Repeat that again.

19 Q Does this come back to the concept of sampling
20 error for each company since you can talk about
21 respective standard deviation values for each
22 company?

23 A (D'ASCENDIS) It's more -- it's more to get a
24 representative number of companies than -- than
25 anything. Because if -- if I -- I know back --

1 back -- if, let's say, if two standard deviations
2 only came up with three companies and three
3 standard deviations came up with eight companies, I
4 would use three standard deviations. It depends on
5 the size of the proxy group companies or the size
6 of the group to make sure that you have enough to
7 come up with a representative amount of companies
8 to better -- comparable in total risk.

9 Q So as far as sampling errors -- so a sampling error
10 is a statistical error that occurs when an analyst
11 does not select a sample that represents the entire
12 population of data, and the results found in the
13 sample do not represent the results that would be
14 obtained from the entire population. Would you
15 agree with that statement?

16 A (D'ASCENDIS) Yes.

17 Q So in this case, the sample data consists of the
18 weekly returns over a period of five years that
19 were used for the 259 data points, I think, to be
20 exact, as you state on Page 1 of Schedule DWD-6,
21 correct?

22 A (D'ASCENDIS) Yes.

23 Q And what would the corresponding entire population
24 be?

25 A (D'ASCENDIS) Well, the entire population in the --

1 in the database is over 6,000 stocks.

2 Q Over 6,000, you said?

3 A (D'ASCENDIS) Yes.

4 Q So is calculating a historical beta simply
5 dependent on the time, horizon, and the frequency
6 and length of the returns? That is once you choose
7 those parameters for a ticker and a corresponding
8 index, any analyst should be able to calculate the
9 same exact value of beta?

10 A (D'ASCENDIS) Yes. Give or take and -- and in
11 Value Line they -- they adjust to the nearest 5 --
12 0.05.

13 Q So is it your position that in this case the over
14 6,000 items you mentioned constitute the entire
15 relevant population as opposed to the 259 of your
16 subset?

17 A (D'ASCENDIS) What?

18 Q Okay. Let me rephrase the question. So in this
19 case, the 259 data points that you utilized, do
20 they constitute the entire relevant population as
21 opposed to a sampling subset?

22 A (D'ASCENDIS) I think your 259's wrong.

23 Q And what number would you think it is?

24 A (D'ASCENDIS) It'd be 14 out of 6,000, right? If
25 you're talking about the group -- the subset of the

1 group that -- the subset of the group that of
2 6,000, which is comparable, and total risk to the
3 water utility proxy group, 14 out of 6,000 based on
4 the -- based on the selection criteria, which --
5 which is, you know, a -- the unadjusted beta is a
6 measure of systematic risk or market risk. And the
7 standard -- standard error of the regression is the
8 measure of the nonmarket risk. That equals total
9 risk and using those ranges, you get to 14 out of
10 6,000.

11 Q Okay. So let's talk more about that risk. So
12 looking at, again, Schedule DWD-6, Page 3, you
13 claim the non-price regulated proxy group is
14 comparable in risk to the utility group, correct?

15 A (D'ASCENDIS) That's right.

16 Q But the non-regulated proxy group has an average
17 unadjusted beta that is 25 percent higher than the
18 utility proxy group, correct?

19 A (D'ASCENDIS) That is correct, but you also got to
20 say that they passed -- they passed the criteria.
21 So I -- I know it's not equivalent, but it's
22 comparable, which is what we're looking for. And
23 that's the same type of principals that we talk
24 about in Hope and Bluefield, the comparable risk
25 where -- where, you know, this -- though -- even

1 the water proxy group isn't equivalent in risk to
2 Blue Granite and -- and me and Mr. Rothschild and,
3 to some extent, Mr. Parcell reflected that in size
4 adjustments or moving to the top of their range.
5 So if you're going to -- if you're going to say
6 that this group isn't exactly risky, yes. It's
7 comparable. It's not identical.

8 Q So if the non-price regulated proxy group is -- is
9 comparable in risk to the utility proxy group, why
10 do 12 out of the 14 companies have an unadjusted
11 beta that is higher than the average of the utility
12 proxy group, which is 0.48?

13 A (D'ASCENDIS) Like I said, they passed the ranges
14 and that's -- that's the criteria. And -- and this
15 isn't the first -- I'm not the only person who does
16 this type of thing. I know ORS in the past, back
17 as far as I can remember -- not the same exact but
18 definitely had non-risk -- or non-price regulated
19 companies as a measure. And -- and they have
20 consistently approved either mine or Dr. Carlisle's
21 in the past. And the -- and -- and this -- and
22 this Commission is -- is not a stranger and -- and
23 does not share your view or Mr. -- Mr. Rothschild's
24 view that these companies are not -- not worth
25 anything when it comes to the cost of equity for

1 this water company.

2 Q Were you aware this is the first time that Mr.
3 Rothschild has presented testimony such as this
4 before this Commission?

5 A (D'ASCENDIS) Yeah. I -- I -- I -- I read his
6 testimony, and I find it, you know -- is it -- I'll
7 -- I'll -- I'll digress.

8 Q Thank you. Why are there three versions of
9 Schedule DWD-9R in your rebuttal?

10 A (D'ASCENDIS) Oh. It's just the -- it's the three
11 proxy groups that Mr. Parcell used.

12 Q Thank you. Now turning to the cost of equity. So
13 Mr. Rothschild cites the VIX Index in his direct
14 testimony, correct?

15 A (D'ASCENDIS) Yes.

16 Q He cites the VIX at 13.78, correct?

17 A D'ASCENDIS) Know what it is today? Thirty.
18 That's why it's irrelevant to talk about VIX
19 because it's a 30-day measure. And if -- and if I
20 did think it was something to hang my hat on for --
21 for a cost of equity, I'd be doing cartwheels right
22 now, but it's not.

23 Q So the VIX is a measure of investors' expectations
24 for the volatility of the stock market for the next
25 30 days, correct?

1 A (D'ASCENDIS) For 30 days. Yeah.

2 Q Okay. On Pages 53, lines 4 through 6 of your
3 rebuttal testimony, you state -- and I'll wait for
4 you to get there -- Pages 53 and Line 4 through 6.
5 You state, "Because the cost of capital is a long-
6 term concept, i.e. perpetuity in the case of the
7 DCF model, the VIX is irrelevant to the cost of
8 common equity in this proceeding," correct?

9 A (D'ASCENDIS) And I think I just said that.

10 Q Does Mr. Rothschild use this 13.78 percent in his
11 cost-of-equity calculations?

12 A (D'ASCENDIS) He doesn't.

13 Q Thank you. On Page 53, Lines 12 through 15 of your
14 rebuttal testimony -- it's Lines 12 through 15 --
15 you state, "As of January 27th, 2020, for the term
16 structure, the expected level of the VIX in
17 December 2020 is 18.66 percent, which is
18 significantly higher than the 13.78 percent level
19 cited by Mr. Rothschild," correct?

20 A (D'ASCENDIS) That's right. And the -- and it's, I
21 think, around in the mid-20s now based on what
22 happened with the coronavirus. So even that -- and
23 I -- and I know Mr. Rothschild didn't rely on it,
24 but he did kind of imply that that means that
25 there's lower cost of equity going forward, which I

1 disagree with. But, like I said, I haven't used
2 this 18.66 either in my measurements but -- but
3 just to -- to show apples and oranges or apples to
4 apples that it's not -- even the long term, I don't
5 think is -- it's only one year, so . . .

6 Q So what implied volatility does Mr. Rothschild use
7 in his CAPM analysis?

8 A (D'ASCENDIS) I think it's in his direct testimony
9 or rebuttal testimony, isn't it?

10 Q In his surrebuttal on Page 23, Chart 1, it's 18.13
11 percent. Does that sound accurate?

12 A (D'ASCENDIS) Right. But that -- that is not --
13 that is -- implied volatility based on what?

14 Q Well, do you know the term structure that he
15 utilized?

16 A (D'ASCENDIS) Yes.

17 Q And what was that?

18 A (D'ASCENDIS) 18.66.

19 Q And for a term of about one year? Does that sound
20 correct?

21 A (D'ASCENDIS) That sounds right.

22 Q Okay. In your rebuttal, you are critical of Mr.
23 Rothschild's use of current market data to
24 determine cost of capital, correct?

25 A (D'ASCENDIS) That's right.

1 Q Is it fair to say that Mr. Rothschild believes
2 current capital markets are the best measure of
3 what investors expect future capital markets to be?
4 A (D'ASCENDIS) I think that's what he says.
5 Q Do you agree with his opinion?
6 A (D'ASCENDIS) I think you need to -- you need to
7 take into account expected capital markets as well.
8 Q So do you think current capital markets are just
9 one measure of what investors expect future capital
10 markets to be?
11 A (D'ASCENDIS) It's like I said, it's current --
12 current and expected capital market conditions.
13 Q So on Page 48, Line 11 of your rebuttal testimony.
14 A (D'ASCENDIS) Line 11?
15 Q Yes, sir. Page 48, Line 11. You state, "Investor
16 reaction to analysts' forecasts, whether they be
17 growth rate or interest rate forecasts, can be
18 likened to weather forecasts," correct?
19 A (D'ASCENDIS) That's right.
20 Q On that same page, on Lines 15 to 16, you state,
21 "When severe weather is forecasted, those expected
22 to be affected generally begin preparing by storing
23 supplies of food, batteries, candles, etc.,"
24 correct?
25 A (D'ASCENDIS) Yes.

1 Q So when analysts make interest rate forecasts, do
2 investors and homeowners prepare?

3 A (D'ASCENDIS) Investors would, yes.

4 Q And as far as homeowners preparing, I mean, let's
5 say a homeowner with an adjustable rate mortgage
6 has a 2 percent interest rate. If they see a
7 forecast with interest rates increasing to 5
8 percent in the next year or two, do you think they
9 would refinance now if they could?

10 A (D'ASCENDIS) No.

11 Q Someone with an adjustable rate mortgage, you don't
12 think, would refinance if it was going up, if they
13 saw a forecast?

14 A (D'ASCENDIS) If it's -- oh, I thought you were
15 talking about interest -- interest only. Yes.
16 They would -- they would refinance that.

17 Q Bond investors will also make preparations in the
18 form of buying or selling positions based on
19 interest rate forecasts as they become available,
20 correct?

21 A (D'ASCENDIS) Yes.

22 Q On Page 49, Lines 18 through 21 of your rebuttal
23 testimony --

24 A (D'ASCENDIS) Eighteen through 21?

25 Q Yes, sir. It states, "There are approximately 50

1 economists who contribute to 'Blue Chip' on which I
2 have relied in my common equity cost rate analysis.
3 To suggest that these economists be ignored by the
4 investment community is counter to the efficient
5 market hypothesis," correct?

6 A (D'ASCENDIS) That's right.

7 Q Then on Page 49, Lines 23 through 24 and Page 50,
8 Lines 1 through 2 of that rebuttal testimony, you
9 state, "Efficient market is one in which security
10 prices reflect all relevant information, all the
11 time with the implication that prices adjust
12 instantaneously to new information thus reflecting
13 the intrinsic fundamental economic value of a
14 security."

15 A (D'ASCENDIS) Yes. At that time, not in the
16 future.

17 Q So do you consider recently published interest rate
18 forecasts new and relevant information that should
19 be considered by investors in the stock market?

20 A (D'ASCENDIS) Yes. And -- and like I said in 49
21 and 50 or like Fama says in 49 and 50, they are
22 reflected in current prices, but that doesn't mean
23 that that's going to be the future price.

24 Q So current security prices reflect published
25 forecasts such as "Blue Chip's," correct?

1 A (D'ASCENDIS) That's right.

2 Q Just going one page forward on Page 51 of your
3 rebuttal testimony, Lines 9 through 16. You
4 created a chart using ROEs for electric and gas
5 companies, correct? Page 51.

6 A (D'ASCENDIS) That's right.

7 Q Why didn't you use ROEs for water companies for
8 that chart?

9 A (D'ASCENDIS) It's harder to find the -- the data.
10 The data isn't readily available.

11 Q Going back a few pages, on Page 43 of your rebuttal
12 testimony, Lines 3 through 5, you state that it's
13 Mr. Rothschild's ROE or that Mr. Rothschild's ROE
14 proposal, if it were adopted, that it would be the
15 smallest ROE in the country, correct?

16 A (D'ASCENDIS) Yes. As far I know.

17 Q And what information are you basing that on?

18 A (D'ASCENDIS) Experience and there are -- I think
19 there is -- there's -- the RRA has some --
20 Regulatory Research Associates. They -- they have
21 a limited amount of data about water companies, not
22 individuals, not going back as far as 2007 as of,
23 you know. If you're looking at -- what is it? --
24 Page 52. So the data -- the data on a Chart 3 that
25 shows that there's no -- there's -- there's no

1 relationship between credit spreads and rate of
2 return. They only have yearly -- yearly ROEs.
3 They don't have individual cases like the one I did
4 in Chart 3. So it doesn't really work out the way
5 that -- to include it, but they do have some annual
6 data that you can use. And as far as I'm concerned
7 and as far as I know -- what was it? 8.65 would be
8 the lowest in the country by far by 25 basis points
9 or so.

10 Q And this is based on your experience, correct?

11 A (D'ASCENIS) That's right.

12 Q So do you believe it would be the lowest ROR in the
13 country if Mr. Rothschild's were adopted?

14 A (D'ASCENDIS) Probably not ROR, no. I'm -- I'm
15 actually recommending -- at the top of my range is
16 an 8.12 ROR, so, no.

17 MS. LYBARKER: All right. I have no further
18 questions.

19 WITNESS D'ASCENDIS: Thank you.

20 MS. LYBARKER: Thank you, Mr. Chairman.

21 CHAIRMAN RANDALL: Thank you, ma'am. Town of
22 Irmo. Mr. Moore?

23 MR. MOORE: Thank you, Mr. Chairman.

24 CROSS-EXAMINATION

25 BY MR. MOORE:

1 Q. HAVE YOU PREPARED SCHEDULES TO ACCOMPANY YOUR
2 TESTIMONY?

3 A. Yes. I have prepared Exhibits LKM-1 through LKM-4. These exhibits present a
4 summary of my findings regarding the revenues and expenses under present and
5 proposed rates. My exhibits are based upon a modification of the electronic version of
6 Blue Granite's revenue requirements model.

7
8 **Summary and Recommendations**

9 Q. PLEASE SUMMARIZE THE RATE RELIEF REQUESTED BY BLUE
10 GRANITE IN ITS FILING.

11 A. On October 2, 2019 the Company filed its application seeking a combined water and
12 wastewater revenue increase of \$11,731,803. The Chart below presents a summary of
13 the proposed increases in each of the service categories.

Blue Granite Water Company Summary of Proposed Revenue Increases		
	Proposed Revenue Increase	Proposed Percentage Increase
Water Service Revenues - Territory 1	\$ 3,636,850	53.5%
Water Service Revenues - Territory 2	1,939,107	34.9%
Consolidated Sewer Service Revenues	6,155,846	55.7%
Total Operating Revenues	<u>\$11,731,803</u>	

14

15 In this filing, the Company is requesting that its rates be determined on the return on
16 rate base method. Accordingly, BGWC is seeking to earn an overall return of 8.36

1 We'll do that.

2 MR. WHITT: Okay. Thank you.

3 THE EXAMINATION BY MR. WHITT CONTINUES.

4 Q Keeping in mind the changes that -- that we know
5 that you have to your corrected direct testimony,
6 if I asked you to -- your same questions today,
7 would your answers be the same?

8 A (ROTHSCHILD) Yes.

9 Q Have you prepared a summary of your corrected
10 direct testimony?

11 A (ROTHSCHILD) Yes. I have.

12 Q Please give your summary at this time.

13 A (ROTHSCHILD) I am testifying on behalf of the
14 South Carolina Department of Consumer Affairs. My
15 direct testimony provides my recommendation to the
16 Public Service Commission of South Carolina
17 Commission regarding the appropriate cost of
18 equity, capital structure, and overall cost of
19 capital for Blue Granite Water Company. I
20 recommend an overall cost of capital, or a rate of
21 return, of 7.27 percent be used to calculate BGWC's
22 revenue requirement and, ultimately, its consumer
23 rates.

24 My rate of return recommendation is a weighted
25 average cost of the following two components: a

1 cost of equity (ROE) of 8.65 percent and cost of
2 debt of 5.73 percent. The cost weighting is my
3 recommended capital structure of 52.91 percent and
4 47.09 percent. BGWC's Witness, Dylan D'Ascendis,
5 recommends 7.86 percent to 8.12 percent rate of
6 return. He recommends a 9.75 percent to 10.25
7 percent cost of equity. We recommend the same cost
8 of debt, 5.73 percent, and capital structure
9 ratios: 52.91 percent equity and 47.09 percent
10 debt. Mr. D'Ascendis' rate of return
11 recommendation, if adopted, would require consumers
12 to pay .6 -- or \$600,000 to \$870,000 more annually
13 than if my recommendation was used to set rates.
14 My rate of return recommendation will allow BGWC to
15 raise capital on reasonable terms, while fulfilling
16 their obligation to provide safe and reliable
17 service. Mr. D'Ascendis' 9.75 percent to 10.25
18 percent cost of equity recommendation is above the
19 return expectations published by Charles -- Charles
20 Schwab's 6.5 percent and JP Morgan's 7.2 percent
21 for the overall US stock market which includes,
22 primarily, riskier, unregulated companies.

23 Greater return principles: My recommendations
24 satisfy the requirements of Hope and Bluefield that
25 regulated utility companies should have an

1 opportunity to earn a return commensurate with
2 returns on investments in other enterprises having
3 corresponding risks. I use current market prices,
4 e.g. stocks, bonds, options, as much as possible
5 because it measures investors' expectations
6 directly instead of relying solely on historical
7 data and analysts' forecasts. My market base cost
8 of equity recommendation, 8.65 percent, is superior
9 to a cost of equity recommendation based on
10 historical data, non-market data, because among
11 other reasons, the cost of equity that BGWC has to
12 pay investors is based on capital markets.

13 Cost of equity in today's financial market:
14 Current capital market data, e.g. high stock
15 prices, low interest rates, low credit spreads, low
16 volatility expectations, high market to book
17 ratios, indicates that the cost of equity for
18 utility companies is decreasing, and my 8.65
19 percent return on equity for investing in a
20 regulated utility company is sufficient to raise
21 capital. Rates should be set in this proceeding
22 based on the current low cost of capital
23 environment and reevaluated should conditions
24 change in the future.

25 Cost of equity calculations: To arrive at my

1 recommendations, I applied the following three
2 models to a proxy group of six publicly traded
3 water companies referred to as "water proxy group."
4 One: Constant growth discounted cashflow model,
5 DCF. Two: Non-constant growth DCF model. Three:
6 Capital asset pricing model, CAPM. My DCF model is
7 used by financial institutions -- JP Morgan Chase -
8 - and recommended by leading financial textbooks -
9 - "Principles of Corporate Finance." My CAPM is
10 based on methodologies used by Value Line, the
11 Chicago Board of Options Exchange, CBOE, and
12 published peer reviewed academic journals, e.g.
13 "The Review of Financial Studies."

14 I used the sustainable growth form of the DCF
15 model, as recommended by leading textbooks, to
16 calculate the cost of equity for regulated utility
17 companies because it is more reliable than
18 mechanically adding an analyst earnings per share
19 growth rate to a dividend yield. This sustainable
20 growth rate maintains the mathematical relationship
21 between earnings, dividends, book value, and stock
22 price which must be respected. The non-constant
23 growth form of the DCF model determines the return
24 on investment expected by investors based on an
25 estimate of each separate annual cashflow the

1 more unlikely. Therefore, Mr. D'Ascendis' CAPM
2 results are unreliable and significantly overstate
3 BGWC's cost of equity based on market data.

4 Risk adjustment: Mr. D'Ascendis' 0.5 percent
5 premium adder for the small size of BGWC's relative
6 to the average capitalization of the water proxy
7 group is not justifiable. Mr. D'Ascendis states
8 that "size has a bearing on business risk" because
9 they are "less able to cope with significant events
10 that affect sales, revenues, and earnings." Mr.
11 D'Ascendis' recommendation that BGWC's cost of
12 equity should be increased by 0.5 percent to
13 account for its size is likely excessive. With
14 that said, my 8.65 percent cost of equity
15 recommendation is on the high end of results to
16 account for the possibility that BGWC's small size
17 impacts the return expectations required by
18 investors in their market base cost of equity.

19 Conclusion: Based on the evidence presented
20 in my testimony, I conclude that the cost of equity
21 allowed for the company should be 8.65 percent with
22 an overall cost of capital of 7.27 percent. See
23 Table 1. My recommendation satisfies the
24 requirements of Hope and Bluefield that regulated
25 utility companies should have an opportunity to

1 earn a return commensurate with returns on
2 investments in other enterprises having
3 corresponding risks. Mr. D'Ascendis' cost of
4 equity recommendation of 9.75 to 10.25 percent is
5 unreasonably high, primarily because it is based in
6 part on model results applied to a group of 14
7 companies, non-price -- non-price regulated proxy
8 group that are riskier than water utilities. His
9 -- his constant growth DCF model produces a result
10 of 8.91 percent which on the high side of -- which
11 is on the high side of reasonable. My 8.65 percent
12 cost of equity and an overall cost of capital rate
13 of return of 7.27 percent should be adopted because
14 it will allow BGWC to raise capital on reasonable
15 terms while fulfilling their obligation to provide
16 safe and reliable service.

17 MR. WHITT: Thank you. Mr. Chairman, we'd
18 move Mr. Rothschild's prefiled corrected
19 direct testimony into the record as if given
20 orally from the stand.

21 MR. BATEMAN: Mr. Chairman, may I ask a quick
22 question?

23 CHAIRMAN RANDALL: Sure.

24 MR. BATEMAN: Without having seen the
25 corrections, may I just confirm with Mr. Whitt

[Please note: The corrections noted herein reflect the testimony of the witness during the hearing in this matter.]

672.1

ELECTRONICALLY FILED - 2020 January 31 2:58 PM - SCPSC - Docket # 2019-290-WS - Page 1 of 81

BEFORE
THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

CORRECTED
DIRECT TESTIMONY
OF
AARON L. ROTHSCHILD

ON BEHALF OF
THE SOUTH CAROLINA DEPARTMENT OF CONSUMER AFFAIRS

Docket No. 2019-290-WS

CORRECTED

January 23, 2020

Contents

I.	STATEMENT OF QUALIFICATIONS	1
II.	SUMMARY OF CONCLUSIONS	2
III.	CAPITAL STRUCTURE, COST OF DEBT AND OVERALL RATE OF RETURN	10
IV.	COST OF EQUITY IN TODAY'S FINANCIAL MARKET	11
A.	Stocks Price Trends	13
B.	Interest Rates	14
C.	Low Credit Spreads	19
D.	Volatility Expectations	20
V.	COST OF EQUITY CALCULATION	22
A.	Overview	22
B.	Discounted Cash Flow	24
C.	Constant Growth Form of the DCF Model	26
D.	Non-Constant Growth Form of the DCF Model	34
E.	Capital Asset Pricing Model	39
VI.	ADDITIONAL COMMENTS ON MR. D'ASCENDIS' TESTIMONY	49
VII.	CONCLUSION	73

I. STATEMENT OF QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.

A. My name is Aaron L. Rothschild. My title is President and my business address is 15 Lake Road, Ridgefield, CT.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am President of Rothschild Financial Consulting.

Q. PLEASE STATE YOUR EDUCATIONAL ACHIEVEMENTS AND PROFESSIONAL DESIGNATIONS?

A. I have a B.A. (1994) degree from Clark University in mathematics and an M.B.A. (1996) from Vanderbilt University.

Q. PLEASE DESCRIBE YOUR BUSINESS EXPERIENCE.

A. I provided financial analysis in the telecom industry in the United States and Asia Pacific from 1996 to 2001, investment banking consulting in New York, complex systems science research regarding the power sector at an independent research institute and I have prepared rate of return testimonies since 2002. My business experience includes providing expert witness services to the California Public Advocates Office to evaluate the financial health, basic operation, wildfire cost recovery and organizational culture/governance of gas and electric utilities (I.15-08-019), including evaluating Pacific Gas and Electric bankruptcy restructuring plans . See Exhibit ALR-1 for my resume.

1 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION, OR**
2 **OTHER STATE COMMISSIONS? IF SO, WHICH COMMISSIONS?**

3 **A.** I have testified in over 50 cost of capital proceedings before the following state
4 commissions: California, Colorado, Connecticut, Delaware, Florida, New Jersey,
5 Maryland, North Dakota, Pennsylvania and Vermont. See Exhibit ALR-1 for the list of
6 dockets for each of my testimonies.

7 **Q. ON WHOSE BEHALF ARE YOU PROVIDING THIS TESTIMONY?**

8 **A.** South Carolina Department of Consumer Affairs.

9 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS**
10 **PROCEEDING?**

11 **A.** The purpose of my testimony is to provide my recommendations to the Public Service
12 Commission of South Carolina ("Commission") regarding the appropriate cost of equity,
13 capital structure and overall cost of capital for Blue Granite Water Company ("BGWC").

14 **II. SUMMARY OF CONCLUSIONS**

15 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

16 **A.** I recommend the following for BGWC for its wastewater operations:

- 17 • An overall cost of capital of 7.27%
- 18 • A cost of equity of 8.65%
- 19 • A capital structure containing 52.91% common equity and 47.09% debt
- 20 • A debt cost rate of 5.73%

TABLE 1: ALR RECOMMENDATION - BLUE GRANITE WATER COMPANY
Overall Cost of Capital

	Capital Structure Ratios	Cost Rate	Weighted Cost Rate
Long-Term Debt	47.09%	5.73%	2.70%
Common Equity	52.91%	8.65%	4.58%
	100.0%		7.27%

Exhibit ALR 1B

Q. PLEASE COMPARE YOUR COST OF CAPITAL RECOMMENDATIONS TO BGWC'S REQUESTED COST OF CAPITAL?

A. The primary reasons Mr. D'Ascendis and I recommend a different cost of equity for BGWC is because he includes a group of 14 "non-price regulated" companies in his analysis. I do not include these 14 companies in my cost of equity calculations because my analysis (See Section IV) reveals they are not comparable in total risk to water utilities, as Mr. D'Ascendis claims. In particular, these non-price regulated companies are not comparable to the water utilities we use in our cost of equity calculations¹. In fact, my analysis shows that the non-price regulated companies are significantly riskier than the 6 water utilities.

Mr. D'Ascendis' cost of equity recommendation would be 9.8%-10.3%², if based on the 6 water companies exclusively.

¹ I use 5 of the 6 water companies used by Mr. D'Ascendis.

² D'Ascendis Corrected Direct Testimony, page 4, Table 2. 9.8% = average of 9.03%, 10.39% and 9.91%. 10.3% = 9.8% + 0.5% "Business Risk Adjustment".

As shown in Table 2 below, Mr. D'Ascendis and I recommend the same cost of debt (5.73%) and the same capital structure (common equity 52.91% and 47.09% debt). Our cost of equity recommendations are different, however. My 8.65% cost of equity recommendation results in a 7.27% overall rate of return. Mr. D'Ascendis' 10.2%-10.7% cost of equity recommendation results in an overall rate of return of 8.10%-8.36%.

Table 2: RECOMMENDATION COMPARISON - ROTHSCILD AND D'ASCENDIS

	Cost of Equity	Cost of Debt	Common Equity %	Debt %	Rate of Return
Rothschild	8.65%	5.73%	52.91%	47.09%	7.27%
D'Ascendis	10.2% - 10.7%	5.73%	52.91%	47.09%	8.10%-8.36%

As shown in Table 3 below, if my 8.65% cost of equity is used to set rates for BGWC the rate of return portion of the revenue requirement will be about \$6.7 million. On the other hand, if Mr. D'Ascendis' 10.2% to 10.7% cost of equity recommendation is used to set rates the annual revenue requirement will be between about \$7.6 million and \$7.9 million. If Mr. D'Ascendis' rate of return recommendations are adopted instead of mine consumers will pay between \$0.84 million and \$1.1 million more per year.

TABLE 3: ANNUAL REVENUE IMPACT COMPARISON - - ROTHSCHILD AND D'ASENDIS

	Rate of Return Portion of Rev Requirement	Difference D'Ascendis - Rothschild
Rothschild	\$ 6,766,646	
D'Ascendis		
10.2% cost of equity	\$ 7,611,424	\$ 844,779
10.7% cost of equity	\$ 7,883,771	\$ 1,117,125

Inputs:

Based on following inputs: Rate Base (Proposed)*	\$ 76,180,847
Federal income tax rate	21.0%
State income tax rate	5.0%

*Application of Blue Granite Water Company for Approval to Adjust Its Rate Schedules and Increase Rates
Schedule C, page 1 of 7

Q. PLEASE SUMMARIZE HOW YOU DETERMINED YOUR 8.65% COST OF EQUITY RECOMMENDATION.

A. To arrive at my recommendations, I applied the following three models to a proxy group of 6 publicly traded water companies ("Water Proxy Group"):

- Constant Growth Discounted Cash Flow Model ("DCF")
- Non-Constant Growth DCF Model
- Capital Asset Pricing Model ("CAPM")

My constant growth DCF model is used by major financial institutions. J.P. Morgan Chase uses the sustainable growth form of the DCF method, as I do, in its 2019 Long-Term Capital Market Assumptions publication³. *Principles of Corporate Finance*, a leading financial textbook used in business schools around the world, recommends using the very

³ 23rd Annual Edition, Long-Term Capital Market Assumptions - Time-tested projections to build stronger portfolios, pp. 62-63.

1 same method I use to calculate the cost of equity for regulated energy utility companies⁴.
2 My CAPM is based on methodologies used by Value Line, the Chicago Board of Options
3 Exchange (CBOE) and published in peer-reviewed academic journals (e.g. The Review of
4 Financial Studies).

5 I have determined that the cost of equity for the average company in the Water
6 Proxy Group is 8.75%⁵. I recommend a 8.65%⁶ cost of equity for BGWC because it has
7 less financial risk than the companies in my Water Group because it has more equity in its
8 capital structure. This 8.75% result is above the average of the high-end results of my three
9 cost of equity models). As shown in Table 4 below, the high-end results of my three cost
10 of equity models range between 6.96% and 9.68%, averaging 8.75%. The low-end results
11 of my three cost of equity models range between 5.72% and 8.34%, averaging 7.46%.

⁴ Brealey, Myers, and Allen (2017), Principles of Corporate Finance, 12th Edition, McGraw-Hill Irwin, New York, page 86-87

⁵ Exhibit ALR 2.

⁶ Ibid.

TABLE 4: Cost of Equity Model Results

	Low	High
DCF - CONSTANT GROWTH	8.34%	8.76%
DCF - NON-CONSTANT GROWTH	5.72%	6.96%
CAPM		
Risk Free Rate - 3-Month T Bill	7.76%	9.59%
Risk Free Rate - 30-yr T Bond	8.02%	9.68%
Range	7.46%	8.75%

Source: Schedule ALR 2

(8.65% after financial risk adjustment) is equal to
My 8.75% cost of equity recommendation ~~is above~~ the average of my high-end
(8.75%)
results ~~(8.47%)~~ primarily because this Commission expressed concern in BGWC's 2017
rate case (Docket No. 2017-292-WS) regarding its size. In Order No. 2018-345(A), this
Commission stated "...there is no dispute that [BGWC] is significantly smaller than its
proxy group counterparts, and, therefore, it may present a higher risk."⁷

**Q. PLEASE PROVIDE A SUMMARY OF HOW MR. D'ASCENDIS' TESTIMONY
COMPARES TO YOUR TESTIMONY, MAJOR FINANCIAL INSTITUTIONS
AND RECENT DECISIONS IN WATER UTILITY RATE CASES YOU HAVE
BEEN INVOLVED IN.**

A. My direct testimony explains that Mr. D'Ascendis' 10.20 – 10.70% recommendation is
above (1) return expectations indicated by market data (e.g. stocks, bonds, options), (2)

⁷ Page 14.

1 return expectations published by major financial institutions, and (3) allowed returns in
2 water utility rate cases in which I have filed testimonies.

3 The following two components of our analyses led to our different cost of equity
4 recommendations:

- 5 1. Mr. D'Ascendis cost of equity recommendation (10.20% – 10.70%) is based, in
6 part, on the results of applying his cost of equity models to non-utility companies
7 (14 Non-Price Regulated Companies). Both of us applied our cost of equity models
8 to ~~the same~~ 6 water utilities. My 8.65% recommendation is based only on ~~these~~ 6
9 water utility companies, however.
- 10 2. Mr. D'Ascendis concludes that investors expect stock returns over bonds (risk
11 premium) will be 10.03%. I calculated a risk premium of 9%.

12 Mr. D'Ascendis claims that his Non-Price Regulated Proxy Group is comparable
13 to the 6 water utility companies (Utility Proxy Group). They are not. Therefore, his
14 cost of equity results based on applying his cost of equity models to this group of non-
15 utilities should be removed from consideration. In BGWC's last rate case (Docket No.
16 2017-292-WS) this Commission found that "Mr. D'Ascendis' non-price regulated
17 proxy group more accurately reflects the total risk faced by price regulated utilities and
18 [BGWC]."⁸ I was not involved in those proceedings and I do not have an opinion on
19 this Commission's decision at that time. In this proceeding Mr. D'Ascendis' Non-Price
20 Regulated Proxy Group consists of a different group⁹ of companies. Additionally,
21 market conditions likely have changed, at least to some degree, since 2017. As

⁸ Docket No. 2017-292-WS – Order No. 2018-235(A), May 30, 2018, page 14.

⁹ Some of the companies are the same in both proxy groups.

discussed below (Section VI.), current stock and option price data indicate that the companies in Mr. D'Ascendis' Non-Price Regulated Proxy Group are significantly riskier.

As shown in Table 5 below, Mr. D'Ascendis' 10.20% to 10.70% cost of equity recommendation is considerably higher than return expectations (5.25-8.75%)¹⁰ published by major banks and brokerage houses.

TABLE 5: COST OF EQUITY COMPARISON		
BGWC Witness Recommendation (December 2019)	Nominal 10.20 - 10.70%	[1]
Charles Schwab - Long-term Market Returns (March 2018)		
U.S. Large Capitalization Stocks	6.50%	[2]
U.S. Small Capitalization Stocks	7.20%	[2]
J.P. Morgan Asset Management - Equity Long-Term Returns (2019)		
U.S Large Cap	5.25%	[3]
Selected Emerging Market	8.00 - 8.75%	[3]

Sources:

[1] Mr. D'Ascendis' Direct Testimony, page 4

[2] Charles Schwab - Why Market Returns May Be Lower in the Future, March 6, 2018.

[3] J.P. Morgan Asset Management - Long-Term Capital Market Assumptions, 2019 Annual Edition, page 65.

The return expectations published by Charles Schwab and J.P. Morgan are based on their own financial models. I provide the data shown in Table 5 to show that major financial institutions are telling their clients to expect lower returns on their investments than the cost of equity proposed by Mr. D'Ascendis. Charles Schwab and J.P. Morgan's published return expectations are for the overall stock market. Mr. D'Ascendis' cost of equity recommendation is for a regulated utility company. It is unlikely that investors would expect to earn a higher return on equity for a cost of service regulated utility company than the overall stock market.

¹⁰ Includes expected returns from selected emerging markets (8.00-8.75%).

1 Mr. D'Ascendis' 10.20% to 10.70% is not consistent with allowed returns in recent
2 proceedings I have testified in. In 2018 I testified on behalf of the Office of Consumer
3 Advocate (ORA)¹¹ in California's Water Cost of Capital Proceeding. On March 22, 2018
4 the California Public Utilities Commission authorized a return on equity (ROE) of between
5 8.90% and 9.20% for the following California Class A water utilities (Decision 18-03-
6 035):

- 7 • 9.20% - California Water Service Company (A17-04-001, 17-04-001);
- 8 • 9.20% - California American Water Company (A17-04-001, 17-04-002);
- 9 • 8.90% - Golden State Water Company (A17-04-001, 17-04-003);
- 10 • 8.90% - San Jose Water Company (A17-04-001, 17-04-006).¹²

11
12 **III. CAPITAL STRUCTURE, COST OF DEBT AND OVERALL RATE OF RETURN**

13 **Q. WHAT CAPITAL STRUCTURE DO YOU RECOMMEND AND WHY?**

14 **A.** I recommend using BGWC's requested capital structure consisting of 52.91% equity and
15 47.09% debt because it is consistent with capital structure ratios used by other regulated
16 water companies.

17
18

¹¹ Renamed the "Public Advocates Office" in 2019.

¹² CPUC Press release, CPUC SETS COST OF CAPITAL FOR LARGE WATER COMPANIES, March 22, 2018.

1 **IV. COST OF EQUITY IN TODAY'S FINANCIAL MARKET**

2 **Q. HOW DOES YOUR COST OF EQUITY RECOMMENDATION RELATE TO**
3 **THE CURRENT FINANCIAL MARKET?**

4 **A.** The United States' economy has been experiencing high stock prices, low unemployment,
5 reasonable global growth, low bond yields, and low inflation expectations. According to a
6 recent J.P. Morgan Asset Management report, "[t]his S&P bull market is the longest on
7 record, with trough-to-peak gains almost twice the bull market average of the last 50
8 years..."¹³ These favorable economic conditions have led to high market-to-book ratios for
9 utility stocks which indicates the cost of equity for utility companies is decreasing. Rates
10 should be set in this proceeding based on the current low cost of capital environment and
11 re-evaluated should conditions change in the future. Since the beginning of 2018, national
12 trade policy has added some risks to companies with exposure to international markets.
13 However, regulated water companies have limited exposure to the adverse effects of a
14 possible trade war. In fact, regulated water companies present an opportunity for investors
15 looking for a way to shed trade policy risk.

16 The current capital markets indicate that an 8.65% return on equity for investing in a
17 regulated utility company is sufficient to raise capital. Interest rates remain low by
18 historical standards (see Chart 5 on page 20) and yield spreads are low (see Chart 6 on page
19 21). Lower than average yield spreads indicate a cost of equity lower than the historical
20 average. It is important to consider the results of my cost of equity models (e.g. DCF and

¹³ J.P. Morgan Asset Management – Long-Term Capital Market Assumptions, 2019 Annual Edition, page 6-.

1 CAPM) in the context of current financial market conditions as follows:

- 2
- 3 1. **Stocks are expensive.** As the S&P 500, Dow Jones Industrial Average and other
4 stock indices increase, investors are paying more for the same earnings, including
5 for utility stocks, than the average of the past 10 years,¹⁴ indicating that the cost of
6 equity is lower than the historical average.
- 7 2. **Interest rates are low.** Interest rates are near historical lows (see Chart 3) and the
8 Federal Reserve cut interest rates on July 31, 2019. The market expected this rate
9 cut. In fact, investors expect there is a chance of another rate cut in 2020. Futures
10 market data indicates that market prices reflect investor expectations regarding
11 Federal Reserve policy and, therefore, there is no need to use Blue Chip interest
12 rate forecasts as a proxy for the risk-free rate in a CAPM as BGWC witness has
13 done.
- 14 3. **Credit spreads are low.** The spread between the yield investors demand to
15 purchase U.S. Corporate Bonds and U.S. Treasury bonds (see Chart 6) remains at
16 near all-time lows since the last financial crisis of 2008/2009. Low credit spreads
17 support a cost of equity as low, or lower, than at any other time since the financial
18 crisis.
- 19 4. **Volatility expectations.** As of December 31, 2019, the Market Volatility
20 Index("VIX") is at relatively low levels. The VIX is a market indicator that allows
21 us to see what investors expect volatility to be in the future.

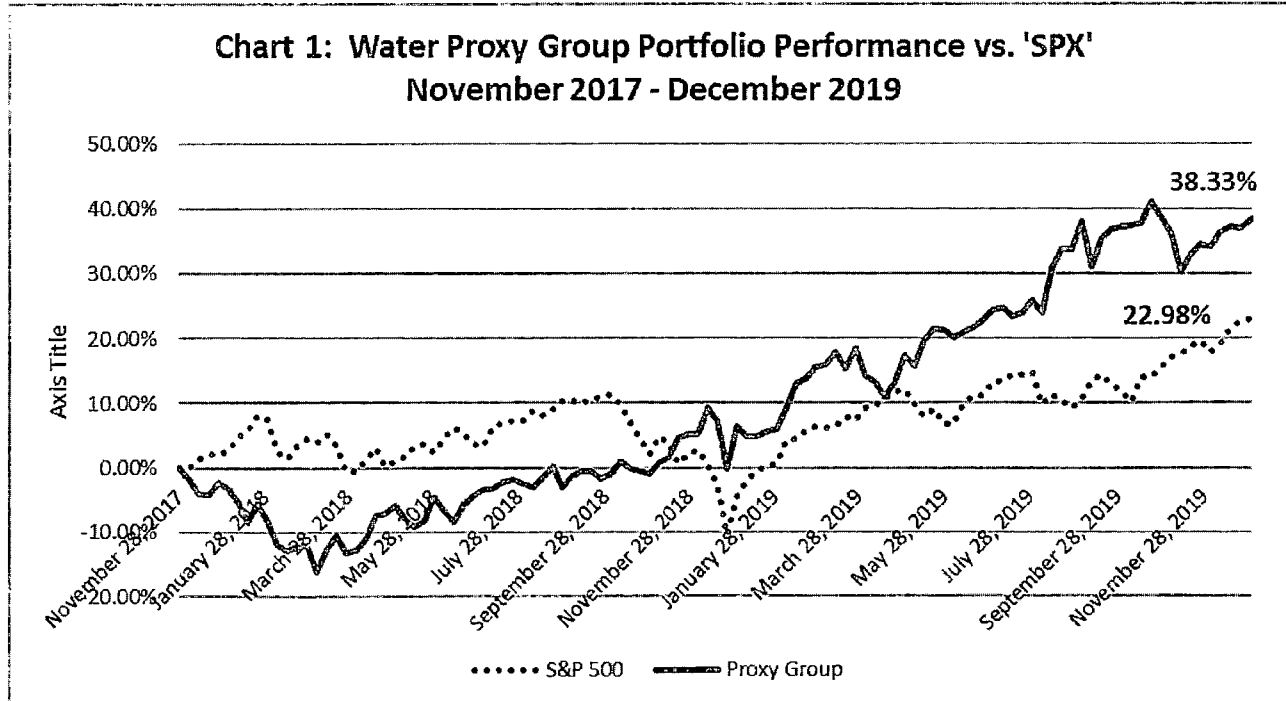
¹⁴ As of December 31, 2019 the S&P 500 has a Price-to-earnings ratio (over 24) nearly twice the average (15.70) since 1880.

As explained below, these factors indicate the cost of equity remains at historically low levels.

A. Stocks Price Trends

Q. WHAT, IF ANYTHING, DOES THE STOCK MARKET DATA INDICATE WITH REGARD TO THE COST OF EQUITY?

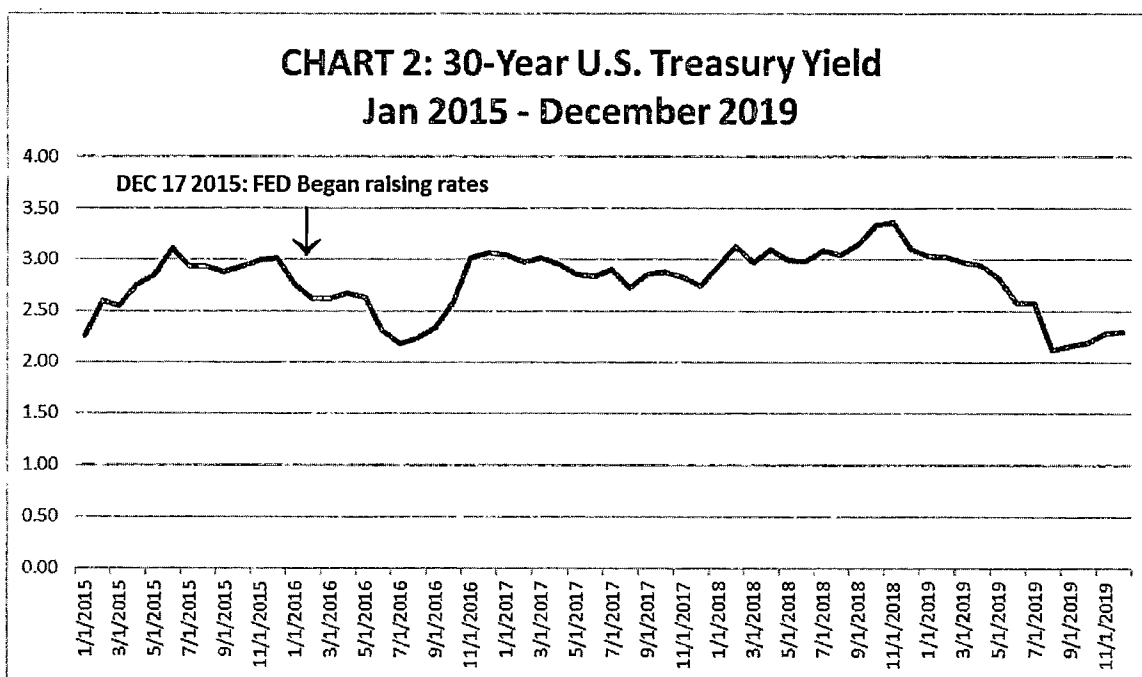
A. As stock prices have increased significantly in recent years, the price-to-earnings ratios have increased as well. This indicates that the cost of equity may be decreasing along with the higher stock prices. As shown in Chart 1 below, stock prices for the S&P 500 and the Water Proxy Group have increased significantly in the past four plus years since BGWC filed their last rate case in 2017. The Water Proxy Group has increased by 38.33% while the S&P 500 has increased by 22.98%.



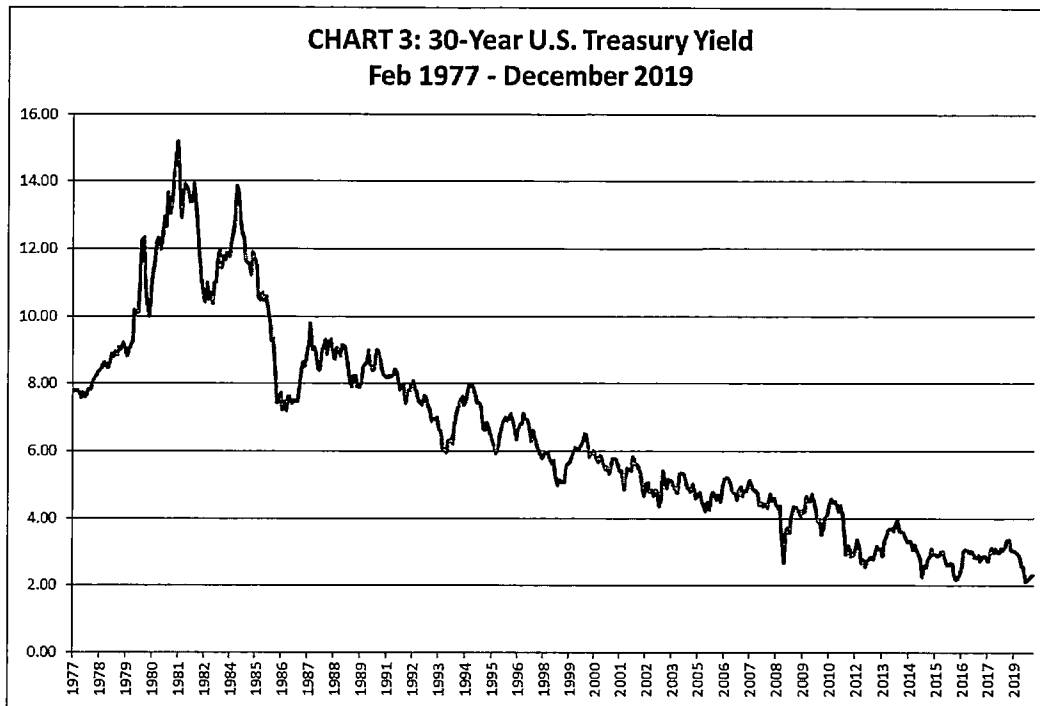
B. Interest Rates

Q. DO INVESTORS EXPECT LONG TERM U.S. GOVERNMENT BOND YIELDS TO STAY AT THESE LOW LEVELS?

A. Yes. Despite raising the federal funds rate nine times since 2015, yields on long-term U.S. government bonds (2.39% as of December 31, 2019) have not increased since the Federal Reserve began raising rates in December 2015. See Chart 2 below.



As shown in Chart 3 below, yields on 30-year U.S. Treasuries remain low by historical measures:



Q. CAN YOU PLEASE PUT THE CURRENT INTEREST RATE ON 30-YEAR U.S. TREASURY BONDS INTO HISTORICAL PERSPECTIVE?

A. Chart 3 above shows that the yield on 30-year U.S. Treasury bonds has been in a long-term downward trend since the very early 1980's when the annual yield peaked just below 14%. As of December 31, 2019, the yield on 30-year Treasury bonds remains at the historically low yield of 2.39% that has persisted since the middle of 2015.

Q. PLEASE COMMENT ON HOW RECENT ACTION TAKEN BY THE FEDERAL RESERVE TO RAISE THE FEDERAL FUNDS RATE RELATES TO THE BOND YIELDS SHOWN IN CHARTS 4 AND 5?

A. The yields on 30-year U.S. Treasury bonds are market-based and therefore reflect investors' expectations. Since bond prices and yields are inversely related, an investor who expected long-term interest rates to increase soon would not purchase 30-year U.S.

1 Treasuries because they would lose money. In a liquid market like those for 30-year U.S.
2 Treasury bonds, the yield reflects interest rate expectations of the marketplace. The current
3 yield on 30-year U.S. Treasury bonds is based upon a market with investors who are aware
4 of the comments by the Federal Reserve. In March 2019, the Board of Governors of the
5 Federal Reserve voted to maintain the target federal funds rate at 2.25 - 2.50%. The
6 Committee stated the following:

7 In light of global economic and financial developments and muted inflation
8 pressures, the Committee will be patient...¹⁵
9

10 Recent Fed-funds futures indicated that investors believed the Federal Reserve may
11 cut rates in 2020.

12 It is important to recognize that current long-term interest rates represent a direct
13 observation of investor expectations and there is no need to use "expert" forecasts such as
14 Blue Chip to determine the appropriate risk-free rate to use in a CAPM analysis or any
15 other cost of equity calculations.

16 **Q. DO YOU KNOW WHAT INTEREST RATES WILL BE IN THE FUTURE?**

17 **A.** No. As noted above, Jerome Powell, the Federal Reserve Board Chair, has said "we will
18 be patient," regarding changing the federal fund rate, but, he explained, that the Federal
19 Reserve is "always prepared to shift the stance of policy."¹⁶ He emphasized the uncertainty
20 surrounding forecasting the economy and the financial markets in a 2018 speech, stating:

21 You could imagine narratives in which that [forecast] would make sense, but
22 honestly, I wouldn't put too much on that.¹⁷

¹⁵ Federal Reserve Press Release, May 1, 2019.

¹⁶ "Powell says Fed 'will be patient' with monetary policy as it watches how economy performs", CNBC, January 4, 2019.

¹⁷ "Fed Raises Rates and Signals Faster Pace in Coming Years" The Wall Street Journal March 21, 2018.

1 Many economists and forecasters will continue to be quoted in the press prognosticating
2 on possible developments that are truly unpredictable. The Nobel Laureate Economist
3 Daniel Kahneman stated the following regarding forecasting:

4 It is wise to take admissions of uncertainty seriously, but declarations of high
5 confidence mainly tell you that an individual has constructed a coherent story in
6 his mind, not necessarily that the story is true.¹⁸

7
8 Kahneman also found that the trading industry is based on an “illusion of skill.”¹⁹

9 BGWC’s actual cost of capital is based on the current capital markets. More
10 fundamental to economic regulation, a market-based cost of equity is consistent with
11 ratemaking principles.²⁰

12 **Q. ARE YOU AWARE OF STUDIES THAT HAVE SHOWN THE CHALLENGES**
13 **OF FORECASTING FINANCIAL MARKETS?**

14 **A.** Yes. A Duke University study demonstrated that U.S. financial executives were over-
15 confident in their ability to predict financial markets. The Chief Financial Officers (CFOs)
16 in the study estimated the returns of Standard and Poor’s Index over the following year.
17 The 80% confidence interval provided by the CFOs contained only 33% of the realized
18 returns.²¹ The correlation between their estimates and the true value of returns was slightly
19 less than zero.

20 An additional study conducted by McKinsey and Company to determine the
21 accuracy of analysts’ earnings forecasts found that the analysts were overly optimistic,

¹⁸ Daniel Kahneman, *Thinking Fast and Slow* (New York: Farrar, Straus and Giroux, 2011): 212.

¹⁹ Id.

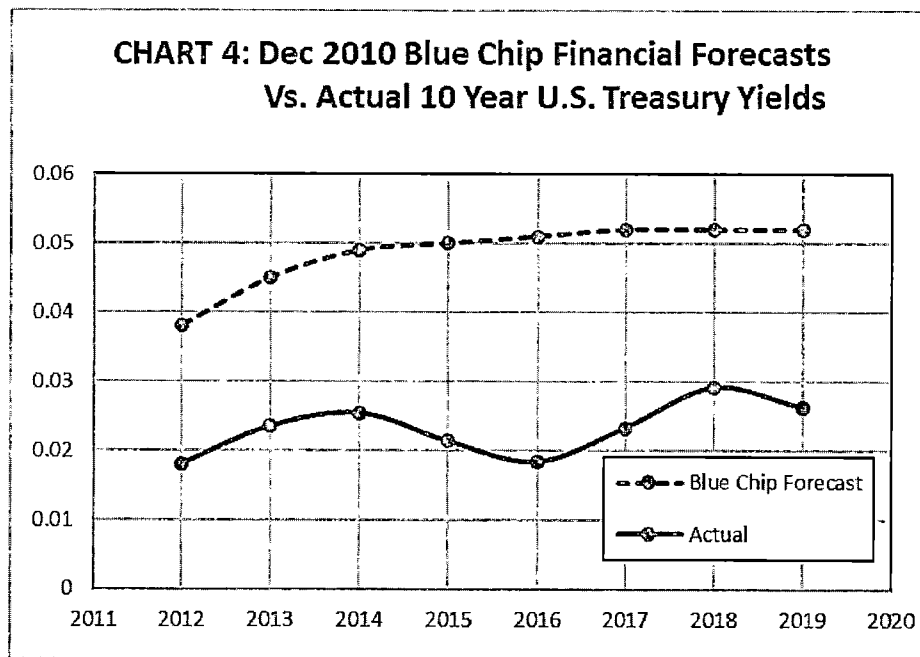
²⁰ The U.S. Supreme Court in the *Hope* and *Bluefield* cases, established that the cost of equity should support a utility’s credit, enable raising money, assure financial soundness and “be commensurate with returns on investments in other enterprises having corresponding risks.”

²¹ Itzhak Ben-David, John R. Graham, Campbell R. Harvey, *Managerial Miscalibration*, July 2010, page 30.

slow to revise their forecasts, and prone to making increasingly inaccurate forecasts during economic downturns. Moreover, as indicated by P/E (price/earnings) ratios, the investors' expectations were more conservative.²²

Q. HAVE THE BLUE CHIP INTEREST-RATE FORECASTS BEEN ACCURATE?

A. No. As Chart 4 below shows, Blue Chip Financial forecasted in 2012 that 10-Year U.S. Treasury bonds would be over 5% by 2018, when they are actually under 3%.



The time covered in Chart 4 was chosen to provide a concrete example. Blue Chip's interest rate forecasts have been persistently inaccurate for decades. A recent paper published by the Congressional Budget Office determined Blue Chip consensus forecasts

²² Marc H. Goedhart, Rishi Raj and Abhishek Saxena, *Equity Analysts: Still too bullish*, Spring 2010, page 14.

1 exhibited “significant positive bias” between 1984 and 2012 and “have become more
2 biased and less accurate over time.”²³

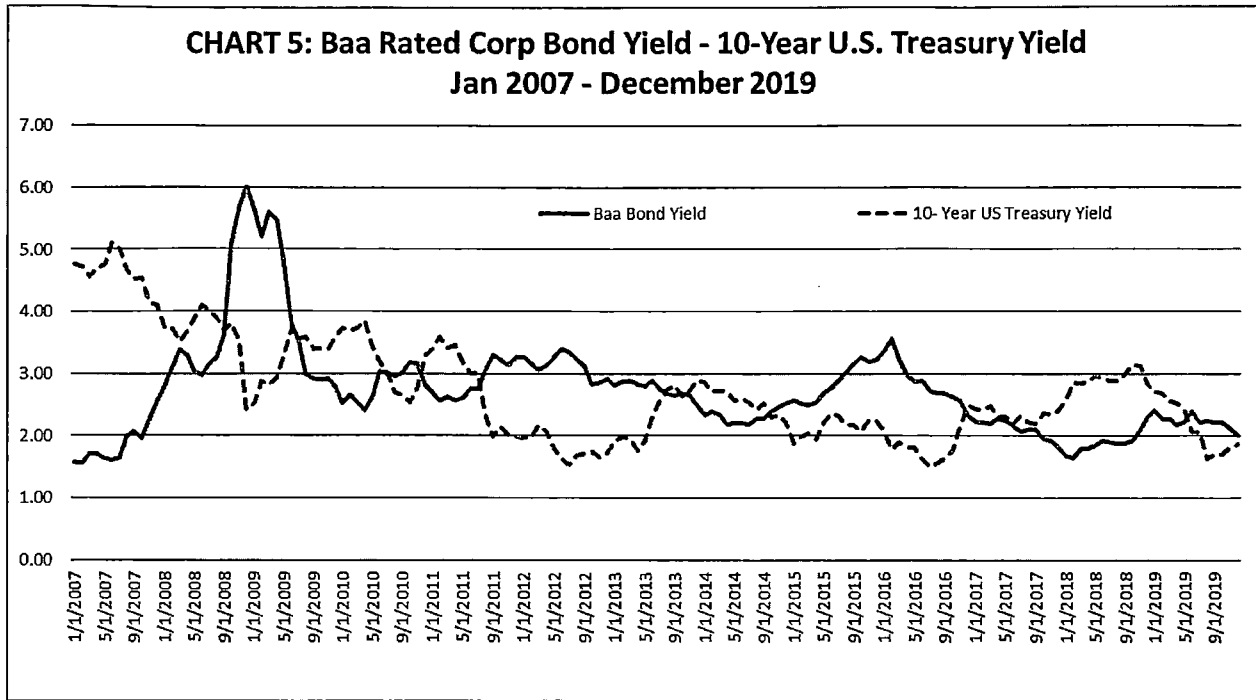
3 **C. Low Credit Spreads**

4 **Q. WHAT DO LOW U.S. TREASURY YIELDS MEAN FOR THE COST OF**
5 **EQUITY?**

6 **A.** Historical market data indicates that a low interest rate environment, like we have now,
7 indicates a low cost of equity. Chart 5 below shows that as interest rates decrease, the yield
8 credit spread between Baa rated corporate bonds and U.S Treasury bonds, which is a proxy
9 for the cost of equity, has remained relatively stable (except for the great recession). This
10 chart indicates that the cost of equity decreases as interest rates decrease because the extra
11 yield investors demand to purchase Baa, Corporate bonds, and equities, is over a lower
12 “risk free”²⁴ rate of return.

²³ Did Treasury Debt Markets Anticipate the Persistent Decline in Long-Term Interest Rates?, Congressional Budget Office, Edward N. Gamber, page 2. This paper can be found at: <https://www.cbo.gov/system/files/115th-congress-2017-2018/workingpaper/53153-interestrateswp.pdf>

²⁴ The return on investments with no chance of loss. For example, short-term U.S. Government bonds virtually risk-free rate because the U.S. Government can print money to avoid default.



D. Volatility Expectations

Q. WHAT IS YOUR BASIS FOR CLAIMING THAT INVESTORS VIEW THE MARKETS AS LESS RISKY?

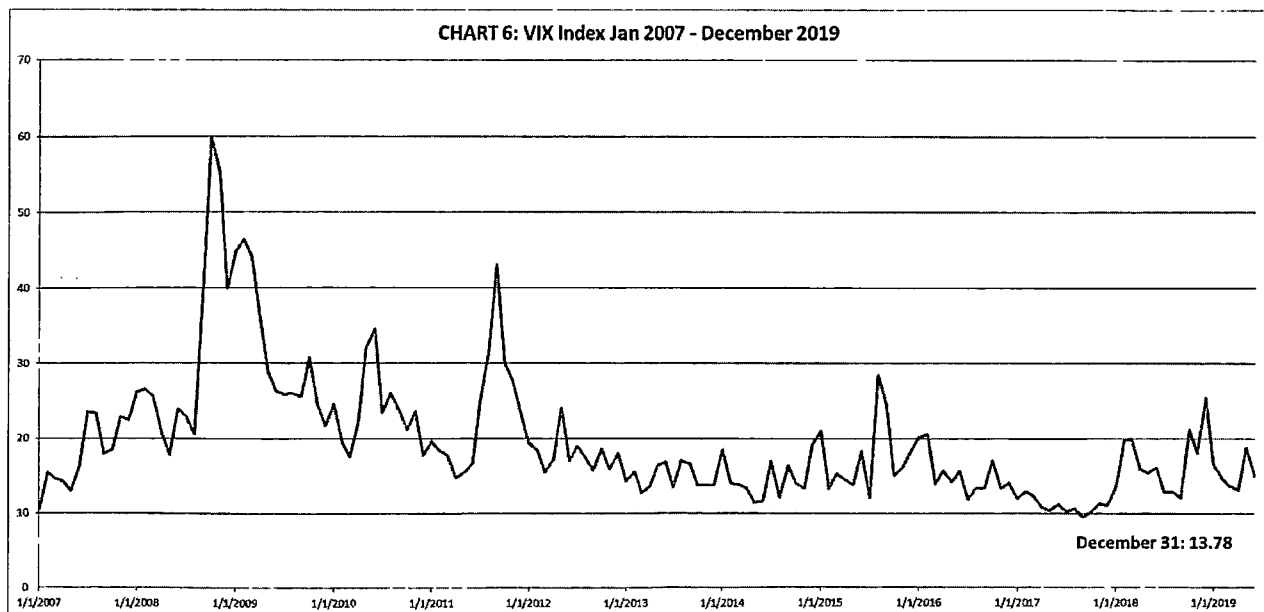
A. The Market Volatility Index (“VIX”) is a market indicator that allows us to see what investors expect volatility to be in the future. Volatility, uncertainty, and risk are synonymous. Therefore, the VIX index can be a valuable tool to determine investors’ assessment of the riskiness of financial markets. This is a more direct route than trying to monitor world events, analysts’ forecasts and surveys. This direct route has not only proven to be more accurate than forecasts and interpretations, but is also aligned with the principle that the cost of capital is a market-based concept.

1 **Q. PLEASE EXPLAIN FURTHER WHAT THE VIX INDEX IS AND HOW IT IS**
2 **ESTABLISHED.**

3 **A.** The Chicago Board Options Exchange ("CBOE") VIX is based on options on the S&P 500
4 Index and reflects the market consensus expected volatility in the S&P 500 over the next
5 30 days on an annual basis. It is sometimes known as the "fear index."

6 **Q. WHAT IS THE MARKET PRICE OF THE VIX CURRENTLY AND HOW DOES**
7 **THIS COMPARE TO PRICES DURING THE GREAT RECESSION?**

8 **A.** As of December 31, 2019, the VIX Index was trading at 13.78, indicating that investors
9 expect an annualized change of 13.78% over the next 30 days. At the height of the financial
10 crisis in 2008, the VIX Index was trading at over 80, indicating that investors expected an
11 annualized change of over 80% over the same 30-day period. As can readily be seen in the
12 chart below, the VIX Index is significantly lower than it was during the financial crisis and
13 is nearing pre-crisis levels.



1 V. **COST OF EQUITY CALCULATION**

2 A. Overview

3 **Q. PLEASE PROVIDE YOUR DEFINITION OF THE COST OF CAPITAL.**

4 **A.** The cost of capital is the return investors require to provide capital to BGWC based on
5 current capital markets. My cost of equity ("COE") recommendation is my opinion of the
6 return investors require to provide equity capital to BGWC based on current capital
7 markets. My recommendation is consistent with the following legal standards set by the
8 United States Supreme Court set for a fair rate of return:

9 The return to the equity owner should be commensurate with returns on investments
10 in other enterprises having corresponding risks.²⁵

11
12 And

13 ...sufficient to...support its credit and...raise the money necessary for the proper
14 discharge of its public duties.²⁶
15

16 Because the cost of equity is not a published figure like a bond yield, some
17 interpretation is required to determine the appropriate market price. My cost of equity
18 recommendation is based on my computation of what the market indicates investors require
19 (return on investment) to provide capital to companies with comparable risk to BGWC.

20 As explained below, I use current market prices (e.g. stocks, bonds, options), which
21 measures investors' expectations directly, instead of relying solely on historical data and
22 analyst forecasts.
23

²⁵ Federal Power Commission v. Hope Natural Gas Company (1944) 320 U.S. 591, 603.

²⁶ Bluefield Water Works & Improvement Company v. Public Service. Commission of the State of Virginia (1923)
262 U.S. 679, 692-693.

1
2 A cost of equity based on market prices (market-based) is superior to a cost of equity based
3 on historical data (non-market-based) for two reasons:

- 4 • The cost of equity that BGWC has to pay investors is based on capital markets. Interest
5 rates remain at historical low levels after a persistent downtrend since the early 1980s
6 (see Chart 3 above). It is possible interest rates will increase, but if the marketplace
7 expected interest rates to change, then that would already be part of current prices.
8 • Capital markets are unpredictable. Regarding capital markets' unpredictability,
9 investment guru Warren Buffet recently gave the following advice to investors:

10 "They should not listen to a lot of the jabbering about what the market is going to
11 do tomorrow, or next week or next month because nobody knows."²⁷
12

13 Research, which I will present later in my testimony, supports Mr. Buffet's advice
14 to investors and my opinion that the cost of equity should be based on current capital
15 markets. Current capital markets are our best source of investors' expectations regarding
16 future capital markets.

17 Current market prices of stocks and bonds reflect investors' forecasts for long-term
18 interest rates and capital markets in general. If, indeed, investors in aggregate should be
19 expecting an increase in interest rates, adding a separate factor for this on top of what is
20 already indicated in market prices would amount to a double-count.
21
22

²⁷ PBS News Hour, June 26, 2017, Part 1 – America should stand for more than just wealth, says Warren Buffett.

1 **Q. WHICH COMPANIES DID YOU INCLUDE IN YOUR COMPARABLE GROUP**
2 **OF UTILITY COMPANIES TO DETERMINE YOUR COST OF EQUITY**
3 **RECOMMENDATION?**

4 **A.** I included the following 6 utility companies, referred to as the Water Proxy Group: (1)
5 American States Water, (2) American Water Works, (3) Aqua America, (4) California
6 Water Service Group, (5) Middlesex Water Company, and (6) York Water. Mr.
7 D'Ascendis Utility Proxy Group includes 5 of the 6 water companies in my Water Proxy
8 Group.

9 **Q. HOW DID YOU ARRIVE AT YOUR COST OF EQUITY**
10 **RECOMMENDATIONS?**

11 **A.** I used both a constant growth and non-constant growth Discounted Cash Flow ("DCF")
12 method. My constant growth DCF method determines growth based on the sustainable
13 retention procedure. My non-constant growth method is based on estimated dividend
14 growth for the next 5-years and capital gains. Additionally, I used a Capital Asset Pricing
15 Model ("CAPM") based on current market data. Later in my testimony, I explain the theory
16 behind both the DCF and CAPM methods.

17 ***B. Discounted Cash Flow***

18 **Q. HOW DID YOU ARRIVE AT YOUR DCF-BASED COST OF EQUITY**
19 **RECOMMENDATION?**

20 **A.** I used the constant growth form of the Discounted Cash Flow ("DCF") method that
21 determines growth based on the sustainable retention growth procedure and a non-constant
22 DCF method. My constant growth form DCF analysis indicates a cost of equity range of

1 between 8.34% and 8.76% for the Water Proxy Group.²⁸ The results of my non-constant
2 DCF method indicates a cost of equity of between 5.72% and 6.96% for the Water Proxy
3 Group.²⁹ Based on these results from my constant growth and non-constant growth DCF
4 methods, I concluded that an 8.75% cost of equity for the Water Proxy Group is
5 conservatively high. I recommend an 8.65% cost of equity for BGWC because, based on
6 its requested capital structure, it has slightly less financial risk than my Water Proxy Group.

7 **Q. WHAT IS THE DISCOUNTED CASH FLOW METHOD?**

8 **A.** The DCF method, is an approach to determining the cost of equity. The method recognizes
9 that investors purchase common stock to receive future cash payments. These payments
10 come from: (a) current and future dividends, and (b) proceeds from selling stock. A rational
11 investor will buy stock to receive dividends and to ultimately sell the stock to another
12 investor at a gain. The price the new owner is willing to pay for stock is related to that
13 buyer's expectation of future flow of dividends and the future expected selling price. The
14 value of the stock is the discounted value of all future dividends until the stock is sold plus
15 the value of proceeds from the sale of the stock.

16 **Q. HAVE INVESTORS ALWAYS USED THE DCF METHOD?**

17 **A.** While investors who buy stock have always done so for future cash flow, the DCF approach
18 first appeared in the 1937 Harvard Ph.D. thesis of John Burr Williams titled *The Theory of*
19 *Investment Value*. Author Peter L. Bernstein once stated, Williams' model for valuing a
20 security calls for the investor to make a long-run projection of a company's future dividend

²⁸ See Exhibit ALR 2.

²⁹ See Exhibit ALR 4.

1 payments..."³⁰ The Williams DCF model separately discounts each and every future
 2 expected cash flow. Dividends and proceeds from the sale of stock are the expected cash
 3 flows. Its accuracy is therefore unaffected by non-constant growth rates. Myron Gordon
 4 and Eli Shapiro who helped to make this method widely used, referred to Williams' work
 5 in their paper published in 1956 "Equipment Analysis: The Required Rate of Profit."

6 **C. Constant Growth Form of the DCF Model**

7 **Q. YOU STATE YOU USED THE CONSTANT GROWTH FORM OF THE DCF**
 8 **MODEL. WHAT IS THE CONSTANT GROWTH FORM OF THE DCF MODEL?**

9 **A.** The constant growth form of the DCF model is a form of the DCF method that can be used
 10 in determining the cost of equity when investors can reasonably expect that the growth of
 11 retained earnings and dividends will be constant.

12 Retained earnings are funds that a company keeps in its treasury, so that it is
 13 available for future needs, such as operating expenses, capital expenditures, debt payments,
 14 and new investments. These retained earnings show investors whether the company is
 15 growing which, in turn, is a measure of the future indicator of dividends and the value of a
 16 company's stock.

17 **Q. DESCRIBE HOW THE CONSTANT GROWTH MODEL WORKS.**

18 **A.** The constant growth model is described by this equation $k = D/P + g$, where:³¹

19 k = cost of equity;

20 D =Dividend; and

21 P =Market price of stock at time of the analysis.

22 and where:

23 g =the growth rate, where $g = br + sv$;

³⁰ P. BERNSTEIN, *Capital Ideas: The Improbable Origins of Modern Wall Street* (The Free Press, © 1992).

³¹ M. GORDON, *Cost of Capital to a Public Utility*, at 32-33 (MSU Public Utility Studies 1974).

1 b=the earnings retention rate;
2 r=return on common equity investment (referred to below as "book equity");
3 v=the fraction of funds raised by the sale of stock that increases the book value of
4 the existing shareholders' common equity; and
5 s=the rate of continuous new stock financing.
6 The constant growth model is therefore correctly recognized to be:
7 $k = D/P + (br + sv)$

8 The cost of equity demanded by investors is the sum of two factors. The first
9 factor is the dividend yield. The second factor is growth (dividends and stock price). The
10 logical relationship among these factors is as follows: the dividend yield is calculated
11 based on current dividend payments while growth indicates what dividends and stock
12 price will be in the future.

13 **Q. WHAT OTHER FACTORS IMPACT HOW ONE USES THE CONSTANT**
14 **GROWTH FORM OF THE DCF MODEL?**

15 **A.** Sufficient care must be taken to be sure that the growth rate "g" is representative of the
16 constant sustainable growth. To obtain an accurate constant growth DCF result, the
17 mathematical relationship between earnings, dividends, book value and stock price must
18 be respected.

19 Suppose one is faced with a situation where Value Line forecasts of growth are
20 being used as a source for inputs and Value Line projects different growth rates for earnings
21 per share and dividends per share. Under such conditions, the earnings per share growth
22 rate does not provide a reasonable proxy for earnings per share growth, and dividends per
23 share and stock price growth as well. Consider the following:
24

1 1. It is the lower dividend growth rate that makes it possible for more earnings
2 to be retained, which in turn makes the earnings per share growth rate higher than
3 it would be if dividends had in fact been modeled by Value Line to keep pace with
4 earnings per share growth.

5 2. A dividend growth rate that is lower than both the earnings per share growth rate
6 and the stock price growth rate means that the dividend yield will be going down.
7 However, the constant growth form of the DCF model has no mechanism to account
8 for the lower dividend yield investors would get if the Value Line projections were
9 correct.

10 Using an earnings per share growth rate in the constant growth form of the DCF
11 model will therefore result in an overstatement of the cost of equity whenever the earnings
12 per share growth rate that has been modeled is derived along with an expectation of a lower
13 dividend growth rate. This is because, under these conditions, the dividend yield portion of
14 the constant growth form of the equation will be overstated.

15 The basic difference between the use of an analysts' earnings per share growth rate
16 in the constant growth DCF formula and using the "br" (b (the earnings retention rate) X r
17 (rate of return on common equity investment)) approach is that the "br" form, if properly
18 applied, eliminates the mathematical error caused by an inconsistency between the
19 expectations for earnings per share growth and dividends per share growth. Because it
20 eliminates that error, the results of a properly applied "br" approach will be superior to the
21 answer obtained from other approaches to the constant growth form of the DCF model.
22 This is not to say that even a properly applied "br" approach will be perfect. The self-
23 correcting nature of a properly applied "br" to forecasted differences in earnings per share

1 and dividends per share growth rates helps mitigate the resultant error, but should not be
2 viewed as the perfect way to quantify the impact of expected non-constant growth rates.

3 **Q. ARE YOU AWARE OF CLAIMS ALLEGING THAT THE “BR” APPROACH TO**
4 **THE CONSTANT GROWTH DCF MODEL IS FLAWED BECAUSE IT RELIES**
5 **ON THE VALUE OF THE FUTURE EXPECTED RETURN ON BOOK EQUITY**
6 **“R” TO ESTIMATE WHAT THE EARNED RETURN ON EQUITY SHOULD**
7 **BE?**

8 **A.** Yes. One common criticism is that it is not reasonable for the DCF to indicate a cost of
9 equity (market return) that is different (lower or higher) than the expected return on book
10 equity (accounting). There are multiple reasons why this concern is unfounded:

11 1. The constant growth form of the equation using “br” is:

$$k = D/P + (br + sv).$$

12
13 In this equation, k is the variable for the cost of equity, and r is the future expected
14 return on equity. The cost of equity, “k,” is not the same variable as the future
15 expected earned return on equity, “r.” In fact, there often is a large difference
16 between the two.

17 2. The correct value to use for “r” is the return on book equity expected by
18 investors as of the time the stock price and dividend data is used to quantify the D/P
19 term in the equation. Therefore, even if future events occur that may change what
20 investors expect for “r”, the computation of the cost of equity “k” remains correct
21 as of the time the computation was made.

22 3. The ability of a commission’s ROE decision to influence future cash flow
23 expectations is not unique to the retention growth DCF approach. The five-year

analysts' earnings per share growth rate is a computation that is directly influenced by what earnings per share will be in five years. Allowed ROE's impact earning – higher allowed returns lead to higher earnings growth because the higher allowed returns the more earnings that is available for reinvestment.

Q. CAN CHANGES IN THE ACTUAL EARNED RETURNS IMPACT GROWTH ABOVE AND BEYOND WHATEVER GROWTH RESULTS FROM EARNINGS RETENTION?

A. Yes, but large short-term changes in earnings per share caused by a perceived change in the future expected earned returns are unsustainable. The new perceived earned return on book equity should be part of the computation, but the one-time growth spurt to get there is no more indicative of the sustainable growth required in the constant growth DCF formula than the temporary negative growth that occurs when a company has a bad year.

Q. HOW HAVE YOU IMPLEMENTED THE CONSTANT GROWTH FORM OF THE DCF MODEL IN THIS CASE?

A. I have applied the constant growth form of the DCF model by staying true to the mathematically derived " $k=D/P + (br + sv)$ " form of the DCF model. I have also taken care to fully allocate all future expected earnings to either future cash flow in the form of dividends ("D") or to retained earnings (the retention rate, "b"). This extra accuracy is obtained only when the retention rate "b" is derived from the values used for "D" and "r," rather than independently.

Q. PLEASE EXPLAIN HOW YOU OBTAINED THE VALUES TO INPUT INTO THE CONSTANT GROWTH FORM OF THE DCF METHOD.

1 **A.** The DCF model generally calls for the use of the dividend expected over the next year. A
2 reasonable way to estimate next year's dividend rate is to increase the quarterly dividend
3 rate by $\frac{1}{2}$ of the current actual quarterly dividend rate. This is a good approximation of the
4 rate that would be obtained if the full prior year's dividend were escalated by the entire
5 growth rate.³²

6 I obtained the stock price—"P"—used in my DCF analysis from the closing prices
7 of the stocks on December 31, 2019. I also obtained an average stock price for the 12
8 months ending December 31, 2019 by averaging the high and low stock prices for the year.

9 I based the value of the future expected return on equity—"r"—on the average
10 return on book equity expected by Value Line, adjusted in consideration of recent returns.

11 I also made a computation that was based on a review of both the earned return on equity
12 consistent with analysts' consensus earnings growth rate expectations and on the actual
13 earned returns on equity. For a stable industry such as utility companies, investors will
14 typically look at actual earned returns on equity as one meaningful input into what can be
15 expected for future earned returns on book equity. See Exhibit ALR 4, page 1.

16 This return on book equity expectation used in the DCF method to compute growth
17 must *not* be confused with the cost of equity. Since the stock prices for the comparative

³² For example, assume a company paid a dividend of \$0.50 in the first quarter a year ago, and has a dividend growth rate of 4 % per year. This dividend growth rate equals $(1.04)^4 - 1 = 0.00985$ % per quarter. Thus, the dividend is \$0.5049 in the second quarter, \$0.5099 in the third quarter, and \$0.5149 in the fourth quarter. If that 4 % per annum growth continues into the following year, then the dividend would be \$0.5199 in the 1st quarter, \$0.5251 in the 2nd quarter, \$0.5303 in the 3rd quarter, and \$0.5355 in the 4th quarter. Thus, the total dividends for the following year equal \$2.111 ($0.5199 + 0.5251 + 0.5303 + 0.5355$). I computed the dividend yield by taking the current quarter (the \$0.5149 in the 4th quarter in this example), and multiplying it by 4 to get an annual rate of \$2.06. I then escalated this \$2.06 by $\frac{1}{2}$ the 4 % growth rate, which means it is increased by 2 %. $\$2.06 \times 1.02 = \$2.101$, which is within one cent of the \$2.111 obtained in the example.

1 companies are considerably higher than their book value, the return investors expect to
2 receive on their market price investment is considerably less than whatever is the
3 anticipated return on book value. If the market price is low relative to book value, the cost
4 of equity will be higher than the future expected return on book equity, and if the market
5 price is high, then the return on book equity will be less than the cost of equity.

6 In addition to growing through the retention of earnings, utility companies also
7 grow by selling new common stock. Selling new common stock increases a company's
8 growth. I quantified this growth caused by the sale of new common stock by multiplying
9 the amount that the actual market-to-book ratio exceeds 1.0, by the compound annual
10 growth rate of stock that Value Line forecasts. The results of that computation are shown
11 on line 4 of Exhibits ALR 4, page 1.

12 Pure financial theory prefers concentrating on the results from the most current
13 price because investors cannot purchase stock at historical prices. There is a legitimate
14 concern, however, about the potential distortion of using just a single price. I present both
15 so this Commission can use the approach it deems more appropriate. As shown in Exhibit
16 ALR 2, my DCF method, applied to the Water Proxy Group, the DCF result based on the
17 year-end stock price and the DCF result based on average prices for the year ending
18 December 31, 2019 is 8.76%. As of December 31, 2019, the result is 8.34%. Exhibit ALR
19 4, page 1, shows more of the specifics of how I implemented the constant growth form of
20 the DCF model for the Water Proxy Group.

21 **Q. PLEASE EXPLAIN HOW YOU DETERMINED WHAT VALUE TO USE FOR**
22 **"R" WHEN COMPUTING GROWTH IN YOUR CONSTANT GROWTH FORM**
23 **OF THE DCF MODEL.**

1 **A.** The inputs I considered are shown in Footnote [C] of Exhibit ALR 4, page 1A and B. The
2 value of “r” that is appropriate to use in the DCF formula is the value anticipated by
3 investors to be maintained on average in the future. This schedule shows that the average
4 future return on equity forecast by Value Line for the Water Proxy Group for 2019-2022-
5 2024 is 13.00%. The same footnote also shows that the future expected return on equity
6 derived from the Zacks consensus forecast is 10.93%, and that the actual returns on equity
7 earned on average by the Water Proxy Group were 10.57% in 2016, 10.59% in 2017 and
8 10.50% in 2018. Based on the combination of the forecast return on equity derived from
9 the Zacks consensus, the recent historical actual earned returns and Value Line’s forecast,
10 I made the DCF growth computation using a 11.85%³³ value of “r” for the year-end stock
11 price data, I used an “r” of 11.20%.

12 **Q. WHAT COST OF EQUITY IS INDICATED BY THE CONSTANT GROWTH**
13 **FORM OF THE DCF METHOD THAT YOU RELY ON FOR YOUR**
14 **RECOMMENDATION?**

15 **A.** The result of my DCF analysis using the Constant Growth form of the DCF indicates a cost
16 of equity range of between 8.34% and 8.76% for the Water Proxy Group.³⁴ Since these
17 DCF findings use analysts’ forecasts to derive sustainable growth (in part) and on analysts’
18 forecasts of dividend growth and book value growth in the non-constant form of the DCF
19 method, the results should be considered as conservatively high. This is because, as

³³ I used 11.85% and 11.20% in consideration of historical returns, allowed returns and Value Line projected returns for the Water Proxy Group.

³⁴ Exhibit ALR -2.

1 previously mentioned above, analysts' forecasts of such growth have been notoriously
2 overstated.

3 My results are not as influenced by over-optimistic analysts' forecasts as would
4 have been the case had I merely used analysts' five-year earnings growth rate forecasts as
5 a proxy for long-term growth. This is because the DCF methods I use compute sustainable
6 growth rates rather than growth rates that can exaggerate the growth rate due to assuming
7 that a relatively short-term forecast (five-years) will remain indefinitely.

8 **D. Non-Constant Growth Form of the DCF Model**

9 **Q. PLEASE EXPLAIN HOW YOU IMPLEMENTED THE NON-CONSTANT**
10 **GROWTH FORM OF THE DCF MODEL.**

11 **A.** The non-constant growth form of the DCF model determines the return on investment
12 expected by investors based on an estimate of each separate annual cash flow the investor
13 expects to receive. For the purpose of this computation, I've incorporated Value Line's
14 detailed annual forecasts to arrive at the specific non-constant growth expectations that an
15 investor who trusts Value Line would expect. This implementation is shown on Exhibit
16 ALR 4, page 2-3. In the first stage cash flow entry is the cash outflow an investor would
17 experience when buying a share of stock at the market price. The subsequent years of cash
18 flow are equal to the dividends per share that Value Line forecasts. For the intermediate
19 years of the forecast period in which Value Line does not provide a specific dividend, the
20 annual dividends were obtained by estimating that dividend growth would persist at a
21 compound annual rate. The cash flow at the end of the forecast period consists of both the
22 last year's dividend forecast by Value Line and the proceeds from the sale of the stock. The
23 stock price used to determine the proceeds from selling the stock was obtained by

1 estimating that the stock price would grow at the same rate at which Value Line forecasts
2 book value to grow.

3 **Q. WHY DID YOU USE BOOK VALUE GROWTH TO PROVIDE THE ESTIMATE**
4 **OF THE FUTURE STOCK PRICE?**

5 **A.** For any given earned return on book equity, earnings are directly proportional to the book
6 value. Furthermore, book value growth is the net result after the company produces
7 earnings, pays a dividend and also, perhaps, either sells new common stock at market price
8 or repurchases its own common stock at market price.

9 Once these cash flows are entered into an Excel spreadsheet, the compound annual
10 return an investor would achieve as a result of making this investment was obtained by
11 using the Internal Rate of Return (IRR) function built into the spreadsheet. As shown on
12 Exhibit ALR 4, pages 2-3, this multi-stage DCF model produced an average indicated cost
13 of equity of 5.72% based on the year-end stock price and 6.96% based on average prices
14 for the year ending December 31, 2019 for the Water Proxy Group.

15 **Q. YOUR NON-CONSTANT GROWTH DCF MODEL USES ANNUAL EXPECTED**
16 **CASH FLOWS. SINCE DIVIDENDS ARE PAID QUARTERLY RATHER THAN**
17 **ANNUALLY, HOW DOES THIS SIMPLIFICATION IMPACT YOUR RESULTS?**

18 **A.** I used the annual model because it is easier to input the data and for observers to visualize
19 what is happening. By modeling cash flows to be annual rather than when they actually
20 are expected to occur causes a small overstatement of the cost of equity.

21 **Q. WHY IS IT A SMALL OVERSTATEMENT IF YOU HAVE MODELED**
22 **DIVIDENDS TO BE RECEIVED SOME MONTHS AFTER INVESTORS**
23 **ACTUALLY EXPECT TO RECEIVE THEM?**

1 **A.** The process of changing from an annual model to a quarterly model would require two
2 changes, not just one. A quarterly model would show dividends being paid sooner and
3 would also show earnings being available sooner. A company that receives its earnings
4 sooner, rather than at the end of the year, has the opportunity to compound them. Since
5 revenues, and therefore earnings, are essentially received every day, a company that is
6 supposed to earn an annual rate of 9.00% on equity would have to earn only 8.62% if the
7 return were compounded daily.³⁵ This reduction from 9.00% to 8.62% would then be
8 partially offset by the impact of the quarterly dividend payment to bring the result of
9 switching from the simplifying annual model closer to, but still a bit below 9.00%.

10 **Q.** **BY USING CASH FLOW EXPECTATIONS AS THE VALUATION**
11 **PARAMETER, DOES THE NON-CONSTANT DCF MODEL STILL RELY ON**
12 **EARNINGS?**

13 **A.** Yes. It relies on an expectation of future cash flows. Future cash flows come from
14 dividends during the time the stock is owned and capital gains from the sale of the stock
15 once it is sold. Since earnings impact both dividends and stock price, the non-constant
16 DCF model still relies on earnings.

17 Every dollar of earnings is used for the benefit of stockholders, either in the form
18 of a dividend payment or earnings reinvested for future growth in earnings and/or
19 dividends. Earnings paid out as a dividend have a different value to investors than earnings
20 retained in the business. Recognizing this difference and properly considering it in the
21 quantification process is a major strength of the DCF model, and is why the non-constant

³⁵ $(1+0.0862/365)^{365}=1.09=9.00\%$.

1 DCF model as I have set forth is an improvement over either the P/E ratio or D/P methods.

2
3 **Q. WHY IS THERE A DIFFERENCE TO INVESTORS IN THE VALUE OF**
4 **EARNINGS PAID OUT AS A DIVIDEND COMPARED TO THE VALUE OF**
5 **EARNINGS RETAINED IN THE BUSINESS?**

6 **A.** The return on earnings retained in the business depends upon the opportunities available to
7 that company. If a regulated utility reinvests earnings in needed used and useful utility
8 assets, then those reinvested earnings have the potential to earn at whatever return is
9 consistent with ratemaking procedures allowed and the skill of management in prudently
10 operating the system.

11 When an investor receives a dividend, he can either reinvest it in the same or
12 another company or use it for other things, such as paying down debt or paying living
13 expenses. Although an investor could theoretically use the proceeds from any dividend
14 payments to simply buy more stock in the same company, when an investor increases his
15 investment in a company by purchasing more stock, the transaction occurs at market price.
16 However, when the same investor sees his investment in a company increase because
17 earnings are retained rather than paid as a dividend, the reinvestment occurs at book value.
18 Stated within the context of the DCF terminology: earnings retained in the business earn at
19 the future expected return on book equity "r," and dividends used to purchase new stock
20 earn at the rate "k." When the market price exceeds book value (that is, the market-to-
21 book ratio exceeds 1.0), retained earnings are worth more than earnings paid out as a
22 dividend because "r" will be higher than "k." Conversely, when the market price is below

1 book value, "k" will be higher than "r," meaning that earnings paid out as a dividend earn
2 a higher rate than retained earnings.

3 **Q. IF RETAINED EARNINGS WERE MORE VALUABLE WHEN THE MARKET-**
4 **TO-BOOK RATIO IS ABOVE 1.0, WHY WOULD A COMPANY WITH A**
5 **MARKET-TO-BOOK RATIO ABOVE 1.0 PAY A DIVIDEND RATHER THAN**
6 **RETAIN ALL OF THE EARNINGS?**

7 **A.** Retained earnings are more valuable than dividends only if there are sufficient
8 opportunities to profitably reinvest those earnings. Regulated utility companies are
9 allowed to earn the cost of capital only on assets that are used and useful in providing utility
10 service. Investing in assets that are not needed may not produce any return at all. For
11 unregulated companies, opportunities to reinvest funds are limited by the demands of the
12 business. For example, how many new computer chips can Intel profitably develop at the
13 same time?

14 **Q. UNDER THE NON-CONSTANT DCF MODEL, IS IT NECESSARY FOR**
15 **EARNINGS AND DIVIDENDS TO GROW AT A CONSTANT RATE FOR THE**
16 **MODEL TO BE ABLE TO ACCURATELY DETERMINE THE COST OF**
17 **EQUITY?**

18 **A.** No. Because the non-constant form of the DCF model separately discounts each and every
19 future expected cash flow, it does *not* rely on any assumptions of constant growth. The
20 dividend yield can be different from period to period, and growth can bounce around in
21 any imaginable pattern without harming the accuracy of the answer obtained from
22 quantifying those expectations. When the non-constant DCF model is correctly used, the
23 answer obtained is as accurate as the estimates of future cash flow.

1 **Q. WHAT COST OF EQUITY DOES YOUR NON-CONSTANT GROWTH DCF**
2 **METHOD INDICATE?**

3 **A.** My non-constant growth DCF method indicates a cost of equity of between ~~7.1577%~~ 5.72% and
4 6.96%
/ 9.41%.³⁶

5 **E. Capital Asset Pricing Model**

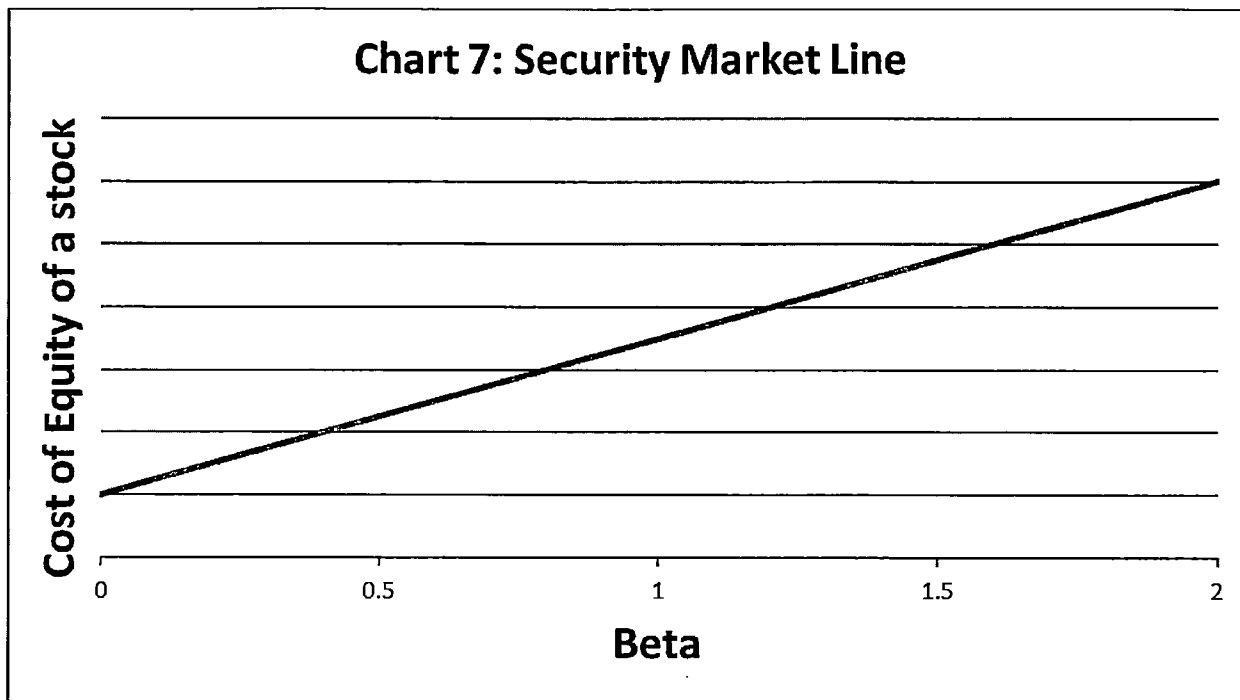
6 **Q. PLEASE DESCRIBE THE CAPM.**

7 **A.** CAPM stands for "Capital Asset Pricing Model." The CAPM relates return to risk;
8 specifically, it relates the expected return on an investment in a security to the risk of
9 investing in that security. The riskier the investment, the greater the expected return (*i.e.*,
10 the cost of equity) investors require to make for that investment.

11 Investors in a firm's equity face two types of risks: (1) firm-specific risk and (2)
12 market risk (financial analysts refer to this market risk as systematic risk). Firm-specific
13 risk refers to risks unique to the firm such as management performance and losing market
14 share to a new competitor. Investors can reduce firm-specific risk by purchasing stocks
15 as part of a diverse portfolio of companies, if they construct the portfolio to cause the
16 firm-specific risk of individual companies to balance out. Market-related risk refers to
17 potential impacts from the overall market such as a recession or interest rate changes.
18 This risk cannot be removed by diversification, so the investor must bear it no matter
19 what. Because the investor has no option but to bear market risk, the investor's cost of
20 equity will reflect that risk. The CAPM predicts that for a given equity security, the cost
21 of equity has a positive linear relationship to how sensitive the stock's returns are to

³⁶ Exhibit ALR- 4, pages 2-3.

1 movements in the overall market (e.g., S&P 500). A security's market sensitivity is
 2 measured by its **Beta**.³⁷ As shown in Chart 7 below, the higher the beta of a stock, the
 3 higher the company's cost of equity—the return required by the investor to invest in the
 4 stock.



5 Here is the standard CAPM formula:

$$K = R_f + \beta_i * (R_m - R_f)$$

6 Where:

7 K is the cost of equity;

8 R_f is the risk-free interest rate;

9 R_m is the expected return on the overall market (e.g., S&P 500);

10 $[R_m - R_f]$ is the premium investors expect to earn above the risk-free rate for investing in
 11 the overall market ("equity risk premium" or "market risk premium"); and

12 β_i (Beta) is a measure of non-diversifiable, or systematic, risk.

13
 14
 15
 37 The covariation of the return on an individual security with the return on the market portfolio.

1 **Q. PLEASE EXPLAIN HOW YOU IMPLEMENTED THE CAPM.**

2 **A.** First, I determined appropriate values or ranges for each of the three model inputs: (a)
3 Risk Free Rate, (b) Beta, and (c) Equity Risk Premium. Second, I used the equation
4 above to calculate the cost of equity implied by the model. Below I will explain how I
5 calculated the three model inputs and summarize the CAPM cost of equity numbers
6 resulting from those inputs. Table 6 below shows my CAPM results.

7 **1a. Risk Free Rate**

8 I chose to use a risk-free rate of 1.55 %³⁸ based on short-term U.S. Treasury bills
9 (3-months) and long-term U.S. Treasury bonds of 2.39% (30-years) as of December 31,
10 2019. U.S. government bonds are reasonable to use as a risk free rate because they have a
11 negligible risk of default. The value of Short-term U.S. Treasury bills has a relevantly
12 low exposure to swings in the overall market. The value of long-term U.S. Treasury
13 bonds are relatively more exposed to the market and therefore must be used with caution.
14 I considered using a risk-free rate based on subtracting the historical spread between
15 long-term and short-term U.S. Treasury bills from current long-term yields, as
16 recommended by some financial textbooks.³⁹ I did not use this method because, in the
17 current capital markets, this method results in an unreasonably low risk-free rate (under
18 1%).
19
20

³⁸ Exhibit ALR 5, page 4.

³⁹ Brealey, Myers, and Allen (2017), Principles of Corporate Finance, 12th Edition, McGraw-Hill Irwin, New York, page 228

1 **1b. Beta**

2 Since the cost of equity should be based on investor expectations, I chose to use
3 two betas that are based on forward-looking investor expectations of non-diversifiable
4 risk.

5 Most published betas are based on historical return data. For example, Value
6 Line publishes a 5-year historical beta for each of the companies it covers. However, it is
7 also possible to calculate betas based on investors' expectations of the probability
8 distribution of future returns. This probability distribution of future returns expected by
9 investors can be calculated based on the market prices of stock options.

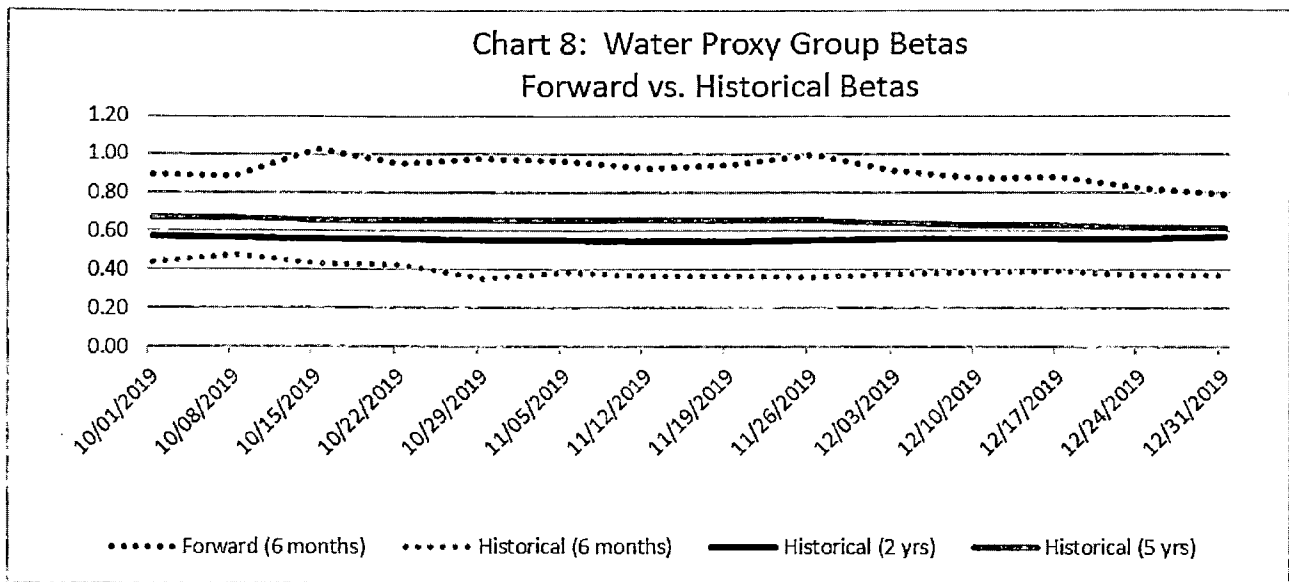
10 A stock option is the right to buy or sell a stock at a specific price for a specified
11 amount of time. A call option is the right to buy a stock at a specified exercise or strike
12 price on or before a maturity date. A put option is the right to sell a stock at a specified
13 exercise or strike price on or before a maturity date. For example, a call option to
14 purchase Apple Computer stock for \$230 on January 17, 2020 allows the owner the
15 option (not the obligation) to buy Apple stock for \$230 on that date. At the end of July
16 2019, Apple stock was trading at about \$215 per share. Why would anyone pay for the
17 right to buy a stock higher than the current price? Investors purchasing call options think
18 there is a chance Apple stock will be trading higher than \$230 on January 17, 2020 and
19 the option will give the investor the right to buy Apple stock for \$230 and profit by
20 selling it at the market price on that date if it is higher.

21 The market prices of put options and call options provide information regarding
22 the probability distribution of future stock prices expected by investors. Using
23 established techniques, I am able to use price data for stock options of my Proxy Group

1 companies and the S&P 500 Index to determine investors' return expectations, including
2 the relationship (covariance) between the return expectations for individual Proxy Group
3 companies and those for the overall market (S&P 500). This covariance between the
4 expected returns for my Proxy Group and for the S&P 500 indicates what investors
5 expect betas will be in the future. I refer to betas based on option price calculations as
6 "option-implied betas."

7 Traditionally, the betas used in CAPM calculations are calculated from historical
8 returns. This approach has strengths and weaknesses. An alternative way to calculate
9 betas is to incorporate investors' return expectations by calculating option-implied betas
10 as explained in the previous paragraph. As discussed below, I have chosen to use both
11 historical and option-implied betas in my CAPM analysis. I chose to use option-implied
12 betas in my CAPM analysis because, among other reasons, studies have found that betas
13 calculated based on investor expectations (option-implied) provide information regarding
14 future perceived risks and expectations.⁴⁰ As shown in Chart 8 below, stock option prices
15 indicate that investors likely expect higher betas for the Proxy Group in the future.

⁴⁰ Bo-Young Chang & Peter Christoffersen & Kris Jacobs & Gregory Vainberg. (2011) Option-Implied Measures of Equity Risk, *Review of Finance* 16: 385-428.



See Exhibit ALR 5, page 2 for data used in creating the chart above.

I used the following two betas in my CAPM analysis:

1. Hybrid Beta: 50% Option-Implied Beta (6 months) + 25% Historical Beta (6 months) + 15% Historical Beta (2 years) + 10% Historical Beta (5 years).

2. Forward Beta: 100% Option-Implied Beta (6 months).

Historical Beta Calculations

I calculate historical betas following the methodology used by Value Line. Specifically, I use the following guidelines:

- Returns for each security are regressed against returns for the overall market in the following form:

$$\ln(p^I_t / p^I_{t-1}) = a_I + B_I * \ln(p^m_t / p^m_{t-1})$$

Where:

- p^I_t is the price of the security I at time t

- p^I_{t-1} is the price of the security I one week before time t
- p^m_t and p^m_{t-1} are the corresponding values of the market index
- B_I is the regression estimate of Beta for the security against the market index

2. The natural log of the price ratio is used as an approximation of each return and no adjustment is made for dividends paid during the week.

3. Weekly returns are calculated weekly on Tuesdays to minimize the effect of holidays as much as possible.

4. Betas calculated using the regression method above are adjusted as per Blume (1971) using the following formula:

$$\text{Adjusted } B_I = 0.35 + 0.67 * \text{Calculated } B_I$$

The only significant difference between my beta calculations and Value Line's calculations is that, whereas Value Line uses the NYSE Composite Index as the market index, I use the S&P 500 Index. S&P 500 Index has a much larger number of options traded, making the calculation of option-implied betas more reliable, and I wanted to make my historical betas as comparable as possible to my option-implied betas. Value Line only calculates betas every three months and always uses a five year period for the return regression in their company reports⁴¹, whereas I use the same consistent methodology to calculate betas every week during the most recent three complete months (October through December 2019) and calculate historical betas for periods of 6 months, two years, and five years, as shown in Chart 8/27 above.

⁴¹ The offer betas calculated over different time periods on their website, including 3-years and 10-years.

Option-Implied Beta Calculations

Calculating option-implied betas of a company requires (1) obtaining stock option data for that company and a market index, (2) filtering the stock option data, (3) calculating the option-implied volatility for the company and for the index, (4) calculating the option-implied skewness for the company and for the index, and (5) calculating option-implied betas for the company based on implied volatility and skewness for the company and for the index. There are various ways one could choose to perform the steps above, but I chose to filter stock option data and calculate option-implied volatility⁴² and skewness⁴³ following exactly the same methodology used by the Chicago Board of Options Exchange (CBOE) in the calculation of their widely-used VIX (or Volatility Index) and SKEW Index, respectively.

I start my process with publicly available trading information for all the options for a given security (company or index) for a complete trading day. I then filter the option data as described by the CBOE, using the following guidelines:

1. Use the mid-quote or mark (average of bid and ask) as the option price.
2. Use only out-of-the-money call and put options.
 - a. Determine the “moneyness” threshold where absolute difference between call and put prices is smallest (using CBOE “Forward Index Price” formula).

⁴² CBOE Volatility Index White Paper, 2018. Cover page says “proprietary information.” The author has had access to this document in the public domain for at least 3 years.

⁴³ The CBOE SKEW Index, 2010. Cover page says “proprietary information.” The author has had access to this document in the public domain for at least 3 years.

1 b. Include “at-the-money” call and put options and use average of call and
2 put prices as price for “blended” option.

3 3. Exclude all zero bids.

4 4. Exclude remaining (more out-of-the-money) options when two sequential zero
5 bids are found.

6 I then apply the series of formulas clearly described in both of the CBOE’s white
7 papers to the remaining options to calculate Option-Implied Volatility and Option-
8 Implied Skewness. In the words of the CBOE, each of its two indices is “an amalgam of
9 the information reflected in the prices of all of the selected options.” To be clear, Implied
10 Volatility is not exactly the same as the VIX Index and Implied Skewness is not exactly
11 the same as the SKEW Index, but both indices are directly based on their corresponding
12 statistical value.

13 Option-Implied Volatility reflects investors’ expectations regarding future stock
14 price movements. Option-Implied Skewness reflects investors’ expectations regarding
15 how implied volatility changes for strike prices that are closer and further to the current
16 value of the underlying stock price.

17 The CBOE calculates Times to Expiration by the minute—as do I. The Time to
18 Expiration of traded options cannot be changed and varies from day to day. For the sake
19 of consistency, the CBOE calculates the VIX and SKEW indices on a “30-day” basis by
20 interpolating for two sets of options with Times to Expiration closest to the 30-day mark.
21 I prefer to focus on as long of a time horizon as possible for forecasting purposes. Option
22 Times to Expiration vary significantly for various stocks, but can relatively consistently

be found to go out to 6 months (180 days) for utility companies. Therefore, for the sake of consistency, I have chosen to interpolate to calculate 6-month volatility and skewness where possible. Occasionally, Times to Expiration for a given stock do not go out to 180 days. If the greatest Time to Expiration available is 171 days (95%) or greater, I use the volatility and skewness for that group of options as a proxy for the 180-day volatility and skewness, respectively.

Finally, once I have calculated the option-implied volatility and skewness for each company and index using the methodology described above, I calculate option-implied betas using the following formula developed by Christoffersen and Chang (2011):⁴⁴

$$\beta_i = \left(\frac{SKEW_i}{SKEW_m} \right)^{1/3} \left(\frac{VAR_i}{VAR_m} \right)^{1/2}$$

Where:

β_i : option – implied beta of security (e.g. stock, fund);
 $SKEW_i$: skewness of security;
 $SKEW_m$: skewness of overall market (S&P 500);
 VAR_i : variance of company;
 VAR_m : variance of overall market (S&P 500).

1c. Equity Risk Premium

My equity risk premium is the expected return on the S&P 500 minus the risk-free rate as described above. I calculated an expected return on the S&P 500 by using stock options traded on this index. The implied volatility for options with an expiration period of one year was approximately 0.1838.⁴⁵ This implied volatility indicates that the market

⁴⁴ Bo-Young Chang & Peter Christoffersen & Kris Jacobs & Gregory Vainberg. (2011) Option-Implied Measures of Equity Risk, *Review of Finance* 16: 385-428.

⁴⁵ Exhibit ALR 5, page 3.

expects the standard deviation of future annual price movements of the S&P 500 to be 18.38%. Based on these market expectations, I considered the following growth rate in the DCF analysis I used to calculate the equity risk premium component of my CAPM:

Base S&P 500 growth of 8.74%

- i. The market expects a 68.3% probability of growth equal to or less than this level. The market expects less than a 32% probability of higher growth.

2. Results

Table 6 below shows a summary of my CAPM results:

TABLE 6: CAPITAL ASSET PRICING MODEL (CAPM) - INDICATED COST OF EQUITY
CAPITAL ASSET PRICING MODEL (CAPM) - INDICATED COST OF EQUITY
(Assuming S&P Growth at 68.3% of Option-Implied Normal Distribution)
Water Proxy Group

	3-Month Treasury Bill		30-Year Treasury Bond	
	Hybrid Beta	Forward Beta	Hybrid Beta	Forward Beta
Risk Free Rate	1.55%	1.55%	2.39%	2.39%
Beta	0.69	0.89	0.69	0.89
Risk Premium	9.00%	9.00%	8.16%	8.16%
CAPM	7.76%	9.59%	8.02%	9.68%

Source: Schedule ALR 5, page 1.

VI. ADDITIONAL COMMENTS ON MR. D'ASCENDIS' TESTIMONY

Q. PLEASE SUMMARIZE THE TESTIMONY OF MR. D'ASCENDIS.

A. Mr. D'Ascendis has recommended that the Company be allowed a return on equity of within a range of 10.20% and 10.70% and an overall cost of capital within a range of 8.10%

1 to 8.36%.⁴⁶ He arrived at his recommendation based upon his own versions of the
2 Discounted Cash Flow (“DCF”) Model, Risk Premium approach (“RPM”) and Capital
3 Asset Pricing Model (“CAPM”). Mr. D’Ascendis testified that, “the use of multiple
4 generally accepted common equity cost rate models...adds reliability and accuracy when
5 arriving at a recommended common equity cost rate.”⁴⁷ Mr. D’Ascendis applies his three
6 cost of equity methods to a group of 6 water utility companies, 5 of which are in my Water
7 Proxy Group. Mr. D’Ascendis refers to this group as the Utility Proxy Group.⁴⁸ He also
8 applies his cost of equity models to a group of non-price regulated companies (“Non-Price
9 Regulated Proxy Group”).⁴⁹ His cost of equity recommendation (10.20%-10.70%)
10 includes an upward adjustment of 0.50% to account for his claim that BGWC has greater
11 business risk than the companies in his Utility Proxy Group.⁵⁰

12 Mr. D’Ascendis concluded that current regulatory environment in South Carolina
13 BGWC’s smaller size, in relation to his Utility Proxy Group, is the cause of the greater
14 business risk that justifies his 0.50% upward adjustment to his cost of equity
15 recommendation.⁵¹

16 Below are the results of Mr. D’Ascendis’ three cost of equity methods.
17

⁴⁶ D’Ascendis Corrected Direct Testimony, page 2, lines 6-13.

⁴⁷ Ibid. page 5, lines 13-17.

⁴⁸ Ibid. page 3, lines 7-11.

⁴⁹ Ibid. page 3, lines 11-13.

⁵⁰ Ibid. page 4, lines 17-22.

⁵¹ Ibid. page 36, lines 3-8.

TABLE 7: D'ASCENDIS COST OF EQUITY RESULTS

METHOD	UTILITY PROXY GROUP	NON-PRICE REGULATED PROXY GROUP
DCF	9.03%	12.14%
RPM	10.39%	11.60%
CAPM	9.91%	10.84%

Q. WHAT IS YOUR OVERALL REACTION TO MR. D'ASCENDIS' TESTIMONY?

A. Mr. D'Ascendis' final recommended range of range of common equity cost rates of 10.20%-10.70%⁵² overstates the cost of equity. The primary reasons Mr. D'Ascendis and I recommend a different cost of equity for BGWC is because he includes a group of 14 "non-price regulated" companies in his analysis. I do not. He claims these 14 companies are comparable in total risk to water utilities. As discussed below, I determined these 14 companies are riskier than water utilities companies. Therefore, the authorized Return on Equity (ROE) should not be based on the cost of equity of these companies.

Mr. D'Ascendis' cost of equity recommendation would be 9.8%-10.3%⁵³, if based on his proxy group of 6 water companies (Utility Proxy Group) exclusively.

Non-Price Regulated Proxy Group

Q. SHOULD THE COST OF EQUITY FOR BGWC BE BASED UPON MR. D'ASCENDIS' "NON-PRICE REGULATED PROXY GROUP"?

⁵² Ibid, page 4, Table 2.

⁵³ Ibid. page 4, Table 2. 9.8% = average of 9.03%, 10.39% and 9.91%. 10.3% = 9.8% + 0.5% "Business Risk Adjustment".

1 **A.** No. Mr. D'Ascendis' Non-Price Regulated Proxy Group of 14 companies should not be
2 used because the companies in this group are not comparable in risk to BGWC. As a
3 regulated utility, BGWC has accepted an obligation to serve within its certificated service
4 territory in exchange for the opportunity to recover its costs and earn a return on its
5 investments. Non-price regulated companies have a different business model and are
6 exposed to different risks. Non-price regulated companies face the risk that their customers
7 will no longer purchase their product if they raise prices to cover increasing costs. BGWC,
8 on the other hand, can file for a rate increase to address increasing costs.

9 The companies in Mr. D'Ascendis' Non-Price Regulated Proxy Group are exposed
10 to tariff related expenses, emerging market economies (e.g. Mexico, Brazil), risks related
11 to recent acquisitions, among many other risks that BGWC is not exposed to. For example,
12 one of his non-price regulated companies, AutoZone, explains in their annual report that
13 their business may be materially adversely affected by the following: (1) political unrest in
14 other countries, (2) the number of older vehicles in service, (3) rising energy prices, (4) the
15 economy, (5) weather, (6) advances in automotive technology, and (7) the number of miles
16 people drive their cars annually, (8) among other risks. Regulated water utilities, including
17 BGWC, are not impacted by many of these factors at all, or to a significantly lower degree
18 because BFWC does not have international operations and if their earnings decline they
19 are impacted for a limited period of time because they can apply for a rate increase. None
20 of the companies in Mr. D'Ascendis' Non-Price Regulated Proxy Group can file for a rate
21 case if political unrest in Brazil, for example, harms earnings.

1 **Q: DO YOU AGREE WITH MR. D'ASCENDIS' METHODOLOGY FOR**
2 **SELECTING A PROXY GROUP COMPARABLE IN TOTAL RISK TO THE**
3 **UTILITY PROXY GROUP?**

4 **A.** No. I found several problems with Mr. D'Ascendis' approach, which I believe results in a
5 proxy group with a significantly different level of total risk than that of the Utility Proxy
6 Group. The most significant problems I see with Mr. D'Ascendis' selection methodology
7 are the following:

8 1. Despite my best efforts including speaking directly with Value Line, I was
9 unable to reproduce Mr. D'Ascendis' calculations of the "Residual Standard
10 Error of the Regression" and the "Standard Deviation of Beta" for each
11 reported company in his Schedule DWD-6, Pages 2 and 3. If this data was
12 not obtained directly from Value Line, as implied by the cited sources in his
13 schedule, Mr. D'Ascendis should provide more details on the methodology
14 of his calculations.

15 2. Independently from the definition and the calculations involved, the third
16 criterium (p. 33, lines 5 and 6) establishes a range of "comparable betas"
17 that is far too wide. As Schedule DWD-6, Page 2 makes clear, the "Beta
18 Range" used by Mr. D'Ascendis is between 0.26 and 0.70. It would be
19 impossible to argue that two companies with betas at opposite ends of this
20 range have comparable risk profiles. A company with a beta of 0.70 is
21 theoretically 30% less volatile than the market as a whole, while a company
22 with a beta of 0.26 is theoretically 74% less volatile. Furthermore, the range

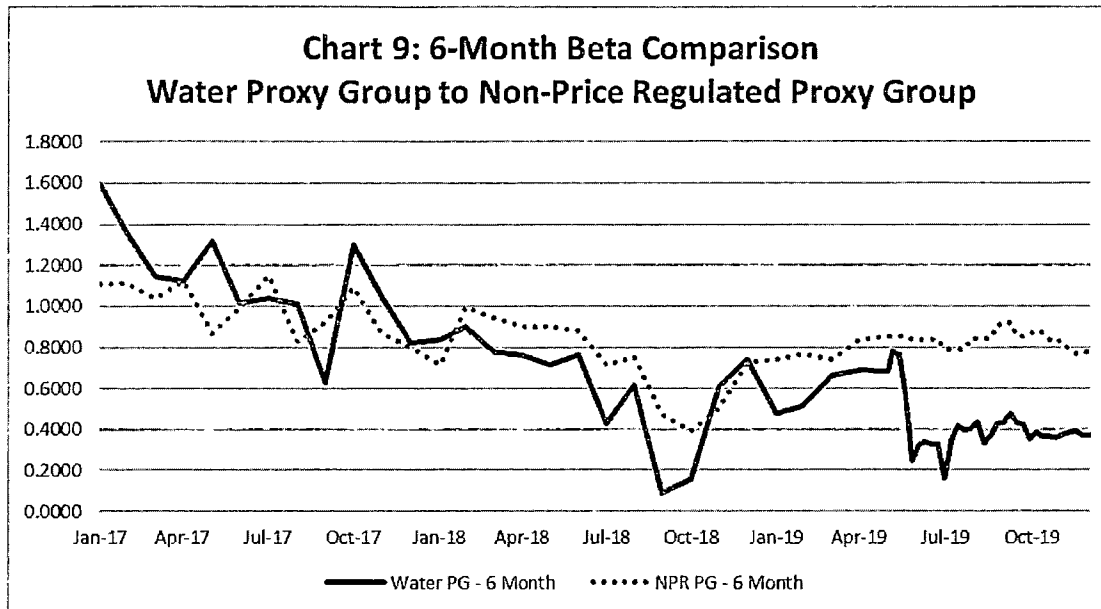
1 is so wide that there are 263 companies that fit the first three criteria laid
2 out by Mr. D'Ascendis.

3 3. It is not clear exactly how Mr. D'Ascendis reduces the number of companies
4 from 263 to 14, but what is clear is that 12 out of the 14 companies in the
5 final selection have betas (both adjusted and unadjusted) above the average
6 beta for the Utility Proxy Group. The two that have betas below the average
7 have betas very close to the average. The result is that the average beta for
8 the Non-Price Regulated Companies is 0.12 higher than the average beta for
9 the Utility Proxy Group, implying a significant difference in the risk profile
10 of the two groups. An impartial methodology applied on such a large
11 sample group should result in a comparable group with an average beta
12 closer to the average of the Utility Proxy Group.

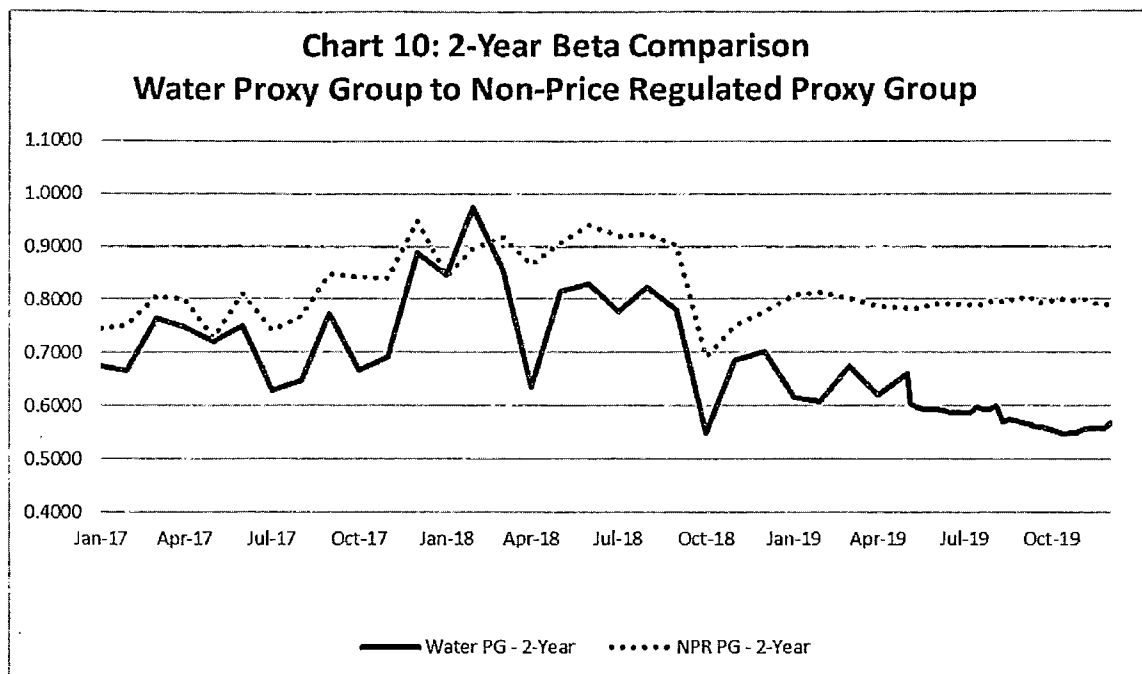
13 **Q. MR. D'ASCENDIS STATES THAT COMPANIES THAT HAVE SIMILAR BETA**
14 **COEFFICIENTS HAVE SIMILAR TOTAL INVESTMENT RISKS. DO THE**
15 **COMPANIES IN MR. D'ASCENDIS' NON-PRICE REGULATED PROXY**
16 **GROUP HAVE SIMILAR BETA COEFFICIENTS TO THE WATER UTILITIES**
17 **IN HIS UTILITY PROXY GROUP?**

18 **A.** No. While similar beta coefficients do indeed indicate similar total investment risks, as
19 shown in Chart 9 below, the historical betas of the companies in Mr. D'Ascendis' Non-
20 Price Regulated Proxy Group are over twice that of the water companies in his Utility
21 Proxy Group. Since the end of June 2019, the betas for the water utilities average about
22 0.4 when calculated based on 6-month return data (i.e., considering returns since January

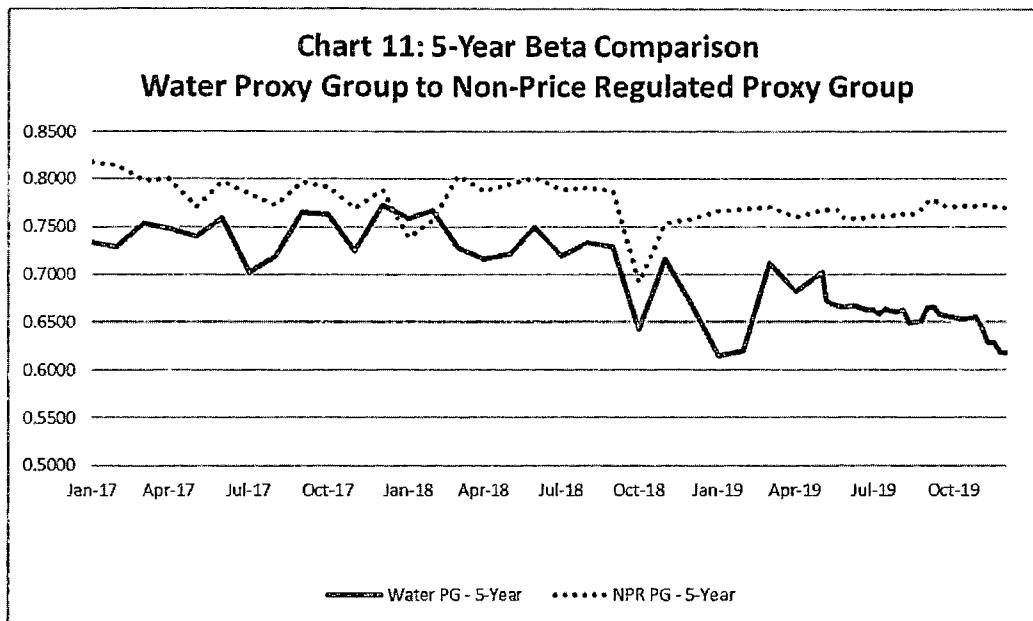
2019 for the June 2019 beta calculations). Over the same time period, the betas for the companies in Mr. D'Ascendis' Non-Price Regulated Proxy Group average over 0.8.



Beta coefficients calculated based on returns over relatively short time periods (e.g., 6 months) can be more indicative of the current risk of companies because it measures recent market activity. If companies have become more or less risky than they were many years ago, betas calculated over shorter time periods will be a better gauge of current risk since they are based only on recent data. That said, betas calculated based on returns over longer periods of time are also worth considering in case recent market developments are temporary. To that end, I compared the beta coefficients of Mr. D'Ascendis' Non-Price Regulated Proxy Group to the water utilities group based on returns over longer periods of time to determine if they indicate a more sustainable relationship. As shown in Chart 10 below, the beta coefficients calculated based on 2-year returns has been about 30% higher for the Non-Price Regulated Proxy Group since the beginning of 2019.

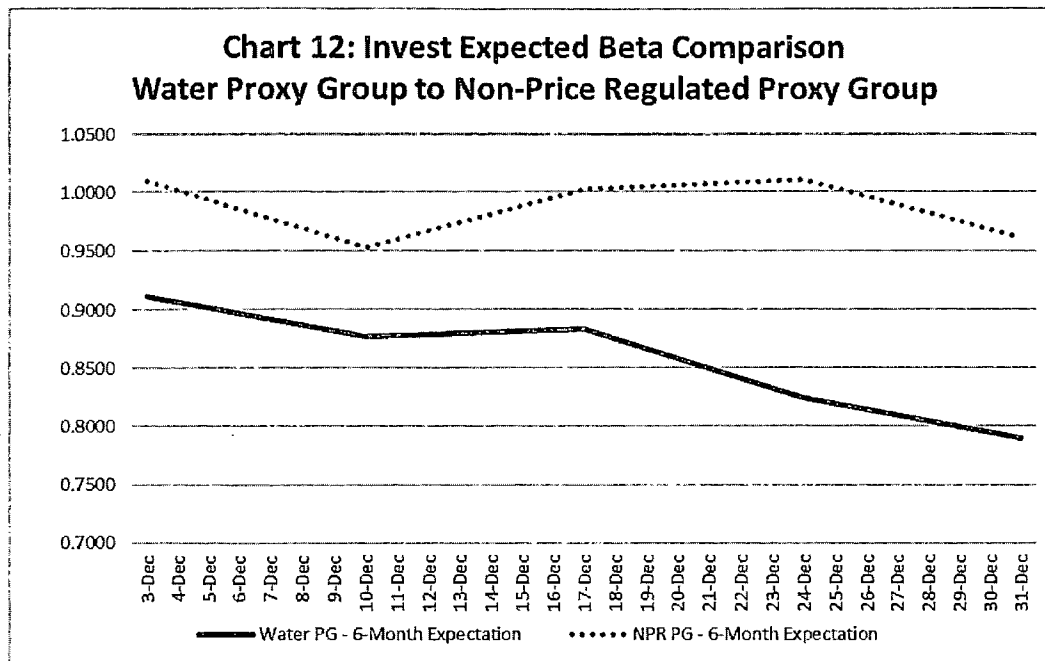


Even beta coefficients calculated based on 5-year returns indicate that betas for the companies in his Non-Price Regulated Proxy Group are currently about 20% higher, as shown in Chart 11 below. The 5-year betas for the two groups overlapped for a brief period in late 2017 to early 2018, but as Chart 11 clearly shows, that was an exception and the Non-Price Regulated Proxy Group has shown considerably higher betas throughout the 3 years of betas analyzed, with the gap only getting larger in the last 6 months.



Charts 9-11cm show betas calculated based on historical returns. Investors may or may not expect the future to be like the past. As explained above, the authorized ROE for BGWC should be based on investor expectations. Historical data is relevant only to the degree it represents investors' current expectations. In addition to historical betas, I also calculated "forward-looking" betas based on current market prices of stock options⁵⁴ (put and call options traded on the 14 companies in Mr. D'Ascendis' Non-Price Regulated Proxy Group) in order to determine the level of risk expected by investors for both proxy groups in the future. As shown in Chart 12 below, throughout December 2019 investors expected (6-months forward) the beta of Mr. D'Ascendis' Non-Price Regulated Proxy Group to remain about 20% higher than the utilities group in the future

⁵⁴ See Section V. E for a definition of stock options.



The results of my analysis presented above indicate that Mr. D'Ascendis' Non-Price Regulated Proxy Group has and is expected by investors to continue to have significantly higher risk than water utilities, based on his own criteria (beta coefficients), and therefore should not be used to determine the appropriate authorized ROE for BGWC in this proceeding.

Q. IS MR. D'ASCENDIS' DCF RESULT OF 9.03% AN APPROPRIATE COST OF EQUITY FOR BGWC?

A. No. Mr. D'Ascendis' 9.03% DCF result, as applied to his proxy group of 6 water utility companies, is relatively close to the market based cost of equity because his DCF analysis relies on a 7.00%⁵⁵ growth component. Below I will explain why the analyst five-year EPS

⁵⁵ Ibid. Schedule DWD-1, page 1 of 7. 7.00% = average of Five Year Growth in EPS shown in column "[6]".

1 growth rate forecasts used by Mr. D'Ascendis' are usually not consistent with sustainable
2 growth rates and lead to above market cost of equity results most of the time. Currently
3 his growth rates are reasonable and therefore his 9.03% DCF result is on the high side of
4 reasonable for setting rates in this proceeding.

5
6 **DCF Method**

7 **Q. WHAT FORM OF THE DCF MODEL DOES MR. D'ASCENDIS USE?**

8 **A.** He uses the single stage (or constant growth) form of the DCF model.⁵⁶

9 **Q. DOES MR. D'ASCENDIS PROPERLY APPLY THE SIMPLIFIED OR**
10 **CONSTANT DCF METHOD?**

11 **A.** No. Mr. D'Ascendis adds a growth component to a divided yield even though his growth
12 analysis relies completely on analyst five-year EPS per share growth forecasts.⁵⁷ It is only
13 a DCF method if the dividend yield is computed properly, and the growth rate used is
14 derived from a careful study of what future sustainable growth in cash flow is anticipated
15 by investors. In BGWC's 2017 rate case (Docket No. 2017-292-WS) this Commission
16 concluded "Mr. D'Ascendis' use of analysts' estimates for his DCF analysis is
17 supported by consensus..."⁵⁸ Respectfully, I believe this Commission's level of support
18 for Mr. D'Ascendis' DCF method may have been too generous. As discussed above
19 (Section II), major financial institutions (J.P. Morgan Chase) do not use a growth rate based
20 on analyst 5-year EPS growth rates as Mr. D'Ascendis has done.

⁵⁶ Ibid, page 14, lines 11-12.

⁵⁷ Ibid. page 15, lines 17-18.

⁵⁸ Page 14.

1 **Q. HOW DID MR. D'ASCENDIS CALCULATE HIS GROWTH RATE FOR HIS**
2 **DCF METHOD?**

3 **A.** On page 15, lines 12-14 of Mr. D'Ascendis' testimony he says that he uses analysts' five-
4 year EPS forecast as the growth component of his DCF analysis because "investors are
5 likely to rely on...Value Line, Reuters, Zacks, and Yahoo Finance" and "Investors realize
6 that analysts have significant insight..."

7 Below are the five-year projected earnings per share rates by the four investment
8 research firms he chose:

9 Value Line:	8.50%
10 Reuters:	10.60%
11 Zacks:	8.70%
12 Yahoo Finance:	5.93% ⁵⁹

13 **Q. IS MR. D'ASCENDIS' METHODOLOGY TO DETERMINE THE GROWTH**
14 **RATE TO USE IN HIS DCF MODEL APPROPRIATE?**

15 **A.** No. As stated above, Mr. D'Ascendis uses analyst five-year earnings per share growth
16 without attempting to reconcile the retention rate used for computing growth with the
17 retention rate he used to compute the dividend yield. This is analogous to failing to
18 reconcile the money you are taking out of your checking account with your future balance,
19 i.e. the basic balancing of a checkbook.

20
⁵⁹ Ibid. Schedule DWD-3, page 1 of 7.

1 **Q. CAN YOU PLEASE SUMMARIZE WHY A FUTURE ORIENTED “B X R”**
2 **METHOD IS SUPERIOR TO A FIVE-YEAR EARNINGS PER SHARE**
3 **GROWTH RATE FORECAST IN PROVIDING A LONG-TERM SUSTAINABLE**
4 **GROWTH RATE?**

5 **A.** Yes. The primary cause of sustainable earnings growth is the retention of earnings. A
6 company is able to create higher future earnings by retaining a portion of the prior year's
7 earnings in the business and purchasing new business assets with those retained earnings.
8 There are many factors that can cause short-term swings in earnings growth rates, but long-
9 term sustainable growth is caused by retaining earnings and reinvesting those earnings.
10 Factors that cause short-term swings include anything that causes a company to earn a
11 return on book equity at a rate different from the long-term sustainable rate. Assume, for
12 example, that a particular utility company is regulated so that it is provided with a
13 reasonable opportunity to earn 9.0% on its equity. Should the company experience an event
14 such as the loss of several key customers, or unfavorable weather conditions, which cause
15 it to earn only 6.0% on equity in a given year, the drop of 9% earned return on equity to a
16 6% earned return on equity would be concurrent with a very large drop in earnings per
17 share. In fact, if a company did not issue any new shares of stock during the year, a drop
18 from a 9% earned return on book equity to a 6% earned return on book equity would result
19 in a 33.3% decline in earnings per share over the period.⁶⁰ However, such a drop in earnings
20 would not be any indication of what is a long-term sustainable earnings per share growth

⁶⁰ By definition, earned return on equity is earnings divided by book value. Therefore, whatever level of earnings is required to produce earnings of 6% of book would have to be 33.3% lower than the level of earnings required to produce a return on book equity of 9%.

1 rate. If the drop were caused by weather conditions, the drop in earnings would be
2 immediately offset once normal weather conditions return. If the drop were from the loss
3 of some key customers, the company would replace the lost earnings by filing for a rate
4 increase to bring revenues up to the level required for the company to have a reasonable
5 opportunity to recover its cost of equity.

6 For the above reasons, changes in earnings per share growth rates that are caused
7 by non-recurring changes in the earned return on book equity are inconsistent with long-
8 term sustainable growth, but changes in earnings per share because of the reinvestment of
9 additional assets is a cause of sustainable earnings growth. The “ $b \times r$ ” term in the DCF
10 equation computes sustainable growth because it measures only the growth which a
11 company can expect to achieve when its earned return on book equity “ r ” remains in
12 equilibrium. If analysts have sufficient data to be able to forecast varying values of “ r ” in
13 future years, then a complex, or multi-stage DCF method must be used to accurately
14 quantify the effect. Averaging growth rates over sub-periods, such as averaging growth
15 over the first five years with a growth rate expected over the subsequent period, will not
16 provide an appropriate representation of the cash flows expected by investors in the future
17 and, therefore, will not provide an acceptable method of quantifying the cost of equity
18 using the DCF method. The choices are either a constant growth DCF, in which one “ $b \times$
19 r ” derived growth rate should be used, or a complex DCF method in which the cash flow
20 anticipated in each future year is separately estimated. Mr. D’Ascendis has done neither.

**Q. WHY ARE ANALYSTS' FIVE-YEAR CONSENSUS GROWTH RATES NOT
INDICATIVE OF LONG-TERM SUSTAINABLE GROWTH RATES?**

A. Analysts' five-year earnings per share growth rates are earnings per share growth rates that measure earnings growth from the most currently completed fiscal year to projected earnings five years into the future. These growth rates are not indicative of future sustainable growth rates, in part, because the sources of cash flow to an investor are dividends and stock price appreciation. While both stock price and dividends are impacted in the long-run by the level of earnings a company is capable of achieving, earnings growth over a period as short as five years is rarely in synchronization with the cash flow growth from increases in dividends and stock prices. For example, if a company experiences a year in which investors perceive that earnings temporarily dipped below normal trend levels, stock prices generally do not decline at the same percentage that earnings decline, and dividends are usually not cut just because of a temporary decline in a company's earnings. Unless both the stock price and dividends mirror every down swing in earnings, they cannot be expected to recover at the same growth rate that earnings recover. Therefore, growth rates such as five-year projected growth in earnings per share are not indicative of long-term sustainable growth rates in cash flow. As a result, they are inapplicable for direct use in the simplified DCF method.

**Q. IS THE USE OF FIVE-YEAR EARNINGS PER SHARE GROWTH RATES IN
THE DCF MODEL ALSO IMPROPER?**

A. Yes. A raw, unadjusted, five-year earnings per share growth rate is usually a poor proxy for either short-term or long-term cash flow that an investor expects to receive. When implementing the DCF method, the time value of money is considered by equating the

1 current stock price of a company to present value of the future cash flows that an investor
2 expects to receive over the entire time that he or she owns the stock. The discount rate
3 required to make the future cash flow stream, on a net present value basis, equal to the
4 current stock price is the cost of equity. The only two sources of cash flow to an investor
5 are dividends and the net proceeds from the sale of stock at whatever time in the future the
6 investor finally sells. Therefore, the DCF method is discounting future cash follows that
7 investors expect to receive from dividends and from the eventual sale of the stock. Five-
8 year earnings growth rate forecasts are especially poor indicators of cash flow growth even
9 over the five years being measured by the five-year earnings per share growth rate number.

10 **Q. WHY IS A FIVE-YEAR EARNINGS PER SHARE GROWTH RATE A POOR**
11 **INDICATOR OF THE FIVE-YEAR CASH FLOW EXPECTATION FROM**
12 **DIVIDENDS?**

13 **A.** The board of directors' changes dividend rates based upon long-term earnings expectations
14 combined with the capital needs of a company. Most companies do not cut the dividend
15 simply because a company has a year in which earnings were below sustainable trends, and
16 similarly they do not increase dividends simply because earnings for one year happened to
17 be above long-term sustainable trends. Therefore, over any given five-year period, earnings
18 growth is frequently very different from dividend growth. In order for earnings growth to
19 equal dividend growth, at a minimum, earnings per share in the first year of the five-year
20 earnings growth rate period would have to be exactly on the long-term earnings trend line
21 expected by investors. Since earnings in most years are above or below the trend line, the
22 earnings per share growth rate over most five-year periods is different from what is
23 expected for dividend growth.

1 **Q. WHY IS THE FIVE-YEAR EARNINGS PER SHARE GROWTH RATE A POOR**
2 **INDICATION OF FUTURE STOCK PRICE GROWTH?**

3 **A.** If a company happens to experience a year in which earnings decline below what investors
4 believe are consistent with the long-term trend, then the stock price does not drop as much
5 as earnings drop. Similarly, if a company happens to experience a year in which earnings
6 are higher than the investor-perceived long-term sustainable trend, then the stock price will
7 not increase as much as earnings. In other words, the P/E ratio of a company will increase
8 after a year in which investors believe earnings are below sustainable levels, and the P/E
9 ratio will decline in a year in which investors believe earnings are higher than expected.
10 Since it is stock price that is one of the important cash flow sources to an investor, a five-
11 year earnings growth rate is a poor indicator of cash flow both because it is a poor indicator
12 of stock price growth over the five years being examined and is equally a poor predictor of
13 dividend growth over the same period.

14 **Q. ARE YOU SAYING THAT ANALYSTS' CONSENSUS EARNINGS PER SHARE**
15 **GROWTH RATES ARE USELESS AS AN AID TO PROJECTING THE**
16 **FUTURE?**

17 **A.** No. Analysts' EPS growth rates are, however, very dangerous if used in a simplified DCF
18 without proper interpretation. While they are not useful if used in their "raw" form, they
19 can be useful in computing estimates of what earned return on equity investors expect will
20 be sustained in the future, and as such, are useful in developing long-term sustainable
21 growth rates.

Risk Premium Method

Q. PLEASE EXPLAIN MR. D'ASCENDIS' VERSION OF THE RISK PREMIUM METHODS, AS PRESENTED IN HIS DIRECT TESTIMONY.

A. Mr. D'Ascendis applies the following two risk premium methods: Predictive Risk Premium Model (PRPM) and "total market approach."⁶¹ His PRPM is based on research showing that the level of volatility in equity prices and returns can be used to predict future levels of risk premiums.⁶² The model inputs include historical returns of the common equity of the companies in his "Utility Proxy Group" minus the historical monthly yield on long-term U.S. Treasury securities through July 2019.⁶³ Statistical software was used to determine the projected equity risk premium for each of the water companies in Mr. D'Ascendis' Utility Proxy Group, which range between 10.21% for California Water Service Group to 12.64% for York Water.⁶⁴ The risk-free rate component of 2.91% is based on the consensus forecast derived from Blue Chip Financial Forecasts.⁶⁵ Adding the predicted risk premium to the risk free rate for each of the 6 companies in his proxy group results in a PRPM based 10.97% cost of equity.⁶⁶

Mr. D'Ascendis' total market approach RPM adds a prospective public utility bond yield to an equity risk premium.⁶⁷ The equity risk premium is based on beta-adjusted total

⁶¹Ibid. page 16, lines 1-12.

⁶² Ibid. lines 5-12.

⁶³ Ibid. page 17, lines 17-19.

⁶⁴ Ibid. Schedule DWD-4, page 2 of 12.

⁶⁵ Ibid. Schedule DWD-5, page 2 of 2, note 2.

⁶⁶ Ibid. Schedule DWD-4, page 2 of 12.

⁶⁷ Ibid. page 18, lines 14-16.

1 market equity risk premium and an equity risk premium based upon S&P Utilities Index.⁶⁸

2 He determines the prospective bond yield based on the consensus forecasts of about 50
3 economists of Aaa rated corporate bonds (3.90%) and then increases this result by 0.37%
4 to be equivalent to A2 rated public utility bonds (4.27%).⁶⁹ He adds an additional 0.08%
5 to the prospective bond yield to get a 4.35% "expected bond yield for his Utility Proxy
6 Group"⁷⁰ because his Utility Proxy Group has a lower A2/A3 bond rating.⁷¹ He calculated
7 equity risk premium of 5.45% based on the average of the following two approaches:

8 Beta approach: 5.91%

9 Average of Ibbotson historical risk premiums (5.54%), regression on
10 Ibbotson risk premium data (8.35%), Ibbotson equity risk premium based
11 on PRPM (9.05%), market return projects from Value Line (9.73%,
12 10.62%) and Bloomberg (10.48%) applied to the adjusted beta (0.66) of his
13 Utility Proxy Group.⁷²

14 S&P Utility Index and Moody's A-rated public utility bonds: 4.98%

15 Average of historical risk premiums (4.00%), regression on historical equity
16 risk premium (6.04%) and forecasted equity risk premiums (6.24% and
17 4.83%).

18 Adding this 5.45% equity risk premium to the risk-free rate for each of the 6 companies in
19 his proxy group results in a RPM based 9.80% cost of equity.⁷³

⁶⁸ Ibid.

⁶⁹ Ibid. page 19, lines 1-15.

⁷⁰ Ibid. page 19, lines 16-20 and page 20, lines 1-2.

⁷¹ Ibid.

⁷² Ibid. Schedule DWD-4, page 8 of 12.

⁷³ Ibid. Schedule DWD-4, page 3 of 12.

Mr. D'Ascendis used the average (10.39%) of the two risk premium results as support for his cost of equity recommendation.⁷⁴

Q. PLEASE COMMENT ON MR. D'ASCENDIS' RISK PREMIUM METHODS.

A. Mr. D'Ascendis' RPM results are too high (above rates indicated by market data) primarily because his overall market result expectations are above. The market expects less than a 32% probability of growth in the S&P 500 will provide a market return of 10.55%⁷⁵. Investors expect a return of 11.62%⁷⁶ and 14.52%⁷⁷, as proposed by Mr. D'Ascendis to be even more unlikely. Therefore, Mr. D'Ascendis' RPM results are unreliable and significantly overstate BGWC's cost of equity

CAPM Method

Q. PLEASE SUMMARIZE MR. D'ASCENDIS' CAPM METHOD.

A. Mr. D'Ascendis explains that, "The model is applied by adding a risk-free rate of return to a market risk premium, which is adjusted proportionally to reflect the systematic risk of the individual security relative to the total market as measured by the beta coefficient."⁷⁸

The traditional CAPM model is expressed as:

$$R_s = R_f + p(R_m - R_f) \dots \text{Where:}$$

$$R = \text{Return rate on the common stock}$$

$$R_f = \text{Risk-free rate of return}$$

$$R_m = \text{Return rate on the market as a whole}$$

$$\beta = \text{adjusted beta (volatility of the security relative to the market)}$$

⁷⁴ Ibid. pages 26, lines 1-5.

⁷⁵ Exhibit ALR 5, page 3.

⁷⁶ D'Ascendis Corrected Direct Testimony, page 20, lines 20-21.

⁷⁷ Ibid. page 23, line 13.

⁷⁸ Ibid. page 26, lines 16-19.

as a whole)" ⁷⁹

He uses a risk-free rate of 2.91% based on the Blue Chip consensus forecast of 30-Year U.S. Treasury bond yields.⁸⁰ The risk premium portion of his CAPM analysis (shown on Schedule DWD-5, Page 2 of 2) is 10.03%⁸¹ which is derived from an average of the following components:

- Historical: 8.80% (Ave of Measure 1, 2 and 3);

Measure 1: 6.77%

The arithmetic mean monthly returns of large company stocks relative to long-term U.S. Treasury bond yields from 1926-2018;

Measure 2: 9.42%

Regression analysis applied to Ibbotson historical data (1926-2018);

Measure 3: 10.2%

Application of PRPM⁸² to historical data (1926-2018).

- Value Line Projected: 11.20% (Ave of Measure 4 and 5);

Measure 4: 10.72%

Value Line projected return on market (13.63%)⁸³ – Projected Risk Free Rate (2.91%).

Measure 5: 11.61%

Value Line projected return on S&P 500 (14.52%) – Projected Risk Free Rate (2.91%).

⁷⁹ Ibid. page 26, line 19 and page 27, lines 1-6.

⁸⁰ Ibid. page 30, lines 3-8.

⁸¹ Ibid. Schedule DWD-5, page 2 of 2.

⁸² See description of Mr. D'Ascendis' PRPM in my critique of his Risk Premium Method above.

⁸³ 3-5 years hence.

- Bloomberg Projected MRP: 11.47% (Measure 6);

Bloomberg projected return on S&P 500 (14.38%) – Projected Risk
Free Rate (2.91%).

Q. PLEASE SUMMARIZE MR. D'ASCENDIS' ECAPM METHOD.

A. Mr. D'Ascendis' ECAPM is based on a security market⁸⁴ line that is not as steeply sloped as described by the CAPM formula.⁸⁵ The revised security market line used in his ECAPM results in higher cost of equity (10.34%) results for water utility companies than his "traditional CAPM" (9.47%).⁸⁶

Q. DO YOU AGREE WITH THE RESULTS OF MR. D'ASCENDIS' CAPM AND ECAPM ANALYSES?

A. No, I do not agree with results of either of Mr. D'Ascendis' CAPM analyses because I believe that they significantly and inaccurately overstate the Company's cost of equity. The arithmetic average return that Mr. D'Ascendis uses overstates the historical risk premium by 300 basis points. Mr. D'Ascendis used the arithmetic mean returns of 11.89% for large company stocks between 1926 and 2018.⁸⁷ The 2019 SBBI Yearbook shows that investors actually earned a compounded annual return of 10.0%⁸⁸ between 1926 and 2018. The arithmetic mean return of 11.89%⁸⁹ is possibly valuable to stock brokers and fund managers attempting to predict future bonuses, but not for calculating the cost of equity. A Dow Jones Newswire article stated, "Some financial advisers rely too heavily on a formula

⁸⁴ The security market line is systematic risk, as measured by beta, plotted against expected return of the market.

⁸⁵ D'Ascendis Corrected Direct Testimony, Schedule DWD-5, page 1 of 2.

⁸⁶ Ibid. Schedule DWD-5, page 1 of 2.

⁸⁷ Ibid. Schedule DWD-5, Page 2 of 2.

⁸⁸ 2019 SBBI Yearbook, page 2-3.

⁸⁹ D'Ascendis Corrected Direct Testimony, Schedule DWD-5, Page 2 of 2.

1 known as the arithmetic average, which can be misleading when investing for the long
2 term. Financial advisors who use this formula may be overstating your potential profit and
3 leading you to take risks you might otherwise avoid...”⁹⁰

4 As discussed in Section V. E of this testimony, stock options traded on the S&P
5 500 indicate that a market risk premium of between 8% and 9% is conservatively high. The
6 market expects less than a 32% probability of growth in the S&P 500 that would result in
7 a risk premium of between 8% and 9%. Investors expect a growth rate equivalent to a
8 10.03%⁹¹ market risk premium to be even more unlikely. Therefore, Mr. D’Ascendis’
9 CAPM results are unreliable and significantly overstate BGWC’s cost of equity based on
10 market data.

11 **MR. D’ASCENDIS’ RISK ADJUSTMENT**

12 **Q. IS MR. D’ASCENDIS’ ADDER FOR A SMALL SIZE EFFECT AN**
13 **APPROPRIATE PART OF A COST OF EQUITY ANALYSIS FOR A PUBLIC**
14 **UTILITY?**

15 **A.** No. Mr. D’Ascendis’ 0.50% premium adder for the small size of BGWC relative to the
16 average capitalization of the Water Proxy Group is not justifiable. Mr. D’Ascendis states
17 that “size has a bearing on business risk”⁹² because they are “less able to cope with
18 significant events that affect sales, revenues, and earnings”⁹³
19

⁹⁰ Kaja Whitehouse, To Financial Advisors and Fuzzy Math, Dow Jones Newswires October 8, 2003.

⁹¹ D’Ascendis Corrected Direct Testimony, Schedule DWD-5, Page 2 of 2.

⁹² Ibid. page 38, lines 12-19.

⁹³ Ibid.

1 **Q. IS THERE UNIVERSAL AGREEMENT THAT SMALLER COMPANIES HAVE**
2 **A HIGHER COST OF EQUITY?**

3 A. No. *The Principles of Corporate Finance* stated that the so called “small firm” was most
4 likely supported by “data mining”. The textbook goes on to say that if you search enough
5 you are likely to find pattern. Professor Aswath Damodaran from New York University
6 states the following regarding the supposed “small cap premium”:

7 Even if you believe that small cap companies are more exposed to market risk than
8 large cap ones, this is an extremely sloppy and lazy way of dealing with that risk,
9 since risk ultimately has to come from something fundamental (and size is not a
10 fundamental factor).⁹⁴
11

12 Mr. D’Ascendis claims that BGWC’s recent reorganization was completed so that
13 the Company had access to additional resources including management expertise, sharing
14 business functions and increase access to financing. At a minimum, BGWC’s recent
15 reorganization indicates that its business risk has declined since its last rate case and
16 therefor its cost of capital has decreased as well.

17 Mr. D’Ascendis recommendation that BGWC’s cost of equity should be increased
18 by 0.50%⁹⁵ to account for its size is likely excessive. With that said, my 8.65% cost of
19 equity recommendation is on the high end of results to account for the possibly that
20 BGWC’s small size impacts the return expectations required by investors and their market-
21 based cost of equity.
22

⁹⁴Aswath Damodaran, *Equity Risk Premiums (ERP): Determinates, Estimation and Implications – The 2015 Edition* (paper updated, March 2015). Page 42.

⁹⁵D’Ascendis Corrected Direct Testimony, page 36, lines 27-28.

VII. CONCLUSION

Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS IN THIS CASE.

A. Based on the evidence presented in my testimony I conclude that the cost of equity allowed for the Company should be 8.65% with an overall cost of capital of 7.27% (See Table 1) based on the average common equity ratio of the Water Proxy Group. My cost of equity recommendation is based upon my applying my there cost of equity models (Constant Growth DCF, Non-Constant Growth DCF, CAPM) to a proxy group of 6 regulated utility companies. My ~~8.75%~~ ^{8.65%} cost of equity recommendation satisfies the requirements of *Hope* and *Bluefield* that regulated utility companies should have opportunity to earn a return commensurate with returns on investments in other enterprises having corresponding risks.

Mr. D'Ascendis' cost of equity recommendation of 10.20%-10.70% is unreasonably high primarily because it is based, in part, on model results applied to a group of 14 companies (Non-Price Regulated Proxy Group) that are riskier than water utilities. Additionally, the equity risk premium he uses in his RPM and CAPM are higher than appropriate. His Constant Growth DCF produces a result of 9.03% which on the high side of reasonable, but closer to the market-based cost of equity than any of his other methods. My recommendations are consistent with legal standards set by the United States Supreme Court and market data. My 8.65% cost of equity and an overall cost of capital (rate of return) of 7.27% will allow BGWC to raise capital on reasonable terms while fulfilling their obligation to provide safe and reliable service.

1 equity models -- EG, DCF, CAPM -- among other
2 topics, are invalid and should be rejected.

3 If adopted, my rate of return recommendation
4 would allow BGWC to raise the capital it needs to
5 provide safe and reliable service, because my
6 recommendations are consistent with investors'
7 expectations.

8 Definition of the "cost of equity": Mr.
9 D'Ascendis claims that I do not believe the cost of
10 equity should be based on expected market
11 conditions. He is mistaken. As discussed
12 throughout my direct testimony, my cost of equity
13 recommendation is based on the forecasts
14 represented in market prices and -- and a direct
15 measurement of investors' expectations. The cost
16 of equity should be based on investor expectations
17 including what they expect market conditions will
18 be in the future.

19 Application of DCF model: Mr. D'Ascendis --
20 Mr. D'Ascendis claims that my application of the
21 constant growth DCF is flawed because I relied on
22 the sustainable growth methodology. I will respond
23 to four of his specific criticisms.

24 Number one, "Relies on short-term security
25 analyst forecasts." Mr. D'Ascendis claims that I

1 **II. DEFINITION OF THE COST OF EQUITY**

2
3 **Q. ON PAGES 45-51 OF HIS REBUTTAL TESTIMONY, MR. D'ASCENDIS STATES**
4 **THAT YOU DO NOT BELIEVE THE COST OF EQUITY SHOULD BE BASED**
5 **ON EXPECTED MARKET CONDITIONS. PLEASE RESPOND.**

6 **A.** Mr. D'Ascendis' interpretation is incorrect. I believe the cost of equity should be based
7 on investor expectations, including what they expect market conditions will be in the
8 future. As discussed throughout my Direct Testimony, my cost of equity
9 recommendation is based on the forecasts represented in market prices and direct
10 measurements of investors' expectations. My market-based approach is superior to using
11 "expert" forecasts (e.g. Blue Chip Financial Forecasts) -- instead of what the market
12 expects as indicated by market data -- for the following reasons. First, the actual cost of
13 equity BGWC will pay when it raises money will be determined by the market and not by
14 financial publications. Second, evidence supports that predicting capital markets (e.g.
15 interest rates, stock prices) is virtually impossible.¹

16 **Q. IS YOUR APPROACH TO CALCULATING THE COST OF CAPITAL**
17 **CONSISTENT WITH THE FINANCIAL LITERATURE QUOTED IN MR.**
18 **D'ASCENDIS' REBUTTAL TESTIMONY REGARDING THE DEFINITION OF**
19 **THE COST OF CAPITAL?**

¹ Daniel Kahneman, *Thinking Fast and Slow* (New York: Farrar, Straus and Giroux, 2011): 215.

1 **A.** Yes. Mr. D'Ascendis provides quotations from financial textbooks and consulting firms
2 that he claims show I am mistaken that the cost of capital should be market-based. The
3 quotes he provides on pages 46-47 of his Rebuttal Testimony mostly stress that the cost
4 of capital should be based on investors' expectations, which is a concept that forms the
5 foundation of my approach to calculating the cost of equity. My market-based Capital
6 Asset Pricing Model, ("CAPM") utilizes stock option data because it measures investor
7 expectations directly. My Discounted Cash Flow ("DCF") results represent investor
8 expectations because it uses the prices investors are willing to pay for water utility stocks
9 based on their expectations.

10 **III. APPLICATION OF CONSTANT GROWTH DCF**

11 **Q.** **PLEASE SUMMARIZE MR. D'ASCENDIS' CRITICISM OF YOUR**
12 **APPLICATION OF DCF METHOD.**

13 **A.** Mr. D'Ascendis makes the following criticisms of my constant growth DCF method:

- 14 1. Relies on short-term security analyst forecasts;
- 15 2. Growth methodology is circular;
- 16 3. Ignores the basic principle of rate base / rate of return regulation;
- 17 4. External financing growth rate.

18 **Q.** **PLEASE COMMENT ON MR. D'ASCENDIS' CLAIM THAT YOUR DCF**
19 **METHOD RELIES ON SHORT-TERM SECURITY ANALYST FORECASTS**
20 **THAT ARE NO LONGER THAN THE ONES HE USES IN HIS DCF ANALYSIS.**

1 **A.** The DCF growth component of my DCF method is different, and superior, to the one
2 used by Mr. D'Ascendis. My sustainable growth method uses these "short-term" analyst
3 forecasts to derive a sustainable long-term growth rate. Mr. D'Ascendis mechanically
4 uses these "short-term" forecasts (analyst earnings per share growth rates) as a proxy for
5 long-term growth without making the necessary adjustments required to obtain
6 sustainable growth.

7 As discussed in my Direct Testimony, sufficient care must be taken to be sure that
8 the growth rate "g" is representative of the constant sustainable growth required for the
9 answer from the constant growth form of the DCF model to be meaningful. My DCF
10 method assures the mathematical relationship between earnings, dividends, book value
11 and stock price is respected. Mr. D'Ascendis' DCF method does not.

12 **Q.** **ON PAGES 58-62 OF HIS REBUTTAL, MR. D'ASCENDIS CLAIMS THAT**
13 **EARNINGS PER SHARE GROWTH ARE THE SUPERIOR OPTION IN**
14 **SELECTING PROJECTED GROWTH IN A DCF MODEL. HOW DO YOU**
15 **RESPOND?**

16 **A.** I disagree. A study conducted by McKinsey & Company in 2010 found that "analysts
17 have been persistently over optimistic for the past 25 years with estimates ranging from
18 10 to 12 percent a year, compared with actual earnings growth."

19 On average, analysts' forecasts have been almost 100 percent too high.

1 Capital markets, on the other hand, are notably less giddy in their predictions.
2 Except during the market bubble of 1999-2001, actual price-to-earnings ratios have been
3 25 percent lower than implied P/E ratios based on analyst forecasts.

4 Even if equity analysts' forecasts are not upwardly biased, as discussed in my
5 Direct Testimony, adding earnings per share growth forecasts to a dividend yield without
6 considering the retention rate produces a flawed result.

7 **Q. PLEASE COMMENT ON MR. D'ASCENDIS' CLAIM THAT YOUR DCF**
8 **METHOD IS FLAWED BECAUSE IT IS CIRCULAR.**

9 **A.** Mr. D'Ascendis claims that my DCF method is circular because the result (if authorized)
10 would become one of the model inputs.² His claim is false because, among other reasons,
11 my DCF results are based on companies in other jurisdictions. If authorized, my DCF
12 results would not be applied to the companies in my Water Proxy Group. There is no
13 circularity. Additionally, my DCF results are based on a point in time (December 31,
14 2019) and therefore if allowed, my DCF results could not impact investor expectations
15 ~~back in May~~ without a time machine.

16 **Q. PLEASE COMMENT ON MR. D'ASCENDIS' CLAIM THAT YOUR DCF**
17 **METHOD IGNORES THE BASIC PRINCIPLES OF RATE BASE / RATE OF**
18 **RETURN REGULATION.**

² Mr. D'Ascendis' Rebuttal Testimony, page 55, lines 3-15.

1 **A.** Mr. D'Ascendis' position is without sound foundation. My approach to estimating an
2 appropriate cost of equity for BGWC does recognize that it will be applied to book value.
3 Applying a market-based cost of equity to book value is consistent with the regulatory
4 principles of original cost ratemaking. Applying a market-based cost of equity to
5 anything other than the original cost of BGWC's investments as measured by book value
6 would violate fundamental principles of original cost ratemaking and result in
7 overcharging consumers.

8 **Q.** **DO YOU AGREE WITH MR. D'ASCENDIS' POSITION THAT THE DCF**
9 **MODEL IS NOT ACCURATE WHEN M/B RATIOS ARE NOT AT UNITY?**

10 **A.** No, I do not. The cost of capital is market-based. The price investors are willing to pay
11 for a stock in relation to what they expect to receive in return is the information that is
12 used to determine the cost of equity. For example, if investors are willing to pay more
13 than book value for a utility company that investors expect will earn a return on book
14 equity of 9%, this means that investors require less than a 9% return to be convinced to
15 buy shares of this company. Just as the market yield on a bond decreases when investors
16 bid up the market price of a bond, the yield also decreases for a common stock
17 investment when the stock price goes up. The DCF model is specifically designed to
18 recognize the difference in the value of earnings paid out as a dividend and retained
19 earnings. A properly applied DCF model maintains its accuracy irrespective of the
20 market-to-book ratio.

21 **Q.** **DO YOU AGREE WITH MR. D'ASCENDIS' CRITICISM OF YOUR**
22 **CALCULATION OF THE AVERAGE EXTERNAL FINANCING RATE, OR "S"**

1 **IN YOUR BR+SV FORMULA, WHICH IS PART OF YOUR CONSTANT**
2 **GROWTH DCF METHODOLOGY?**

3 **A.** No. Mr. D'Ascendis' criticism is solely based on a mistaken interpretation of my
4 intentions based on footnote [B] of Schedule ALR 5, page 5. The footnote he refers to
5 states that negative values for growth are excluded from Column 10 of my schedule. The
6 average financing rate I use of 0.63% comes from Column 11 of my schedule, which is
7 an average of the overall annual growth rates of all six companies in my water proxy
8 group from 2014 to the 2023 Value Line projections.

9 Two other approaches I considered for calculating the sustainable rate of external
10 financing was to take the median of the six data points, which is 0.54%, or to take the
11 average excluding the high and low, which is 0.41%. The approach of removing the two
12 negative numbers suggested by Mr. D'Ascendis would also call for the removal of the
13 abnormally high value for Aqua America, resulting in an average of 0.56%. In the end, I
14 concluded that with the relatively small number of companies in my proxy group and
15 considering Value Line provides data spanning nine years, the best approach was to take
16 an average of all available data for all six companies, allowing any and all irregularities
17 across companies and years to balance each other out.

18 **IV. APPLICATION OF THE CAPM**
19

20 **Q. PLEASE SUMMARIZE MR. D'ASCENDIS' CRITICISMS OF YOUR CAPM.**

1 A. Mr. D'Ascendis states that he has at least four concerns with the application of the
2 CAPM. His concerns are:

- 3 1. Use of current and not forecasted interest rates
- 4 2. Use of option-implied betas
- 5 3. Predictions contradict my prior testimony
- 6 4. Failure to use the ECAPM.

7 **1. Use of Current and not Forecasted Interest Rates**

8 I agree with Mr. D'Ascendis that "ratemaking and the cost of capital are prospective in
9 nature, i.e., forward looking." However, as discussed further below, it is appropriate to
10 use the current yields of U.S. Treasury bonds as the risk-free rate in the CAPM because
11 the price of bonds, and their corresponding yields, are based on investor expectations.

12 **2. Option-Implied Beta**

13 **Q. PLEASE SUMMARIZE THE REASONS MR. D'ASCENDIS USES TO SUPPORT**
14 **HIS POSITION THAT OPTION-IMPLIED BETAS ARE NOT APPLICABLE TO**
15 **YOUR WATER PROXY GROUP AND THAT THE COMMISSION SHOULD**
16 **REJECT THE USE OF OPTION-IMPLIED BETAS FOR COST OF CAPITAL**
17 **PURPOSES IN GENERAL.**

18 A. Mr. D'Ascendis provides four arguments to support his conclusions, and they are as
19 follows:

- 20 1. He implies (though he does not directly state) that option-implied betas are only
21 useful when companies are undergoing fundamental change.

2. He states that “option-implied betas have relative difficulty when the ex-post (i.e., historical) betas are far from unity and performs [sic] better with higher beta stocks,” and thus implies that they^{are} not applicable or valid in the case of my water proxy group.

3. He argues that there isn’t enough liquidity in the options market for the companies in my water proxy group to give validity to the beta calculations in this case.

4. He argues that the authors of the paper I relied upon to calculate option-implied betas³ “do not endorse the use of option-implied betas as calculated by Mr. Rothschild for cost of capital purposes.”

Q. DO YOU AGREE WITH THE FOUR ARGUMENTS PROVIDED BY MR. D’ASCENDIS?

A. No. I strongly and unequivocally disagree with Mr. D’Ascendis’ arguments 1, 2, and 4 regarding the use of option-implied betas in this particular case or for cost of capital purposes in general. The third argument about liquidity allows more room for subjectivity and should definitely be considered on a case by case basis, but I disagree with Mr. D’Ascendis’ conclusion on this point as well as it applies to my water proxy group. I will address each of Mr. D’Ascendis’ four arguments in turn.

Q. ARE OPTION-IMPLIED BETAS ONLY USEFUL WHEN COMPANIES ARE UNDERGOING FUNDAMENTAL CHANGE, AS IMPLIED BY MR. D’ASCENDIS?

³ Bo-Young Chang, Peter Christoffersen, Kris Jacobs, and Gregory Vainberg, “Option-Implied Measures of Equity Risk”, Review of Finance, March 1, 2011.

1 **A.** No. Option-implied betas are calculated using only the most recent option trading data
2 available for a company and its selected beta index. This makes them entirely
3 independent from the historical pricing of that company's stock or its historical volatility,
4 and thus intrinsically "forward-looking." Option-implied betas are not a perfect
5 prediction of the future, but they represent the most up-to-date assessment and measure of
6 the risk expected by investors at any given time on a purely forward-looking basis. This
7 is valuable and useful for numerous purposes.

8 As per the quote selected by Mr. D'Ascendis on page 67, lines 1-9 of his Rebuttal,
9 from the paper I relied upon to calculate option-implied betas,⁴ "This may be an
10 important advantage when a company experiences major changes in its operating
11 environment or capital structure, in which case historical return data do not constitute a
12 reliable source for estimating betas." But to interpret that this means that option-implied
13 betas are exclusively useful when "companies are undergoing fundamental change," as
14 Mr. D'Ascendis suggests, is indisputably incorrect and not what the authors of the paper
15 intended to imply.

16 When no historical data is available, option-implied betas may in fact be the only
17 way available to calculate beta and risk. But even when historical data is available, this
18 forward-looking measurement of beta and overall risk can be much more reliable than a
19 five-year historical average which can take literally years to reflect even a permanent
20 change that may have an immediate effect on the level of risk perceived by investors.

⁴ Ibid., pg. 386.

1 Market, industry, regulatory, and general economic conditions, among numerous
2 other factors, are always in flux and exert constant influence on the operations of a
3 company. Their combined effect on the financial performance of such a company,
4 whether gradual or abrupt, is very complex. Even without fundamental changes taking
5 place, forward-looking option-implied betas are one of the best ways available to
6 quantify the combined effect of all such market forces on the overall risk expected by
7 investors at any given moment.

8 In summary, Mr. D'Ascendis' implied conclusion that option-implied betas are
9 only useful when "companies are undergoing fundamental change" is incorrect, is a
10 misinterpretation of what the authors of the paper intended, and should be disregarded.

11 **Q. ARE OPTION-IMPLIED BETAS FOR COMPANIES WITH HISTORICAL**
12 **BETAS THAT ARE FAR FROM UNITY INCORRECT OR UNRELIABLE AS A**
13 **GAUGE FOR MARKET-BASED RISK PERCEIVED BY INVESTORS, AS**
14 **IMPLIED BY MR. D'ASCENDIS?**

15 **A.** No. The two references to the paper I relied upon to calculate option-implied betas⁵ that
16 Mr. D'Ascendis uses to seek to discredit my use of option-implied betas do not actually
17 speak to the ability of option-implied betas to reflect current investor sentiment or their
18 perception of risk. The references, stating that "option-implied betas have relative
19 difficulty when the *ex post* beta is far from unity" and that "option-implied beta performs
20 better for higher beta stocks"⁶ are both from a section of the paper entitled "4.5

⁵ Ibid.

⁶ Ibid., pg. 417.

1 ANTICIPATING *EX POST* REALIZED BETA,” which in the words of the authors,
2 assesses “the ability of option-implied beta to anticipate changes in future beta.”⁷ “*Ex*
3 *post*” beta refers to the future beta from the point in time at which any given option-
4 implied beta is calculated. The relative difficulties and better performance referred to in
5 this section all refer to the accuracy with which option-implied betas are able to predict or
6 exactly match the actual beta of a stock going forward.

7 As an aside, there are numerous ways to calculate beta, including for this *ex post*
8 time horizon, so attempting to match future beta may well come down to finding the right
9 combination of variables. Some of the variables that can affect the precise value of beta
10 include the period of time for calculating returns, whether to use daily, weekly, or
11 monthly returns, and beta adjustments, such as that used by Value Line, among others. In
12 fact, in the same section, the paper states that “The performance of the option-implied as
13 well as hybrid betas improves when forecasting 1- and 2-year *ex post* betas,”⁸ and notes
14 that “the approach commonly used for historical betas that shrinks the betas toward unity
15 may lessen this effect [of making *ex post* betas far from unity less predictable].”⁹

16 But while the ability to predict future beta precisely is very relevant to traders or
17 algorithms that may rely on option-implied betas as accurate predictors of the future, in
18 the end, this is not so relevant for cost of capital purposes. As stated previously, option-
19 implied betas are not a crystal ball to see into the future, but rather they are a reflection of
20 the overall risk expected by investors for a particular company at a particular moment in

⁷ Ibid., pg. 413.

⁸ Ibid., pg. 414.

⁹ Ibid., pg. 417.

1 time. And this is of the utmost importance and relevance to cost of capital calculations,
2 regardless of whether those current market expectations come to pass or not.

3 As a result, regardless of their ability to accurately forecast the future or of our
4 ability to determine the best scope they are forecasting, option-implied betas remain one
5 of the best tools we have available to measure current investor expectations of risk. Mr.
6 D'Ascendis' misinterpretation of the authors' comments on this point should be
7 disregarded.

8 **Q. IS MR. D'ASCENDIS' ASSESSMENT OF THE LIQUIDITY OF THE OPTIONS**
9 **MARKET OF THE COMPANIES IN YOUR WATER PROXY GROUP**
10 **CORRECT?**

11 **A.** No. While liquidity is definitely an important issue when dealing with options and
12 should always be carefully monitored, Mr. D'Ascendis' claim that based on my
13 workpapers, "the average proxy group company had 13 call options and nine put options
14 traded throughout his option-implied beta calculation" is absolutely incorrect. The
15 numbers he is referring to represent the average number of strike prices per company per
16 calculation date with valid call and put options (i.e., out-of-the-money, non-zero bids),
17 respectively, and not the number of individual call or put option contracts used, as he
18 claims.

19 For the sake of clarity, I analyzed the data used in my option-implied beta
20 calculations for the six companies in my water proxy group in November and December

1 2019 in greater detail.¹⁰ The methodology started with a total average of 645 call and put
2 option strike prices for all six companies for each calculation date. Each strike price can
3 represent from a small handful to several hundred option contracts, each representing the
4 right to buy or sell 100 shares. The total average open interest on each calculation date in
5 these two months was 25,387, representing the right to buy or sell more than 2.5 million
6 shares. After filtering for non-zero bids and using only out-of-the-money options,
7 approximately one quarter of the strike prices are ultimately used for the calculation of
8 betas, representing approximately two-thirds of the trading volume and one half of the
9 open interest. It is also important to note that even strike prices with zero volume on a
10 given date can provide valuable data as long as there are valid bids and open interest at
11 that strike price.

12 The concept of adequate liquidity can be somewhat subjective and subject to
13 debate, but in my estimation the numbers above represent enough data points to produce
14 a reliable option-implied beta in this case. Furthermore, even though calculating option-
15 implied betas as of the most recently available trading date should be sufficient, I prefer
16 to calculate these betas going back a couple of months at least to identify trends and to
17 reinforce the validity of the calculations, as each calculation is completely independent of
18 the next, unlike beta calculations based on historical returns.

19 While the number of strike prices with valid options for water companies does
20 pale in comparison to the number of strike prices with valid options for the S&P 500, as

¹⁰ All underlying source data has been provided to Mr. D'Ascendis along with the workpapers of my original testimony.

1 Mr. D'Ascendis points out, this is also the case when comparing the volume of stock
2 trades of any water company vs. the S&P 500. The average volume of the six water
3 companies in my proxy group on December 31, 2019 was 436,983 compared to
4 2,893,810,000 for the S&P 500. This multiple of almost 7,000x certainly does not mean
5 that we should question the validity of the stock price of these water companies.

6 Mr. D'Ascendis' erroneous interpretation of the numbers in my workpapers completely
7 invalidates his statements and argument regarding liquidity, which should be disregarded.

8 **Q. DO YOU AGREE THAT THE AUTHORS OF THE PAPER YOU RELIED UPON**
9 **TO CALCULATE OPTION-IMPLIED BETAS¹¹ “DO NOT ENDORSE THE USE**
10 **OF OPTION-IMPLIED BETAS AS CALCULATED BY YOU FOR COST OF**
11 **CAPITAL PURPOSES,” AS ARGUED BY MR. D’ASCENDIS?**

12 **A.** No. To begin with, in the same paragraph as the quote cited by Mr. D'Ascendis on page
13 68, lines 4-7 of his Rebuttal, the authors state that the “option-implied beta approach
14 allows for the computation of a complete term structure of beta for each company so long
15 as the options data are available,”¹² so there is nothing inherent in the methodology that
16 limits it to a certain time horizon.

17 For many applications, including cost of capital, one could argue that the longer
18 the time horizon for the option-implied betas, the better. However, the limitation on the
19 forecasting horizon is always set by the longest expiration period of the options currently

¹¹ Ibid.

¹² Ibid., pg. 421.

1 traded in the market. Some companies trade options with expiration periods up to two
2 years or more into the future. The maximum expiration period for water companies
3 consistently seems to be in the neighborhood of seven to ten months. For consistency, I
4 chose to use six months for the time horizon of my option-implied betas.

5 Just because it may be better to use longer time horizons in place or in addition to a
6 six-month horizon, it does not mean that a six-month option-implied beta is of no
7 relevance or cannot be used. That would be paramount to saying you cannot use a one-
8 year Value Line EPS estimate, or that the minimum relevant forecast is two or three
9 years. In fact, for purposes of option-implied betas, it would be difficult to say if a time
10 horizon of one year, for instance, is necessarily always better than a time horizon of six
11 months. An option-implied forward-looking beta, even with a time horizon of less than
12 six-months, is still a useful tool in interpreting the current expectations of investors at any
13 given time.

14 The authors of the paper do not state that a six-month option-implied beta may
15 not or should not be used for cost of capital purposes, and ultimately it is not their role to
16 determine so. Throughout the paper, they give various ideas of how option-implied betas
17 could be used in various applications, but ultimately it is up to each field to refine the best
18 way to use them.

19 Mr. D'Ascendis' claim that the authors do not endorse the use of option-implied
20 betas as calculated by me for cost of capital purposes is incorrect and should be
21 disregarded.

1 **Q. SHOULD OPTION-IMPLIED BETAS BE USED IN COST OF CAPITAL**
2 **CALCULATIONS?**

3 **A.** Yes. For all of the reasons I have stated previously, option-implied betas are one of the
4 best tools currently available to measure the overall risk expected by investors at any
5 given moment in time, and that is fundamentally what cost of capital determinations
6 should be based on. As with other tools and methodologies we use regularly, option-
7 implied betas are not a silver bullet and should be used in conjunction with other valid
8 approaches to determine ranges of reasonableness for the cost of equity. The more valid
9 tools we use, the more we can narrow down or confirm these ranges of reasonableness to
10 ensure a more accurate result.

11 **3. Predictions contradict my prior testimony**

12 **Q. PLEASE RESPOND TO MR. D'ASCENDIS' CRITICISMS OF THE MRP**
13 **PORTION OF YOUR CAPM.**

14 **A.** Mr. D'Ascendis claims that the way I calculate the MRP potion of my CAPM contradicts
15 advice I quote from Warren Buffet in my Direct Testimony. As explained in my Direct
16 Testimony, Mr. Buffet states that nobody knows what capital markets will be in the
17 future. According to Mr. Buffet's advice, we should be cautious about using analyst
18 forecasts in cost of equity calculations. If the market is unpredictable, we should not try
19 to forecast capital markets in my MRP calculations. I do not try and forecast the market.
20 Instead, I use market data to measure what investors expect directly. Based on stock

1 options traded on the S&P 500, I was able to determine that investors expect less than a
2 32% probability of an 8.74% growth in the price of the S&P 500.

3 Mr. D'Ascendis claims that historical return data indicate that my market risk
4 premium (8.16% - 9.0%) is "unduly low." He makes this claim by comparing the ten-
5 year average market return of the S&P 500 (13.65%) to the market return expectation
6 used in my CAPM (10.55%). Historical data is helpful in calculating the cost of equity
7 only if investors expect the future to be like the past. According to stock options traded
8 on the S&P 500, investors expect the S&P 500 will most likely (68.3% chance) provide a
9 return of 10.55% or lower.

10 **4. Failure to use ECAPM**

11 **Q. MR. D'ASCENDIS LISTS YOUR FAILURE TO USE THE ECAPM AMONG HIS**
12 **CONCERNS WITH THE APPLICATION OF YOUR CAPM. PLEASE**
13 **RESPOND.**

14 **A.** I do not use the ECAPM because the evidence supporting its use is inconclusive. The
15 ECAPM was invented by researchers as an attempt to fix, or adjust, the CAPM based on
16 empirical evidence. Between 1931-1965, high beta stocks provided returns less than
17 predicted by the CAPM. Over the same time period, low beta stocks provided returns
18 greater than predicted by CAPM. The ECAPM offers a simple solution – increase return
19 expectations for lower beta stocks and decrease return expectations of high beta stocks.
20 This ECAPM fix is valid only if it is in response to a fundamental characteristics of stock
21 returns that will continue in the future. Regarding the evidence for adjusting the CAPM

(e.g. using the ECAPM), *Principles of Corporate Finance*, a leading financial textbook used in business schools around the world, is cautious. The text book states:

...it is hard to judge how seriously the CAPM is damaged...The relationship among stock returns and firm size and book-market ratio has been well documented. However, if you look long and hard at past returns, you are bound to find some strategy that just by chance would have worked in the past.¹³

V. CURRENT MARKET ENVIRONMENT

Q. PLEASE SUMMARIZE MR. D'ASCENDIS' COMMENTS REGARDING MY INTERPRETATION OF CURRENT CAPITAL MARKETS.

A. In response to Mr. D'Ascendis' rebuttal testimony, I will address the following topics regarding my interpretation of current capital markets:

1. Stocks are expensive (high price to earnings ("P/E") ratios);
2. Interest rates (still historically low interest rates);
3. Low credit spreads;
4. Volatility Expectations;
5. Will the cost of equity remain low?

1. Stocks are expensive (high price to earnings ("P/E") ratios)

¹³ Brealey, Myers, and Allen (2017), *Principles of Corporate Finance*, 12th Edition, McGraw-Hill Irwin, New York, page 206.

1 **Q. DO YOU AGREE WITH MR. D'ASCENDIS' POSITION THAT AN INCREASE**
2 **IN THE WATER PROXY GROUP P/E RATIOS 2017 TO 2020 INDICATES A**
3 **HIGHER COST OF EQUITY THAN IN BGWC'S LAST RATE CASE?**

4 **A.** First of all, I agree with Mr. D'Ascendis that just because water utility P/E ratios have
5 increased by over 30% since BGWC's last rate case does not necessarily mean that the
6 cost of equity for BGWC has decreased. If P/E ratios were all that was needed to
7 calculate the cost of equity there would be no need for the DCF model or any other
8 model. I consider rising P/E ratios of water utility companies, and the overall market, as
9 one piece of information along with interest rates, credit spreads, implied volatilities,
10 among other factors.

11 Mr. D'Ascendis' conclusion that the cost of equity is increasing based on an
12 increasing EPS growth rate is flawed, however.

13 Mr. D'Ascendis' conclusion that the cost of capital has increased since 2017 is
14 unreliable because, as explained in my Direct Testimony, the EPS growth rates he uses
15 are unreliable.

16 **2. Interest rates (still historically low interest rates)**
17

18 **Q. MR. D'ASCENDIS CLAIMS THAT RATES IN THIS PROCEEDING SHOULD**
19 **BE SET BASED ON FUTURE INTEREST RATES, NOT CURRENT INTEREST**
20 **RATES. PLEASE RESPOND.**

1 **A.** I agree with Mr. D’Ascendis that “ratemaking and the cost of capital are prospective in
2 nature, i.e., forward looking.” His claim that economic forecasts must be prioritized over
3 current bond yields is false however, because these market-based yields are based on
4 investor expectations. As explained in my Direct Testimony, the yields on 30-year U.S.
5 Treasury bonds are market-based and therefore reflect investors’ expectations. Since
6 bond prices and yields are inversely related, an investor who expected long-term interest
7 rates to increase soon would not purchase 30-year U.S. treasuries because they would
8 lose money. In a liquid market like those for 30-Year U.S. Treasury bonds, the yield
9 reflects interest rate expectations of the marketplace. In other words, current market data
10 indicates what investors’ expect market conditions will be in the future.

11 **3. Low Credit Spreads**
12

13 **Q.** **MR. D’ASCENDIS CLAIMS THAT CHART 5 IN MY DIRECT TESTIMONY**
14 **DOES NOT DEMONSTRATE THAT THE COST OF EQUITY HAS**
15 **DECREASED ALONG WITH INTEREST RATES BECAUSE THE CREDIT**
16 **SPREAD BETWEEN U.S. TREASURIES AND CORPORATE BONDS IS NOT A**
17 **PROXY FOR THE COST OF CAPITAL. PLEASE RESPOND.**

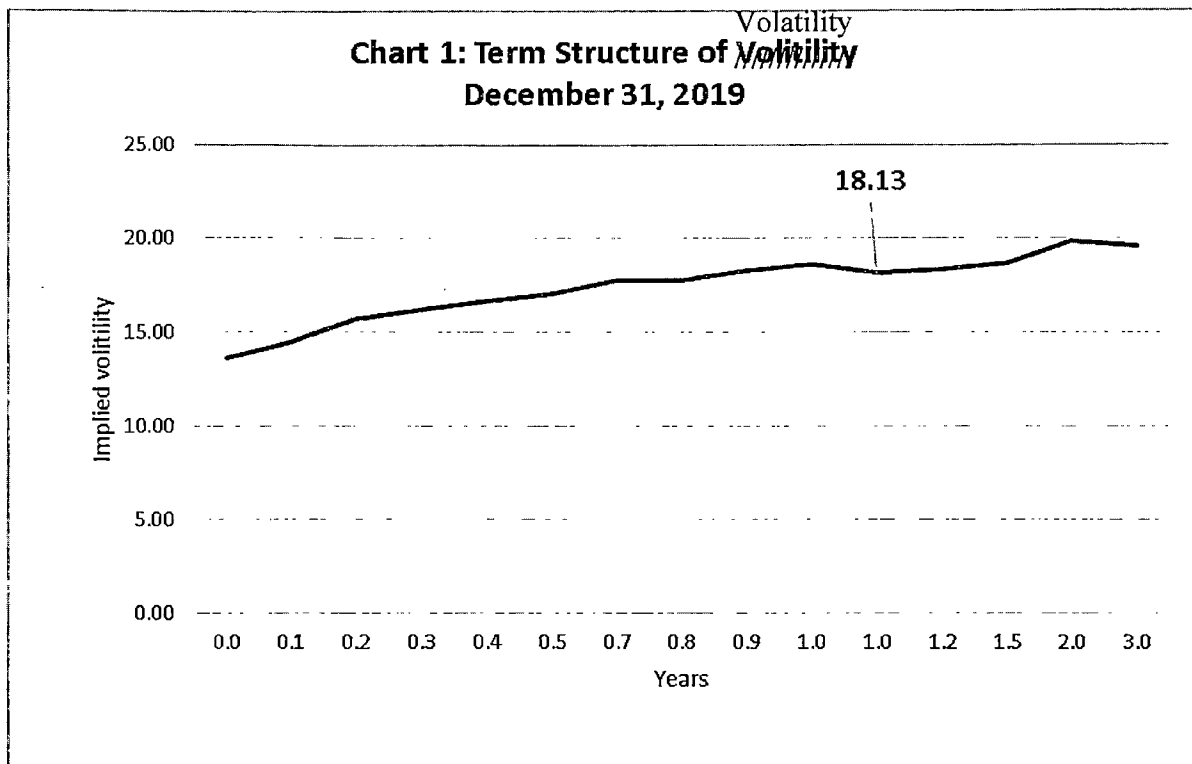
18 **A.** The analysis presented on pages 51-52 of his Rebuttal Testimony does not support his
19 claim because it does not measure how the cost of equity and credit spreads are related.
20 In order to show that the credit spreads are not a proxy for the cost of equity it would
21 require comparing credit spreads and the cost of equity. He does not do this. His

1 justification consists of a regression analysis to determine the relationship between
2 allowed returns (ROEs) and credit spreads between 2007 and 2019.

3
4 **4. Volatility Expectations**
5

6 **Q. PLEASE RESPOND TO MR. D'ASCENDIS' CLAIM THAT THE CURRENT**
7 **MARKET VOLATILITY INDEX, ("VIX") INDEX (DECEMBER 31, 2019) IS**
8 **IRRELEVANT TO THE COST OF EQUITY IS THIS PROCEEDING.**

9 **A.** Mr. D'Ascendis' claims that the VIX is "irrelevant to the cost of common equity in this
10 proceeding" because it is short-term (30-days into the future) while the "cost of capital is
11 a long-term concept." Just like P/E ratios, among other market data, the VIX Index is
12 another data point that can help paint a high-level picture of capital market conditions.
13 When I implement my cost of equity models I do not use VIX Index. I use investors'
14 volatility expectations over a significantly longer time period. In fact, I use an implied
15 volatility (18.13%) in my CAPM, which is almost identical to the implied volatility
16 (18.66%) cited by Mr. D'Ascendis in his Rebuttal Testimony. He claims that volatility
17 expectations over longer time periods are more relevant to the cost of equity than shorter
18 time periods. I agree and therefore I use volatility expectations over longer time periods
19 than the VIX in my CAPM analysis. As shown in the chart below, investors expect
20 volatility to be higher in the future. Over the next few weeks investors expect market
21 volatility of under 15%. 6 months (0.5 years) out volatility expectations increase to about
22 17%. 12 months (1.0 years) out volatility expectations are about 18% and by 3-years out
23 they are about 20%.



Will the cost of equity remain low?

Q. PLEASE RESPOND TO MR. D'ASCENDIS' CLAIM THAT YOU BELIEVE THE COST OF CAPITAL SHOULD NOT BE BASED ON EXPECTED MARKET CONDITIONS.

A. Current capital markets provide the most reliable information regarding future market expectations. The price investors are willing to pay for stocks and bonds today is based on what they expect capital markets will be in the future. My market-based approach to calculating the cost of equity is "prospective in nature, i.e. forward looking", and consistent with ratemaking principles.

1 **VI. FINANCIAL RISK ADJUSTMENT**

2 **Q. PLEASE RESPOND TO MR. D'ASCENDIS' OPPOSITION TO YOUR 10 BASIS**
3 **POINT FINANCIAL RISK ADJUSTMENT.**

4 **A.** As discussed in my Corrected Direct Testimony, BGWC (8.65%) has a lower cost of
5 equity than the Water Proxy Group (8.75 %) because BGWC is proposing to use a higher
6 common equity ratio (52.91%) than the Water Proxy Group average (50.4%) and
7 therefore has a correspondingly lower risk. My financial risk adjustment is consistent
8 with the financial facts and should be used to determine BGWC's cost of equity.

9 **VIII. CONCLUSION**

10 **Q. PLEASE SUMMARIZE YOUR REACTION TO MR. D'ASCENDIS' REBUTTAL**
11 **TESTIMONY.**

12 **A.** Mr. D'Ascendis' criticisms of my Direct Testimony are unsupported and should be
13 rejected. If adopted, my cost recommendations would allow BGWC to raise the capital it
14 needs to provide safe and reliable service because my recommendations are consistent
15 with investors' return expectations.

16 **Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

17 **A.** Yes.

1 -- the pass-through mechanism.

2 Q And the -- going back to the -- your testimony that
3 the increases can be passed through -- can be
4 passed through on an annual basis in smaller
5 increments that are more palatable to customers,
6 that's consistent with the ratemaking principle of
7 gradualism in -- in increasing rates? Are you
8 familiar with that?

9 A (MORGAN) Yes. I -- I think -- I -- I believe it's
10 consistent, yes.

11 Q And that's -- and that's something we try to do
12 with utility rates; is that right, sir?

13 A (MORGAN) In general, yes.

14 Q Thank you, sir.

15 Mr. Rothschild, I -- I do have one issue to
16 ask you about, and you -- I just want to get
17 clarity on this. Isn't it the case -- and I'm
18 looking at Page 7 of your direct testimony.
19 Haven't you made an upward adjustment in your ROE
20 recommendation based on the smaller size of Blue
21 Granite?

22 A (ROTHSCHILD) I -- I chose the upper end of my
23 range. As you can see in the Table 4, the range is
24 between -- well, 746 and 875. And in terms of the
25 average of -- of the -- of that range, it was in

1 the higher end.

2 Q And you made that choice because of the smaller
3 size of the company?

4 A (ROTHSCHILD) Because of the concern as I had
5 mentioned. I haven't, in my analysis, seen
6 evidence that smaller companies have a higher cost
7 of equity. But in -- to be -- to be conservative,
8 to recognize the possibility that that's -- I went
9 to the higher end of my range.

10 Q And that -- but -- so it -- it affected your
11 opinion, the opinion you've offered the Commission
12 in this case? You believe there's enough of a
13 basis for you -- for it to affect your
14 recommendation on ROE to the company -- to the
15 Commission?

16 A (ROTHSCHILD) I think I explained my basis. That
17 -- that was -- that was my basis.

18 Q Thank you. Nothing further.

19 MR. ELLERBE: Thank you, Mr. Chairman.

20 CHAIRMAN RANDALL: Thank you. Commissioners?
21 Commissioner Belser?

22 INTERIM VICE CHAIRMAN BELSER: Thank you, Mr.
23 Chairman.

24 EXAMINATION

25 BY INTERIM VICE CHAIRMAN BELSER:

1 Q Mr. Rothschild, is there any particular reason that
2 you recommended point estimates for the company's
3 ROE and cost of capital rather than the interval
4 estimate?

5 A (ROTHSCHILD) Why did I recommend 8.65 instead of
6 -- instead of a range?

7 Q Yeah.

8 A (ROTHSCHILD) I have -- I've -- sometimes in
9 testimonies, I've provided ranges if that's
10 helpful, and often people have asked for something
11 precise. That -- that is the number that I came up
12 to based on my analysis, and I show the
13 justification. I appreciate your question, because
14 to assume that -- that this exercise is that
15 precise is an excellent question, so I think you
16 generally can't say it's 8.65 or 8.61. So there
17 are various ranges that I do show in my testimony
18 that I hope would help understand a range that's
19 reasonable.

20 Q Okay. This --

21 A (ROTHSCHILD) Does that answer your question?

22 Q Yes, sir. It does. Thank you very much.

23 COMMISSIONER HAMILTON: Thank you, Mr.
24 Chairman.

25 CHAIRMAN RANDALL: Thank you. Commissioner

1 should be around the neighborhood of \$10. The
2 company's proposed a customer fixed monthly -- or
3 -- or base facility charge for Service Territory 2
4 of \$38.58. Now, to -- in a subsequent case, if you
5 approve the 38.58, to go back down to a cost-based
6 rate in the neighborhood of 10, that would be a
7 significant shift in -- in -- in cost
8 responsibility among customers and -- and, again,
9 inconsistent with gradualism.

10 Q Thank you. Just one for you, Mr. Rothschild. You
11 were talking about your recommended rate -- I think
12 you just had with Commissioner Hamilton. You --
13 you mentioned it was 8.75. I think you were
14 originally 8.65. But you adjusted that, if I
15 understood your testimony -- and you write the day
16 you adjusted that for the change in the -- the
17 allocation of debt from 51.04 percent, I think,
18 equity to 52 and some change. I don't have that
19 number right in front of me. But is that the
20 reason for your, I guess, adjustment or shift
21 right?

22 A (ROTHSCHILD) Yes. To -- I calculated a -- a cost
23 of equity of 8.75 percent for the proxy group.

24 Q Uh-huh.

25 A (ROTHSCHILD) And the average capital structure of

- Exhibit F – includes the Company’s proposed Storm Reserve Fund charge calculation; and the Company’s proposed Tax Cut and Jobs Act (“TCJA”) one-time credit refund calculation for each water and wastewater customer
- Exhibit G – current and proposed depreciation and amortization rates

II. PROPOSED RATES AND TARIFFS

Q. PLEASE DESCRIBE THE COMPANY’S NET OPERATING INCOME AND RETURN ON RATE BASE AT PRESENT RATES.

A. The Company’s net operating income and return on rate base at existing rates, for the 12 months ended June 30, 2019, on an unadjusted and adjusted basis are provided in Schedule C and in Table 1 below. While the Company’s authorized rate of return is 8.62%,¹ it is currently earning only 0.10% on an unadjusted basis and is actually earning *negative 3%* on an adjusted basis.

Table 1

	<i>Per Books</i>	<i>As Adjusted</i>
<i>Net Operating Income</i>	\$65,859	\$(2,281,742)
<i>Gross Plant in Service</i>	\$103,656,697	\$106,257,647
<i>Accumulated Depreciation</i>	\$(16,190,845)	\$(12,489,140)
<i>Net Plant in Service</i>	\$87,465,852	\$93,768,508
<i>Deferred Charges</i>		\$4,944,662
<i>Cash Working Capital</i>	\$1,680,230	\$1,473,643
<i>Contributions in Aid of Construction</i>	\$(20,300,002)	\$(19,231,836)
<i>Accumulated Deferred Income Taxes</i>	\$(3,522,917)	\$(3,522,917)
<i>Customer Deposits</i>	\$(334,350)	\$(334,350)
<i>Plant Held for Future Use</i>		\$350,000
<i>Plant Acquisition Adjustment</i>	\$(831,278)	\$(831,278)
<i>Excess Book Value</i>		\$(435,585)
<i>Total Rate Base</i>	\$64,157,535	\$76,180,847
<i>Return on Rate Base</i>	0.10%	-3.00%

¹ Order No. 2018-802 at 35, Docket No. 2017-292-WS (Jan. 25, 2019). The Company’s authorized Operating Margin is 13.28% and authorized ROE is 10.50%. *Id.*

1 depreciation rates that better reflect the reasonable life cycle of the Company's assets and
2 better align cost recovery for the assets providing service to the customers receiving the
3 benefits of such infrastructure. In addition, Mr. Spanos has proposed a cost of removal
4 component to various depreciation rates to accommodate decommissioning and other
5 removal costs related to asset retirements. Implementation of cost of removal rates will
6 mitigate the need to request deferral of such incurred costs in future proceedings, as well
7 as better reflect appropriate regulatory cost matching principles, pairing cost recovery with
8 the customers who benefit from the asset during its useful life.

9 **Q. PLEASE IDENTIFY THE REGULATORY ASSET AND LIABILITY**
10 **AMORTIZATIONS THAT ARE REFLECTED IN THE PROPOSED RATE**
11 **INCREASE.**

12 A. Pursuant to the Commission's Order No. 2015-876 in Docket No. 2015-199-WS, Blue
13 Granite has been deferring its purchased water and wastewater treatment costs resulting
14 from rate increases implemented by its third-party providers. Included in our Application
15 is a request to recover these deferred costs of \$2,803,968 over a three-year period. The
16 Company's deferral is based on actual deferrals through June 30, 2019, and estimated
17 deferrals through December 31, 2019, and includes the unamortized balance authorized for
18 recovery in Docket No. 2017-292-WS ("2017 Rate Case").

19 Pursuant to Commission Order No. 2018-182, the Company has been deferring
20 litigation expenses related to two cases before the Administrative Law Court – the DHEC
21 Permit Denial case and the I-20 Interconnection case. We are requesting recovery of the
22 related deferred costs of \$216,773 and \$65,948, respectively, in this case, over a five-year

1 rate structure will remain the same as approved in the prior rate case, as well, maintaining
2 the consolidation of sewer service areas. The Company also proposes to maintain separate
3 designations for Sewer Collection and Treatment customers (where collection and
4 treatment are provided through Company-owned facilities) and Sewer Collection Only
5 customers (where sewer is collected by the Company and transferred to a governmental
6 body or agency or other entity for treatment).

7 However, for Water Distribution Only and Sewer Collection Only customers, the
8 Company has calculated the revenues to be recovered from its pro-forma purchased water
9 and sewer treatment expenses and generated Purchased Water Supply and Purchased Sewer
10 Treatment volumetric rate components, respectively. These rate components allow for
11 straightforward identification by customers of the costs related directly to purchased
12 services, which are beyond the Company's control and passed through to customers at cost.
13 As mentioned previously, the Company is proposing new annual rate adjustment
14 mechanisms to pass through changes in purchased water and wastewater treatment costs.
15 The new volumetric rate components for Distribution Only and Collection Only customers
16 will allow for ease in implementing annual rate adjustments through the proposed
17 mechanisms.

18 Additionally, the Company is proposing new tariff provisions for water and
19 wastewater service, to incorporate language regarding the gross up of CIAC due to its
20 taxability pursuant to the TCJA. The proposed tariff language memorializes Blue Granite's
21 policy for gross up of developer contributed assets (cash and property), and reflects the full
22 gross up method rate of 33.24% for cash contributions or advances and net present value
23 method rate of 18.28% for original cost property contributions or advances. Finally, as

1 A. Purchased water and wastewater services represent a significant component of the
2 Company's total cost to serve its customers. The Company's 2018 purchased water
3 expenses totaled over \$3.5 million, out of a total O&M expense level of approximately
4 \$15.1 million. Similarly, Blue Granite's purchased wastewater expenses in 2018 were
5 almost \$1.8 million, out of a total O&M expense level of approximately \$15.1 million.
6 These expenses also vary significantly from year to year; from just 2017 to 2018, purchased
7 water expenses increased by 27% and purchased wastewater services expenses increased
8 by 58%. Due to the fluctuations in costs as well as the necessity to purchase these services,
9 the purchased water and wastewater components of the Company's operations change
10 significantly between general rate proceedings, without any mechanisms currently in place
11 to recover such expenses on a timely basis. Further, because of the contracts with and
12 rates charged by third-parties, the expenses are not controlled by the Company. The
13 purchased water and wastewater services expenses are recurring, significant, and variable.
14 To address these recurring and significant changes in expenses, the proposed rate
15 adjustment mechanisms will allow the utility to recover the cost of these services on a more
16 timely and predictable basis.

17 It is important to recognize that one goal of utility regulation is to provide the utility
18 with an opportunity to recover its prudent and necessary costs of providing utility service.
19 Periodic rate cases are often used for such cost recovery, but there are some expense items
20 for which a rate case is not sufficient – *i.e.*, general rate cases do not permit the utility to
21 accurately reflect certain types of costs in rates on a timely basis. Fuel costs for electric
22 utilities are a prime example. They are necessary to provide service, they are a significant
23 cost item, and they are largely outside of the control of the utility -- but they vary

1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS FOR**
3 **THE RECORD.**

4 A. My name is Dante DeStefano and I am employed as the Director of Financial Planning and
5 Analysis for Blue Granite Water Company ("Blue Granite" or the "Company").

6 **Q. ARE YOU THE SAME DANTE DESTEFANO WHO SUBMITTED DIRECT**
7 **TESTIMONY ON BEHALF OF BLUE GRANITE WATER COMPANY IN THIS**
8 **PROCEEDING?**

9 A. Yes, I am.

10 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

11 A. The purpose of my rebuttal testimony is to, first, identify points of agreement between the
12 positions of the Office of Regulatory Staff ("ORS"), the Consumer Advocate, and other
13 intervenors, and the Company. Second, my rebuttal testimony will explain where and why
14 I disagree with certain recommendations and positions of the other parties.

15 **Q. HAVE YOU REVIEWED THE FILED DIRECT TESTIMONY OF THE ORS, THE**
16 **CONSUMER ADVOCATE, AND THE OTHER INTERVENORS?**

17 A. Yes, I have.

18 **II. AREAS OF AGREEMENT AND COMPROMISE**

19 **Q. IS THE COMPANY WILLING TO AGREE OR COMPROMISE WITH ANY OF**
20 **ORS'S PROPOSED ADJUSTMENTS TO THE COMPANY'S REQUESTED**
21 **REVENUE REQUIREMENT?**

22 A. Yes. Blue Granite is willing to agree and compromise with the following ORS proposed
23 adjustments:

- Adjustments 1, 2, 3, 4, and 26b regarding pro-forma present rate revenues, Uncollectible Expense, and Gross Receipts Tax.
- Adjustments 5, 6, 14, 17a, and 26a related to Salaries & Wages, Capitalized Time, and Payroll Taxes.
- Adjustment 9a related to deferred maintenance.
- Adjustments 9b, 13a, and 20 related to the ClearWater Solutions Midlands region contract.
- Adjustments 9e, 13b, 15a, 15c, 21d, and 23b for rebranding and non-allowable expenses.
- Adjustment 19 for Insurance Expense.
- Adjustment 21a for Corix parent cost allocations.
- Adjustments 16a, 21c, and 21e regarding regulatory commission expenses and legal expenses, subject to the recommendation detailed later in my testimony.
- Adjustment 37 regarding Plant Held for Future Use.
- The calculations for Adjustments 27, 28, 35a, 35b, and 39 regarding Income Taxes, Cash Working Capital, and Interest Expense, subject to the results of adjustments elsewhere that impact these figures.

The Company also agrees with the ORS update of the as-filed Tax Cuts and Jobs Act one-time credit to customers, based on adjusted pro-forma customer counts. Blue Granite also appears to be in agreement with ORS on several items which were not adjusted by ORS from the Company's filed application:

- Adjustments 7, 10, 11a, 11b, 12a, 12b, 21b, 22, 23a, 29, 30, and 31.

1 purchased water and sewer treatment costs should be recovered as an expense and
2 recovered from customers on a consolidated basis.³ While ORS complains that the Pass-
3 Through Mechanism “as proposed by the Company in its Application did not address
4 ORS’s areas of concern,” the Company would point out that it is impossible to address
5 positions that are inherently contradictory.

6 **Q. WHY IS THE PASS-THROUGH MECHANISM SO IMPORTANT TO THE**
7 **COMPANY?**

8 A. These third-party expenses are significant, representing over 40% (approximately \$4.75
9 million) of the Company’s requested overall rate increase in this proceeding. These
10 expenses are variable and require an appropriate tracking and recovery mechanism. Third-
11 party suppliers frequently adjust their rates, such that any amount built into base rates will
12 quickly become out of date and insufficient. The rate changes, which result in changes in
13 expense levels, are instituted by unaffiliated third-party suppliers, over which the Company
14 has no control. As such, deferred accounting is an inadequate solution to address changes
15 in wholesale supplier costs that accumulate to a material degree between base rate cases.
16 Good regulatory policy supports timely recovery of prudent expenses that are significant,
17 variable, and largely outside the control of the utility, via rate adjustment mechanisms. The
18 Company’s purchased water and sewer treatment costs clearly meet these criteria.

water increases through the proposed ARA mechanism and resulting rate design does not support Bonbright Principles 6 and 7 shown above.”).

³ Direct Testimony of ORS Witness Sandonato at 23 (“ORS recommends the Commission maintain the current rate design and allow the Company to continue to recover the changes in third-party wholesale water and sewer treatment provider rates as an expense in the next rate proceeding.”).

Company's existing deferral calculation incorporates cost changes on a similar basis and with similar rationale as the same expenses were set in the base case. For all the reasons stated in my testimony, the Company continues to believe that our proposed mechanism and allocation methodology is far superior, in light of the policy preference for consolidated rates.

Finally, should the Commission not approve an annual pass-through mechanism as part of this proceeding, the Company should be authorized to accrue carrying costs on its purchased water/sewer treatment deferrals going forward until time of recovery at the Company's authorized cost of debt. The amounts that the Company must carry have far too great an impact on the Company's funding of operating activities for it to be disallowed from recovering reasonable carrying costs.

V. STORM RECOVERY EXPENSE AND STORM RESERVE FUND

Q. WHAT IS ORS'S POSITION ON STORM RECOVERY EXPENSE?

A. ORS witness Bickley proposes to significantly reduce the Company's Test Year storm recovery expense. Instead of relying on the Test Year actual expense, witness Bickley uses 10 years of historical data and recommends a multi-year average level of expense, after removing the highest and lowest 2 years out of that 10 years of data, resulting in a pro-forma value of \$28,321.

Q. WHAT IS THE COMPANY'S RESPONSE TO THE ORS ON THE ISSUE OF AN APPROPRIATE LEVEL OF STORM RECOVERY EXPENSE TO BUILD INTO BASE RATES?

A. We are not opposed to using a multi-year historical average of costs, but we believe that a more recent average should be used, particularly since South Carolina has experienced

more severe storms—and as a result, the Company has experienced consistently higher levels of storm recovery costs—in recent years. See the following table:

Year	Storm Costs	Five-Year Average
2010	\$16,207.41	\$14,533.90
2011	\$31,631.02	
2012	\$1,510.19	
2013	\$4,942.69	
2014	\$18,378.21	
2015	\$47,938.40	\$42,493.62
2016	\$43,737.13	
2017	\$33,469.27	
2018	\$54,716.21	
2019	\$32,607.10	

Accordingly, as an alternative to using the actual incurred Test Year level of storm recovery expense as the Company originally proposed (\$51,802), the Company proposes an average of the last 5 years (2015-2019) of storm recovery expenses, which is \$42,494. Note that these amounts exclude storm costs for Hurricanes Florence and Michael because Blue Granite has separately tracked and deferred those costs.

Q. WHAT ARE THE ORS'S AND CONSUMER ADVOCATE'S POSITIONS WITH RESPECT TO THE COMPANY'S PROPOSAL TO ESTABLISH A STORM RESERVE FUND?

A. ORS Witness Bickley appears to agree in concept with establishing a fund, but proposes that the Storm Reserve Fund be established at a much lower level—\$50,000 instead of the Company's proposal of \$200,000. The basis for Witness Bickley's position is that the Company's average annual storm recovery expense is closer to \$50,000 than \$200,000. Consumer Advocate Witness Morgan opposes the Company's Storm Reserve Fund proposal, stating the current base rate recovery of storm recovery expenses is sufficient.

1 **Q. DO YOU AGREE WITH WITNESS BICKLEY THAT BLUE GRANITE**
2 **CUSTOMERS HAVE NOT SUFFERED FROM SERVICE RELIABILITY ISSUES**
3 **DUE TO STORM DAMAGE?**

4 A. No. While Witness Bickley cites to the Company's response to Energy Operations Request
5 #29 to support ORS's contention that "very few, if any" of Blue Granite's customers have
6 gone without reliable water and sewer service due to storm damage, what the Company
7 also stated in that discovery response was that "the Company has occasionally experienced
8 service disruptions due to temporary power loss and damage to supply or treatment
9 infrastructure as well as main breaks, which can cause low pressure and require boil water
10 advisories. It can take from less than an hour to several days to restore full service to
11 customers depending on the nature of the damage sustained to the Company's systems."
12 The Storm Reserve Fund would be used to cover extraordinary storm restoration costs
13 beyond those included in the Company's revenue requirement, including, for example,
14 generator services necessary to restore service, damage assessments and inspections, site
15 preparation, and facilities repair.

16 **Q. DOES THE COMPANY AGREE WITH THE ORS'S MODIFICATIONS TO THE**
17 **STORM RESERVE FUND PROPOSAL, AND THE CONSUMER ADVOCATE'S**
18 **REASONING?**

19 A. No, we do not entirely agree. The Company does agree that periodic reporting and
20 utilization of funds only for named storms is reasonable. However, I believe the ORS's
21 modifications and Consumer Advocate's rationale would not serve the ultimate purpose of
22 the Storm Reserve Fund. The purpose of the fund is to set aside capital for immediate
23 deployment in cases of an extraordinary level of storm recovery expense, an amount

1 significantly above the annual average “normal” level of storm-related expense we
2 typically experience.

3 Unfortunately, in the last four years, we have in fact experienced two events where
4 we faced extraordinary storm recovery expenses. The Fund would permit Blue Granite to
5 have funds on hand to respond to extraordinary storms, and to save the administrative
6 burden and expense of filing repeated deferred accounting petitions with the Commission.
7 Further, without a reserve fund, absent filing for deferred accounting treatment, the
8 Company has no available recourse to recover costs related to major storm events.
9 Additionally, the use of a reserve fund will allow the Company to recover the true costs of
10 storm damage recovery without the need to use other funds already allocated to other
11 necessary activities. A \$50,000 fund, as proposed by the ORS, will not accomplish these
12 goals. Our proposal for a Storm Reserve Fund recognizes that the costs to restore service
13 following a storm must be incurred immediately, are a reasonable and necessary cost of
14 providing service and, because storm costs incurred can be volatile, the proposed Fund
15 provides a means to reflect the true cost of storm damage recovery in customer rates.
16 Further, the proposal recognizes storm damage recovery is a vital utility activity, involving
17 around-the-clock restoration efforts and the need for immediate investment in the system
18 and operations. Customer protections would also be in place as the monthly charge would
19 be suspended once the threshold amount was reached, and any overcollections during that
20 last month would be refunded to customers the following month.

21 The Company also disagrees with certain modifications proposed by Witness
22 Bickley. Rather than a quarterly filing, I recommend annual compliance filings, as that
23 frequency allows for reconciliation of the annual activity in relation to base rate cost

1 A. As described in ORS Witness Sullivan's testimony, the Company agrees: 1) to remove and
2 defer \$31,788 in legal costs related to a pending action; 2) to remove \$151,589 of legal
3 costs related to Congaree Riverkeeper litigation, consistent with the Commission's
4 Rehearing Order in Docket 2017-292-WS, which is currently open to appeal; 3) to add
5 \$168,310 related to activity from the I-20 condemnation; and 4) to remove \$36,864 from
6 Test Year activity related to regulatory proceedings that will be combined with the deferred
7 rate case expenses from the current proceeding.

8 However, the Company disagrees with the removal of \$7,143 in legal expenses
9 related to services prior to the Test Year, without likewise reviewing post-Test Year legal
10 expenses for activity related to the Test Year period. The Company has identified \$7,203
11 in general legal expenses paid in the post-Test Year, that should be included for recovery
12 if ORS's adjustment is accepted. Similarly, the Company has identified an additional
13 \$16,132 in post-Test Year costs related to Docket Nos. 2018-358-WS and 2018-361-WS
14 and recommends this amount be combined with the same activity identified in Adjustment
15 21c as Rate Case Expense for the current proceeding. Both the \$7,203 and \$16,132 figures
16 noted herein are supported by attached DeStefano Rebuttal Exhibit No. 2.

17 **Q. WHAT IS THE COMPANY'S RESPONSE TO THE ORS ADJUSTMENT 16a**
18 **RELATED TO RATE CASE EXPENSE?**

19 A. Aside from the modification to Adjustment 21c the Company recommends above, we do
20 not disagree with the Rate Case Expense amount proposed by ORS, which incorporates
21 costs supported through the audit cut-off date. This amount is subject to change as the
22 Company provides additional documentation for costs incurred during the pendency of this
23 proceeding.

1 it?

2 A Again, it would -- it would depend on the -- each
3 customer's individual circumstances.

4 Q The fact of the matter: The way -- because you do
5 it this way -- the reason you do it this way is
6 because it's easy to do it that way for the
7 company, but it's hard on the customers, right?

8 A I would disagree.

9 Q Well, how much do you pay the City of Columbia per
10 gallon?

11 A Last I checked, it was \$5.92 per thousand gallons.

12 Q Per thousand gallons? Well, what happens if I only
13 use a hundred gallons in a month?

14 A Again, that's for sewer flow and we're not
15 measuring sewer on a residence-by-residence basis.

16 Q Well, yeah. But you're telling me -- let's just --
17 how much are you charging on a residence-by-
18 residence basis for sewer?

19 A I believe the current rate per SFE is 68 -- 65.08
20 per month.

21 Q Well, let's look at it this way: Let's say I use
22 100 gallons in a month: How much is it costing me
23 per gallon? Do -- do the math for me.

24 A Per gallon, it would be the \$65.08 divided by 100,
25 I guess.

BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA
[Columbia, South Carolina]

HEARING # 20-11857

FEBRUARY 27, 2020

6:00 P.M.

DOCKET NO. 2019-290-WS:

Blue Granite Water Company - Application for Approval to Adjust
Rate Schedules and Increase Rates

TRANSCRIPT OF TESTIMONY
AND PROCEEDINGS

VOLUME 7 OF 10

HEARING BEFORE: Comer H. 'Randy' RANDALL, *Chairman*; Florence
P. BELSER, *Interim Vice Chairman*; and COMMISSIONERS John
E. 'Butch' HOWARD, Thomas J. 'Tom' ERVIN, Swain E.
WHITFIELD, and O'Neal HAMILTON

ADVISOR TO COMMISSION: Randall Dong, Esq.
Legal Advisory Staff

STAFF: Jocelyn Boyd, Chief Clerk/Executive Director; William O.
Richardson, Technical Advisory Staff; Virginia 'Ginger' Crocker and
Afton Ellison, Clerk's Staff; Rob Bockman, Public Information
Officer; Randy Erskine, Information Technology Staff; Melissa
Purvis, Livestream Technician; and Jo Elizabeth M. Wheat, CVR-CM/M-
GNSC, Court Reporter

APPEARANCES:

SAMUEL J. WELLBORN, ESQUIRE, representing BLUE
GRANITE WATER COMPANY, APPLICANT

ROBERT HALL, ESQUIRE, representing the SOUTH
CAROLINA DEPARTMENT OF CONSUMER AFFAIRS, INTERVENOR

JEFFREY M. NELSON, ESQUIRE, representing the
SOUTH CAROLINA OFFICE OF REGULATORY STAFF

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

1 THEREUPON came,

2 K I M C O R R I G A N ,

3 who, having been first duly affirmed, testified as follows:

4 MR. RICHARDSON: Please state your name for
5 the record.

6 WITNESS: My name is Kim Corrigan, and I live
7 at Spence's Point, in Lexington County, or the Town
8 of Lexington. My background is in the healthcare
9 industry for over 25 years.

10 Blue Granite is applying for a 50 percent
11 average rate increase, only two years after a 30
12 percent rate increase, which is unreasonable for
13 their consumers. Add to that their statement to
14 Representative Chris Wooten that they intend to
15 pursue additional rate cases every two years
16 following this one.

17 An example of the service we have received
18 recently: On February 17th of this year, a pump
19 alarm went off at 5:04 a.m. A technician was sent
20 from the company and they shut down Pump No. 2 and
21 left. Pump No. 2 failed due to a piece of metal
22 that caused the check valve to come apart. As a
23 result of that, that allowed sewage that had been
24 pumped out to come back into the pump, causing
25 overflows. Unfortunately, despite multiple calls

1 of sewage running across our property and into Lake
2 Murray, additional technicians did not arrive until
3 11:10 a.m.

4 It was estimated between 400 and 600 gallons
5 of sewage per hour went into Lake Murray from our
6 three areas of overflow. I've included pictures of
7 everything referenced and request that it be
8 included as exhibits in this case.

9 Blue Granite fixed the pump, sprinkled garden
10 lime on the sewage-covered grass, and washed the
11 pool deck with HTH before leaving. No remedy was
12 done for the sewage-soaked wood planters lining the
13 cabana pathways. Signs saying "Keep kids and pets
14 away" were posted for four days.

15 Our residents, their children, and
16 grandchildren swim in the pool, have lunch at the
17 cabana, and play ball on our grassy lawn when the
18 weather gets warmer. Would you want to bring your
19 family over, knowing that this has happened?

20 We request that the Town of Lexington fulfill
21 their agreement made 20 years ago to connect their
22 sewer lines to our sewer lines, and close the
23 Watergate treatment plant. Thank you for your time
24 and attention.

25 And I have pictures of the events, and all the

1 reading. As it progressed, they put a new meter
2 reader there; he told me that they let go of the
3 person that was doing that. I did call the proper
4 State agency to complain and give them my water
5 bills, so I had been through that. So the meter
6 was erratic. This may not be scientific, but our
7 water was – we don't have sewage with them – was
8 \$64 last month. We got an \$88 bill just the other
9 day. I know there's science behind it; you can
10 look and see what's going on. They got – we had at
11 least three different meters. We've got an old
12 one – I think sometimes, I wonder if people would
13 charge less if they had an older meter. We have
14 another one, and another replaced.

15 Now, another reason why I come to the opinion
16 that I do not want Blue Granite for my water
17 company, I very respectfully called their 800 or
18 888 number, had very civil conversations. You
19 don't call Blue Granite locally. You get a
20 national member. The people were very nice; I was
21 very nice. I did this at least four times,
22 possibly five times. No time – not at any time has
23 anybody from Blue Granite ever called me. I would
24 call the national number, they'd say, "Well, we
25 can't talk to you. We'll get the local manager to

1 call you." They never called me. They're either
2 arrogant or incompetent, and probably both. That
3 is where I come to my understanding about Blue
4 Granite.

5 And so, again, I do not think they serve the
6 public well. I think they're interested in the
7 stockholders and profits, and not in the common
8 good. Lexington County, if I have a concern with
9 the sewage, I can call somebody on the phone, I can
10 walk in the office and talk to somebody. If you
11 respectful public commissioners, if you call Blue
12 Granite, I'll bet you get a phone call back from
13 them. They never called me.

14 [3-minute signal]

15 Okay. So I believe we're not being served,
16 and it's up to the Public Service Commission to
17 decide if we're being served. And I think this
18 public is being served very poorly with high,
19 expensive water. Please remove them. I'd like to
20 be on a water system that's more or less for the
21 people - of the people, by the people, and for the
22 people, and not for a for-profit company. And
23 thank you, very much.

24 CHAIRMAN RANDALL: Thank you, Mr. Mallard.

25 Questions. Questions, Mr. Nelson.

Before the Public Service Commission of South Carolina
Columbia, South Carolina

Hearing # 20-11857 February 28, 2020 10:02 a.m.

Docket Number 2019-290-WS: Blue Granite Water Company
Application for Approval to Adjust Rate Schedules
and Increase Rates

TRANSCRIPT OF TESTIMONY
AND PROCEEDINGS

VOLUME 8 of 10
[MERITS HEARING]

HEARING BEFORE: Chairman Comer H. "Randy" Randall;
Interim Vice Chairman Florence P. Belser;
Commissioner G. O'Neal Hamilton; Commissioner John
E. "Butch" Howard; Commissioner Swain E. Whitfield;
and Commissioner Thomas J. "Tom" Ervin

ADVISOR TO COMMISSION: B. Randall Dong, Esq.
Legal Advisory Staff

STAFF: Jocelyn Boyd, Esq., Chief Clerk/Executive
Director; Jo Anne Wessinger Hill, Esq., Legal Advisory
Staff; William O. Richardson, Technical Advisory Staff;
John Powers, Technical Advisory Staff; Ginger Crocker,
Clerk's Staff; Randy Erskine, Information Technology
Staff; Melissa Purvis, Livestream Technician; Jo
Elizabeth M. Wheat, CVR-CM/M-GNSC

COURT REPORTER: Kathleen R. Tackett, CVR-M

1 believe I addressed this on Page 16 of my rebuttal
2 testimony. Basically, we're incentivized to -- to
3 track this information because it gives us -- it
4 gives us better data as to where our costs are
5 going, and it helps us identify problems of where
6 we need to prioritize capital investment, where we
7 need to -- you know, if we identify, you know, any
8 impacts to customers, if we've, potentially, got
9 slow meters that need to be replaced and things
10 like that. So tracking this information -- the
11 non-revenue water information is -- is -- is
12 valuable to us, absent the considerations for
13 recovery.

14 Q Well, I think you've had a lot of lengthy exchange
15 with ORS, with Mr. Bateman, but just to that point
16 you just said, the -- the impact to customers, ORS
17 certainly raised their concern there. Could you --
18 could you address that, their concern, once again,
19 to -- on the impact to customers?

20 A So I -- and I think some of this, also, was maybe
21 covered in Mr. Mendenhall's testimony. To the
22 extent that the company's incurring non-revenue
23 water impacts in its systems, first of all, non-
24 revenue water is generally accepted as a cost --
25 cost of doing business, even with relatively new

1 Q Mr. Parcell, please briefly describe your
2 recommendations and analyses.

3 A Yes. My overall cost of capital recommendations
4 for Blue Granite are as follows: a capital
5 structure of 47.09 percent debt and 52.91 percent
6 common equity. These are the same capital
7 structure ratios proposed by Blue Granite and
8 reflect the test period capitalization of the --
9 Blue Granite's parent, CRU. I used a cost of debt
10 of 5.73 -- again, the same cost rate used by the
11 company, which also reflects the test period cost
12 rate for CRU.

13 My recommended return on equity, which is the
14 only controversial -- or disputed capital structure
15 component, is a range of 8.9 percent to 10.0
16 percent. I used three recognized methodologies to
17 arrive at this range. These are DCF, where I used
18 a finding of 8.9 percent; capital asset pricing
19 model of 6.2 percent; comparable earnings of 10.0.
20 My recommendation, which is 8.9 to 10.0, focuses on
21 the upper end of my DCF range and the upper end of
22 my comparable earnings range. And I recommend a
23 midpoint of this range of -- of 9.45 percent.

24 Q Thank you. Does your testimony discuss the
25 declining trends in ROEs?

DIRECT TESTIMONY AND EXHIBITS OF
DAVID C. PARCELL
ON BEHALF OF
THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF
DOCKET NO. 2019-290-WS
IN RE: APPLICATION OF BLUE GRANITE WATER COMPANY
FOR ADJUSTMENT OF RATES AND CHARGES

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.

A. My name is David C. Parcell. I am a Principal and Senior Economist of Technical Associates, Inc. My address is 2218 Worchester Road, Midlothian, Virginia 23113.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I hold B.A. (1969) and M.A. (1970) degrees in economics from Virginia Polytechnic Institute and State University (Virginia Tech) and a M.B.A. (1985) from Virginia Commonwealth University. I have been a consulting economist with Technical Associates since 1970. I have provided cost of capital testimony in public utility ratemaking proceedings dating back to 1972. In this regard, I have previously filed testimony and/or testified in over 575 utility proceedings before about 50 regulatory agencies in the United States and Canada. Exhibit DCP-1 provides a more complete description of my education and relevant work experience.

Item	Percent	Cost	Weighted Cost
Debt	47.09%	5.73%	2.70%
Common Equity	52.91%	8.90%-10.00%	4.71-5.29%
Total	100.0%		7.41-7.99%

Recommended cost of capital:

7.70% with 9.45% ROE

BGWC's application requests a cost of capital of 8.36 percent and a cost of equity of 10.70 percent.

Q. PLEASE SUMMARIZE YOUR ANALYSES AND CONCLUSIONS.

A. This proceeding is concerned with BGWC's regulated water and wastewater utility operations in South Carolina. My analyses concern the Company's cost of capital. The first step in performing these analyses is to develop the appropriate capital structure. BGWC proposes use of a capital structure with 47.09 percent debt and 52.91 percent common equity, which reflects the test year ending June 30, 2019 ("Test Year") capital structure ratios of CRU (immediate parent and provider of capital to BGWC). I also use this capital structure.

The second step in a cost of capital calculation is to determine the embedded cost rate of debt. BGWC proposes to use a cost rate of 5.73 percent for debt, the cost rate of CRU as of June 30, 2019. I use this cost rate in my analyses.

The third step in the cost of capital calculation is to estimate the cost of equity. I employ three recognized methodologies to estimate BGWC's cost of equity, each of which I apply to three proxy groups of water utilities. These three methodologies and my findings are:

Methodology	Range
Discounted Cash Flow ("DCF")	8.2-8.9%
Capital Asset Pricing Model ("CAPM")	5.9-6.2%
Comparable Earnings ("CE")	9.0-10.0%

Based upon these findings, I conclude that BGWC's cost of equity is within a range of 8.9 percent to 10.0 percent (9.45 percent mid-point), which is based upon the upper-end of my DCF results and upper-end of my CE results models.¹ I use the upper ends of my DCF and CE ranges in order to give some consideration to any perceived unique attributes of BGWC.

Combining these three steps into the weighted cost of capital results in an overall cost of capital of 7.41 percent to 7.99 percent (which incorporates an 8.9 percent to 10.0 percent cost of equity). My specific cost of capital recommendation is the mid-point of this range, or 7.70 percent (9.45 percent cost of equity).

III. ECONOMIC/LEGAL PRINCIPLES AND METHODOLOGIES

Q. WHAT ARE THE PRIMARY ECONOMIC AND REGULATORY PRINCIPLES THAT ESTABLISH THE STANDARDS FOR DETERMINING A FAIR RATE OF RETURN FOR A REGULATED UTILITY?

A. Public utility rates are normally established in a manner designed to allow the recovery of their costs, including capital costs. This is frequently referred to as "cost of service" ratemaking. Rates for regulated public utilities traditionally have been primarily established using the "rate base – rate of return" concept. Under this method, utilities are

¹As I indicate in a later section, my cost of equity recommendation does not directly incorporate the CAPM results, which I believe to be somewhat low at this time, relative to the DCF and CE results.

Methodology	Range
Discounted Cash Flow ("DCF")	8.2-8.9%
Capital Asset Pricing Model ("CAPM")	5.9-6.2%
Comparable Earnings ("CE")	9.0-10.0%

Based upon these findings, I conclude that BGWC's cost of equity is within a range of 8.9 percent to 10.0 percent (9.45 percent mid-point), which is based upon the upper-end of my DCF results and upper-end of my CE results models.¹ I use the upper ends of my DCF and CE ranges in order to give some consideration to any perceived unique attributes of BGWC.

Combining these three steps into the weighted cost of capital results in an overall cost of capital of 7.41 percent to 7.99 percent (which incorporates an 8.9 percent to 10.0 percent cost of equity). My specific cost of capital recommendation is the mid-point of this range, or 7.70 percent (9.45 percent cost of equity).

III.ECONOMIC/LEGAL PRINCIPLES AND METHODOLOGIES

Q. WHAT ARE THE PRIMARY ECONOMIC AND REGULATORY PRINCIPLES THAT ESTABLISH THE STANDARDS FOR DETERMINING A FAIR RATE OF RETURN FOR A REGULATED UTILITY?

A. Public utility rates are normally established in a manner designed to allow the recovery of their costs, including capital costs. This is frequently referred to as "cost of service" ratemaking. Rates for regulated public utilities traditionally have been primarily established using the "rate base – rate of return" concept. Under this method, utilities are

¹As I indicate in a later section, my cost of equity recommendation does not directly incorporate the CAPM results, which I believe to be somewhat low at this time, relative to the DCF and CE results.

1 allowed to recover a level of operating expenses, taxes, and depreciation deemed
2 reasonable for rate-setting purposes, and are granted an opportunity to earn a fair rate of
3 return on the assets utilized (*i.e.*, rate base) in providing service to their customers.

4 The rate base is derived from the asset side of the utility's balance sheet as a dollar
5 amount and the rate of return is developed from the liabilities/owners' equity side of the
6 balance sheet as a percentage. Thus, the revenue impact of the cost of capital is derived by
7 multiplying the rate base by the rate of return, including income and other taxes.

8 The rate of return is developed from the cost of capital which is estimated by
9 weighting the capital structure components (*i.e.*, debt, and common equity) by their
10 percentages in the capital structure and multiplying these values by their cost rates. This
11 is also known as the weighted cost of capital.

12 Technically, "fair rate of return" is a regulatory and accounting concept that refers
13 to an *ex post facto* (after the fact) earned return on an asset base while the cost of capital is
14 an economic and financial concept which refers to *ex ante facto* (before the fact) expected,
15 or required, return on a capital base. In regulatory proceedings, however, the two terms
16 are often used interchangeably, and I have equated the two concepts in my testimony.

17 From an economic standpoint, a fair rate of return is normally interpreted to mean
18 that an efficient and economically-managed utility will be able to maintain its financial
19 integrity, attract capital, and establish comparable returns for similar risk investments.
20 These concepts are derived from economic and financial theory and are generally
21 implemented using financial models and economic concepts.

22 With regard to the regulatory standards, my testimony is based on my
23 understanding that two United States Supreme Court decisions provide the controlling

1 A. Neither the courts nor economic/financial theory has developed exact and
2 mechanical procedures for precisely determining the cost of capital. This is the case
3 because the cost of capital is an opportunity cost and is prospective-looking, which dictates
4 that it must be estimated. However, there are several useful models that can be employed
5 to assist in estimating the cost of common equity ("return on equity" or "ROE"), which is
6 the capital cost component that is the most difficult to estimate. These include the DCF,
7 CAPM, CE, and risk premium ("RP") methods. I have not directly employed a RP model
8 in my analyses although, as discussed later, my CAPM analysis is a form of the RP
9 methodology. I describe each of these methodologies in more detail later in my testimony.

10 IV. GENERAL ECONOMIC CONDITIONS

11 Q. ARE ECONOMIC AND FINANCIAL CONDITIONS IMPORTANT IN
12 DETERMINING THE COSTS OF CAPITAL FOR A PUBLIC UTILITY?

13 A. Yes. The costs of capital for both fixed-cost (debt and preferred stock) components
14 and common equity are determined in part by current and prospective economic and
15 financial conditions. At any given time, each of the following factors has an influence on
16 the costs of capital:

- 17 • The level of economic activity (*i.e.*, growth rate of the economy);
- 18 • The stage of the business cycle (*i.e.*, recession, expansion, or transition);
- 19 • The level of inflation;
- 20 • The level and trend of interest rates; and,
- 21 • Current and expected economic conditions.

22 My understanding is that this position is consistent with the *Bluefield* decision, which noted
23 "[a] rate of return may be reasonable at one time and become too high or too low by changes

financing for BGWC) and is similar to the average capital structure ratios of the proxy groups of water utilities (*i.e.*, a “market-driven” capital structure).

Q. WHAT IS THE COST OF DEBT OF BGWC?

A. The company’s testimony utilizes a cost of long-term debt of 5.73 percent – the cost of debt for CRU as of June 30, 2019.

Q. WHAT COST OF DEBT DO YOU UTILIZE IN YOUR COST OF CAPITAL ANALYSES?

A. I use this cost rates in my analyses.

VI. SELECTION OF PROXY GROUPS

Q. HOW HAVE YOU ESTIMATED THE COST OF EQUITY FOR BGWC?

A. BGWC is a subsidiary of CRU, and ultimately CII, none of which are publicly-traded. Consequently, it is not possible to directly apply cost of equity models to any of these entities. Generally, groups of comparison or “proxy” companies are analyzed as a substitute for BGWC to determine its cost of common equity.

I have examined three such groups for comparison of BGWC. I selected one group of water utilities covered by Value Line (Standard Edition) and using the criteria listed on Schedule 5 of Exhibit DCP-2. These criteria are as follows:

- 1) Primarily a regulated water utility in U.S.;
 - 2) Common equity ratio 40% or greater;
 - 3) Value Line Safety of 2 or 3;
 - 4) S&P’s bond ratings of A or AA;
 - 5) Currently pays dividends, and has not reduced dividends in past five years;
- and,

6) Not currently involved in major merger.

Second, I have conducted studies of the cost of equity for the water utilities group cited by Value Line (in both the Standard and Small and Mid-Cap Editions). I note that the Value Line group contains SJW Corp. that recently was involved in a significant merger (with Connecticut Water). In addition, Aqua America is currently in the process of acquiring several natural gas utilities, which will significantly change its operational and risk profile. Finally, the inclusion of Artesian Resources (from the Small and Mid-Cap Edition of Value Line) does not include the same degree of information as those companies in the Standard Edition.

Third, I have also considered the proxy group of water utilities employed by BGWC witness D'Ascendis in his analyses. In doing so, I note that his proxy group only differs from my primary proxy group in that witness D'Ascendis includes Artesian Resources.

VII. DISCOUNTED CASH FLOW ANALYSIS

Q. WHAT IS THE THEORY AND METHODOLOGICAL BASIS OF THE DCF MODEL?

A. The DCF model is one of the oldest and most commonly-used models for estimating the ROE for public utilities. The DCF model is based on the "dividend discount model" of financial theory, which maintains that the value (price) of any security or commodity is the discounted present value of all future cash flows.

The DCF model is based upon two fundamental principles. First, DCF is based on the postulate that investors value an asset on the basis of the future cash flows (*i.e.*, dividends and ultimate sales in the case of common stocks) they expect to receive from owning the asset. The second DCF principle is that investors value a dollar received in the

1 the risk of a particular company or industry (*i.e.*, beta), whereas the simple RP method
2 assumes the same cost of equity for all companies exhibiting similar bond ratings or other
3 characteristics.

4 **Q. WHAT DO YOU USE FOR THE RISK-FREE RATE?**

5 **A.** The first input of the CAPM is the risk-free rate (R_f). The risk-free rate reflects the
6 level of return that can be achieved without accepting any risk.

7 In CAPM applications, the risk-free rate is generally recognized by use of U.S.
8 Treasury securities. Two general types of U.S. Treasury securities are often utilized as the
9 R_f component -- short-term U.S. Treasury bills and long-term U.S. Treasury bonds.

10 I have performed CAPM calculations using the three-month average yield (October
11 - December 2019) for 20-year U.S. Treasury bonds. I use the yields on long-term Treasury
12 bonds since this matches the long-term perspective of ROE analyses. Over this three-
13 month period, these bonds had an average yield of 2.10 percent.

14 **Q. WHAT IS BETA AND WHAT BETAS DO YOU EMPLOY IN YOUR CAPM?**

15 **A.** Beta is a measure of the relative volatility (and thus risk) of a particular stock in
16 relation to the overall market. Betas less than 1.0 are considered less risky than the market,
17 whereas betas greater than 1.0 are riskier. Utility stocks traditionally have had betas below
18 1.0. I utilize the most recent Value Line betas for each company in the proxy groups.

19 **Q. HOW DO YOU ESTIMATE THE MARKET RISK PREMIUM COMPONENT?**

20 **A.** The market risk premium component ($R_m - R_f$) represents the investor-expected
21 premium of common stocks over the risk-free rate, or long-term government bonds. For
22 the purpose of estimating the market risk premium, I considered alternative measures of
23 returns of the S&P 500 (a broad-based group of large U.S. companies) and 20-year U.S.

1 **A.** The recent and prospective ROEs of the proxy utilities and S&P 500 groups can be
2 viewed as an indication of the level of return realized and expected in the regulated and
3 competitive sectors of the economy. In order to apply these returns to the cost of equity
4 for the proxy utilities, however, it is necessary to compare the risk levels of the water
5 utilities and the competitive companies. I do this in Schedule 11 of Exhibit DCP-2, which
6 compares several risk indicators for the S&P 500 group and the water utility groups. The
7 information in this schedule indicates that the S&P 500 group is riskier than the water
8 utility proxy groups.

9 **Q. WHAT ROE IS INDICATED BY YOUR CE ANALYSIS?**

10 **A.** Based on recent and prospective ROEs and M/Bs, my CE analysis indicates that
11 the required ROE for the proxy utilities is no more than 9.0 percent to 10.0 percent (9.5
12 percent mid-point). Recent ROEs of 8.9 percent to 9.7 percent have resulted in M/Bs more
13 than 200 percent. Prospective ROEs of 9.6 percent to 14.0 percent have been accompanied
14 by M/Bs over 300 percent. As a result, it is apparent that authorized returns below this
15 level would continue to result in M/Bs of well above 200 percent. As I indicated earlier,
16 the fact that M/Bs substantially exceed 100 percent indicates that historic and prospective
17 ROEs of 9.5 percent reflect earning levels that are well above the actual earned ROE for
18 those regulated companies. I also note that a company whose stock sells above book value
19 can attract capital in a way that enhances the book value of existing stockholders, thus
20 creating a favorable environment for financial integrity. My specific CE recommendation
21 is the upper of this range, or 10.0 percent.

X. RETURN ON EQUITY RECOMMENDATION

Q. PLEASE SUMMARIZE THE RESULTS OF YOUR THREE COST OF EQUITY ANALYSES.

A. My three cost of equity analyses produced the following:

	<u>Recommendation</u>
DCF	8.9%
CAPM	6.2%
CE	10.0%

These results indicate an overall broad range of 6.2 percent to 10.0 percent. I recommend a ROE range of 8.9 percent to 10.0 percent for BGWC. This range includes my DCF result (8.9 percent), and my CE result (10.0 percent). Specifically, I recommend a cost of equity of 9.45 percent for BGWC, the mid-point of this range.

Q. IT APPEARS THAT YOUR CAPM RESULTS ARE LESS THAN YOUR DCF AND CE RESULTS. DO YOU DIRECTLY CONSIDER THE CAPM RESULTS IN DETERMINING THE COST OF EQUITY FOR BGWC?

A. Not at this time. I have conducted CAPM studies in my cost of equity analyses for many years. It is apparent that the CAPM results are currently significantly less than the DCF and CE results. There are two reasons for the lower CAPM results. First, risk premiums are lower currently than was the case in prior years. This is the result of lower equity returns that have been experienced beginning with the Great Recession and continuing over the past several years. This is also reflective of a decline in investor expectations of equity returns and risk premiums. Second, the level of interest rates on U.S. Treasury bonds (*i.e.*, the risk-free rate) has been lower in recent years. This is partially

1 I also disagree with the 10.03 percent market risk premium Mr. D'Ascendis
2 employs in his CAPM analyses. This market risk premium is developed in a similar
3 fashion to those in his risk premium analyses. For the same reasons cited above, Mr.
4 D'Ascendis' risk premium values are over-stated.

5 Mr. D'Ascendis also performs an "empirical" CAPM analysis, wherein he assigns
6 75 percent weight to actual betas for the proxy group of electric utilities and a 25 percent
7 weight to an assumed beta of 1.0 (*i.e.*, the market beta). I disagree with this empirical
8 CAPM, since it arbitrarily ignores the actual betas of the proxy utilities and, instead, assigns
9 hypothetical betas to them.

10 **Q. WHAT IS YOUR RESPONSE TO MR. D'ASCENDIS' USE OF A "NON-PRICE**
11 **REGULATED PROXY GROUP" IN HIS ROE ANALYSES?**

12 **A.** Mr. D'Ascendis' final methodology applies DCF, CAPM and RP models to a group
13 of fourteen "non-price regulated companies" which he describes as having similar betas to
14 his group of water utilities contained in his proxy group.³²

15 I disagree with his use of unregulated firms as a proxy group for the Companies. It
16 is not proper to use non-regulated firms in the manner Mr. D'Ascendis proposes. This is
17 the case since unregulated enterprises face different risk and operational characteristics
18 than do utilities.

³² Direct Testimony of Dylan W. D'Ascendis, Exhibit No. 1, Schedule DWD-6.

1 **Q. MR. D'ASCENDIS PROPOSED INCLUSION OF A "BUSINESS RISK"**
2 **ADJUSTMENT OF 0.50 PERCENT, DUE TO THE SMALLER SIZE OF BGWC,**
3 **RELATIVE TO THE PROXY GROUP. DO YOU AGREE WITH THE**
4 **PROPOSITION THAT BGWC SHOULD BE ENTITLED TO A SIZE OR**
5 **BUSINESS RISK ADJUSTMENT?**

6 **A.** No, I do not. BGWC's ratepayers should not be charged water rates which reflect
7 an incremental return to reflect the size of the Company. Such an increment is not justified
8 and not appropriate.

9 **Q. IS IT PROPER TO COMPARE THE SIZE OF THE COMPANIES' TO THE**
10 **WATER PROXY COMPANIES AND MAKE RISK COMPARISONS BASED**
11 **UPON THE SIZE DIFFERENTIALS BETWEEN THEM?**

12 **A.** No, it is not proper. Many of the proxy water utilities have multiple subsidiaries
13 that operate in different jurisdictions. Following Mr. D'Ascendis' reasoning, each of the
14 subsidiaries of the proxy water utilities should be considered as riskier than the proxy group
15 since, by definition, they would have to be smaller. This reasoning is flawed, since these
16 individual water company subsidiaries do not raise their equity capital directly from
17 investors, but rather do so as a consolidated entity.

18 **Q. ARE THERE OTHER REASONS WHY A SIZE ADJUSTMENT IS IMPROPER?**

19 **A.** Yes. There are other compelling reasons why a small size adjustment is not proper
20 for regulated utilities. Mr. D'Ascendis' proposed size adjustment is based upon his
21 reference to the Duff & Phelps (formerly Morningstar/Ibbotson) studies. However, the
22 small size adjustment in the Duff & Phelps studies is based on the analysis of all stocks,
23 the majority of which are unregulated and include industries that are much riskier than

1 utilities. While it may or may not be true that, on an overall market basis, smaller publicly-
2 traded firms exhibit more risk than larger firms, these smaller companies' stocks tend to be
3 engaged in riskier businesses as a whole than do larger businesses. Such is not the case for
4 regulated utilities.

5 Indeed, an academic study conducted by Professor Annie Wong found that:

6 **Utility and industrial stocks do not share the same characteristics.**

7 First, given firm size, utility stocks are consistently less risky than industrial
8 stocks. Second, industrial betas tend to decrease with firm size but utility
9 betas do not. These findings may be attributed to the fact that all public
10 utilities operate in an environment with regional monopolistic power than
11 regulated financial structure. As a result, the business and financial risks
12 are very similar among the utilities regardless of their sizes. Therefore,
13 utility betas would not necessarily be expected to be related to firm size.

14 ...

15 This implies that although the price phenomenon has been strongly
16 documented for the industrials, the **findings suggest that there is no need**
17 **to adjust for the firm size in utility rate regulation.**³³ [emphasis added]

18 **Q. CAN YOU PROVIDE ANY EVIDENCE THAT "SIZE" OR "BUSINESS RISK"**
19 **ADJUSTMENTS ARE NOT GENERALLY RECOGNIZED AS RISK FACTORS**
20 **IN REGULATORY PROCEEDINGS SUCH AS THIS ONE?**

21 **A.** Yes, I can. Schedule 12 of Exhibit DCP-2 shows that there is no apparent
22 relationship between size and risk indicators among the proxy water companies.

23 **Q. CAN YOU PROVIDE ANY DIRECT COMPARISONS OF ELECTRIC UTILITIES**
24 **THAT DEMONSTRATES THAT SMALLER UTILITIES ARE NOT MORE**
25 **RISKY THAN LARGER ONES?**

³³ Wong, Annie, "Utility Stocks and The Size Effect: An Empirical Analysis," Journal of the Midwest Finance Association, 1993, pp. 95-101.

A. Yes. Implicit in Mr. D'Ascendis' proposal is an assumption that any perceived small size risk adjustment for unregulated companies (*i.e.*, source of information cited in Duff & Phelps source Mr. D'Ascendis relies on for small size adjustment) applies to regulated public utilities. Schedule 13 demonstrates objectively that this is not the case. As this schedule shows, there is no significant difference, and even more to the point that there is no discernible pattern of increase, among the risk indicators of publicly-traded electric utilities of different sizes³⁴. The table below summarizes the information contained in this schedule:

Cap Size	Safety	Beta	Financial Strength	S&P Rating	Moody's Rating
Under \$5 B	2.0	.63	B++/A	BBB+	Baa1
\$5 - \$15 B	2.0	.67	A	BBB+	Baa1
\$15-\$25 B	2.1	.58	B++	BBB+	Baa2/Baa1
\$25B Plus	1.5	.56	A	BBB+/A-	Baa1

The safety rank, beta values, financial strength and S&P stock ranking are about the same for all sizes of electric utilities. These risk indicators do not reflect any risk differential as the size of the electric utilities decrease from large to small. To the contrary, this data indicates that regulated monopoly utility providers have approximately the same risk regardless of size. As a result, the logic Mr. D'Ascendis uses to justify his proposed small size adjustment is not justified.

Q. WILL YOU UPDATE YOUR TESTIMONY BASED ON INFORMATION THAT BECOMES AVAILABLE?

³⁴ Electric utilities are used in this comparison since there are more electric utilities for comparative purposes than water utilities.

1 the *Bluefield*³ and *Hope*⁴ decisions cited in my Direct Testimony. Contrary to witness
2 D'Ascendis' position, it is appropriate to consider the impact of ROE awards since these
3 reflect the same types of analyses (*i.e.*, DCF, CAPM, and CE) that should be utilized in the
4 current proceeding.

5 **V. WITNESS D'ASCENDIS' "CORRECTED CONCLUSION OF MR. PARCELL'S**
6 **COST OF COMMON EQUITY"**

7 **Q. ON PAGE 31 OF HIS REBUTTAL TESTIMONY, WITNESS D'ASCENDIS**
8 **PRESENTS WHAT HE DESCRIBES AS "CORRECTIONS" TO YOUR DCF,**
9 **CAPM, AND CE RESULTS. DO YOU AGREE WITH THESE "CORRECTIONS?"**

10 **A.** No, I do not. In fact, his analyses are not "corrections" at all, but rather reflect his
11 criticisms of my Direct Testimony and the substitution of his model inputs for my inputs.
12 As I have described above, his criticisms and "corrections" are without merit and do not
13 reflect proper implementations of the DCF, CAPM, and CE analyses and should be rejected
14 by the Commission.

15 **Q. BASED UPON YOUR REVIEW OF WITNESS D'ASCENDIS' REBUTTAL**
16 **TESTIMONY, DO YOU STILL RECOMMEND A ROE FOR BGWC OF 9.45**
17 **PERCENT?**

18 **A.** Yes, I do. There is nothing in witness D'Ascendis' Rebuttal Testimony that causes
19 me to change my analyses, data sources, or recommendations.

³ *Bluefield Water Works and Improvement Co. v. Public Serv. Comm'n of West Virginia*, 232 U.S. 679 (1923).

⁴ *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1942).

1 Q But you -- but -- but, as you worked through the
2 process, you took into account these -- as you say,
3 these "unique attributes" of Blue Granite, and you
4 applied those to adjust upwards on your estimate?

5 A No. I did not adjust anything upward. Any point
6 from the range -- and my range is 8.9 to 10.0 --
7 any point from that range is -- in my view,
8 satisfies a fair rate of return. And I'm going to
9 the midpoint of the range.

10 Q But in -- in getting to that range, though, you --
11 and in calculating your components of that range,
12 you adjusted to the higher end of your DCF --

13 A I didn't adjust --

14 Q I -- I'm sorry. You just -- you just chose the
15 higher end?

16 A I chose the higher end for two reasons. First of
17 all, the DCF results are low by historic standards;
18 that's one reason. And also to give some
19 consideration to the perceived attributes.

20 Q Thank you, sir.

21 MR. ELLERBE: No -- nothing further. Thank
22 you, Mr. Chairman.

23 CHAIRMAN RANDALL: Thank you. Commissioners?
24 Commissioner Belser.

25 INTERIM VICE CHAIRMAN BELSER: Thank you, Mr.

Before the Public Service Commission of South Carolina
Columbia, South Carolina

Hearing # 20-11857 March 2, 2020 10:02 a.m.

Docket Number 2019-290-WS: Blue Granite Water Company
Application for Approval to Adjust Rate Schedules
and Increase Rates

TRANSCRIPT OF TESTIMONY
AND PROCEEDINGS

VOLUME 9 OF 10
[MERITS HEARING]

HEARING BEFORE: Chairman Comer H. "Randy" Randall;
Interim Vice Chairman Florence P. Belser;
Commissioner G. O'Neal Hamilton; Commissioner John
E. "Butch" Howard; Commissioner Swain E. Whitfield;
and Commissioner Thomas J. "Tom" Ervin

ADVISOR TO COMMISSION: Jo Anne Wessinger Hill, Esq.
Legal Advisory Staff

STAFF: Jocelyn Boyd, Esq., Chief Clerk/Executive
Director; William O. Richardson, Technical Advisory
Staff; John Powers, Technical Advisory Staff; Ginger
Crocker, Clerk's Staff; Jackie Thomas, Information
Technology Staff; Melissa Purvis, Livestream Technician;
Jo Elizabeth M. Wheat, CVR-CM/M-GNSC

COURT REPORTER: Kathleen R. Tackett, CVR-M

Q. PLEASE DESCRIBE THE FORMAT OF AUDIT EXHIBIT DFS-1 AND ELABORATE ON THE CALCULATIONS

A. Audit Exhibit DFS-1 details the Company's operating experience, rate base and rate of return for combined water and sewer operations for the test year. The exhibit's format is designed to reflect the application per books, ORS's proposed accounting and pro forma adjustments necessary to normalize the results of the Company's test year operations, and reflect ORS's adjustments necessary to achieve the return on equity recommended by ORS witness Parcell.

Column (1) details the application per books provided by BGWC for the test year. ORS verified total operating revenues of \$22,993,950, total operating expenses of \$22,928,089 and net income (loss) for return of \$238,496 to the Company's books and records. The per books rate base of \$64,157,538 produced a return on rate base of 0.37%. As shown on Audit Exhibit DFS-9, the resulting return on equity was -4.40%.

Column (2) details ORS's proposed accounting and pro forma adjustments designed to normalize the application per books. An explanation of each adjustment is contained in Audit Exhibit DFS-5.

Column (3) details ORS's results for a normalized test year for BGWC by adding columns (1) and (2). After the accounting and pro forma adjustments, net income (loss) for return of (\$755,613) was computed using total operating revenues of \$23,775,138, less total operating expenses of \$24,530,751. Total rate base of \$73,098,540 produced a return on rate base of -1.03%. As shown on Audit Exhibit DFS-9, the resulting return on equity was -7.05%.

1 actual incurred current rate case expenses based on supporting documentation
2 provided by the Company as of the audit cutoff date of December 20, 2019 of
3 \$145,148, for total rate case expenses of \$494,191. ORS's calculation of current rate
4 case expenses includes legal expenses of \$36,864 associated with Docket Nos. 2018-
5 358-WS and 2018-361-WS and Company provided supporting documentation as of
6 December 20, 2019. The Company's per book rate case expense amount was
7 \$108,294, resulting in an ORS adjustment of \$56,437.

8 Adjustment #16b – Purchased Services – Annual Rate Adjustment Mechanism Legal
9 Fees

10 The Company proposes an adjustment to regulatory commission expense to
11 include annual legal expenses associated with the purchased water and sewer annual
12 rate adjustment mechanism. ORS opposes this adjustment as discussed in the direct
13 testimony of ORS witness Sandonato.

14 Adjustment #17 – Pension & Other Benefits

15 ORS's total pension and other benefits adjustment is (\$165,041). This adjustment is
16 comprised of the following pension and other benefits adjustments:

17 Adjustment #17a – Pension & Other Benefits

18 ORS proposes an adjustment to annualize pension and other benefits
19 associated with pro forma salaries. Details of this adjustment are reflected in the
20 direct testimony of ORS witness Jackson.

21 Adjustment #17b – Service Awards

1 ORS proposes an adjustment to pension and other benefits to remove service
2 awards for ratemaking purposes. Details of this adjustment are reflected in the direct
3 testimony of ORS witness Jackson.

4 Adjustment #18 – Rent

5 ORS proposes an adjustment in the amount of \$84,839 to rent expense for pro forma
6 annualized leases. The Company adjusted for the pro forma annualized leases associated
7 with the following locations: Rock Hill office and warehouse, Anderson office, Greenville
8 office, Water Service Corporation (“WSC”) Public Storage, and WSC office. The Company
9 proposes an adjustment of \$95,826. The variance is attributable to the ORS proposal to
10 decrease the Greenville office annual lease expense by \$11,019, to correctly allocate lease
11 expense for 2 employees that are assigned to the Atlantic Division based on Company
12 response to Audit Request #17 which stated only 34.94% of their duties are applicable to
13 BGWC, and proposing to increase the WSC Public Storage annual lease expense charged to
14 BGWC by \$33 based upon the lease agreement.

15 Adjustment #19 – Insurance

16 ORS proposes an adjustment in the amount of \$163,371 to insurance to reflect the
17 most recent insurance policy premiums and deductible expenses. The Company proposes an
18 adjustment in the amount of \$201,243 to per book insurance expense based on policy
19 premiums and deductible expenses as of the filing of the application. ORS proposes an
20 adjustment to per book insurance expense based upon the Company’s responses to ORS
21 Audit Request #11 as of November 15, 2019. That update, as provided by the Company,
22 results in an increase to the Company’s per book insurance expense of \$166,273. ORS then
23 proposes to increase the updated insurance expense by \$5,460 based upon the insurance

two invoices going-forward. The Company calculated their adjustment by removing costs that were allocated to the Midlands BUs. These two invoices were not allocated to the Midlands BUs which is why these invoices were not removed by the Company in its calculation of this adjustment; and

2. ORS proposes to remove \$5,472 for a Carolina Lift Stations agreement for preventative maintenance included in the test year. Per the Company's response to ORS Audit Request #30, the ClearWater Solutions contract has overlap with the preventative maintenance performed as part of the Carolina Life Stations agreement. ORS's proposal to remove the \$5,472 is consistent with the same approach the Company used to remove the fuel costs for the test year that were allocated to the Midlands BUs.

Adjustment #9c – Amortization of Litigation Deferrals, Deferred Storm Costs, Decommissioning Costs and NBV of Decommissioned Assets

ORS proposes an adjustment in the amount of \$345,590 to adjust expenses for the amortization of the following: Administrative Law Court ("ALC") Cases – DHEC Permit Denial and I-20 Interconnect, I-20 Interconnect Phase 2, 2016 storm costs, Hurricane Florence Storm Costs, Stonegate Water Treatment Plant ("WTP") decommissioning and NBV, and Friarsgate WWTP decommissioning and NBV. The Company proposes an adjustment in the amount of \$483,212. The difference in adjustment amounts is attributable to the following:

1. ORS proposes to use the balance of \$159,612 for the I-20 Interconnect Phase 2 approved by the Commission in Docket No. 2017-292-WS whereas the Company used \$158,845 in their calculation;

- 1 2. ORS proposes to amortize the I-20 Interconnect Phase 2, 2016 storm costs, and
2 Hurricane Florence storm costs balances through April 30, 2020 due to new rates
3 going into effect in May 2020, whereas the Company proposed to amortize them
4 through December 30, 2019;
- 5 3. ORS proposes to update the decommissioning expenses and ALC case – DHEC
6 Permit Denial expenses based upon the Company's update to their workpaper X
7 provided to ORS on the audit cutoff date of December 20, 2019;
- 8 4. ORS proposes to decrease the Company's calculation of the NBV of Stonegate
9 WTP decommissioning by \$14,432 to account for an error in the Company's
10 calculation of the removal of the Stonegate WTP based upon the Company's
11 response to ORS Audit Request #22;
- 12 5. ORS proposes to amortize the NBV of the Stonegate WTP decommissioning
13 over 29.56 years, as compared to the Company's 19.82 years, based upon ORS
14 witness Garrett's depreciation rates applicable to the object accounts that were
15 affected by the removal of the Stonegate WTP; and
- 16 6. ORS proposes to amortize the NBV of the Friarsgate WWTP decommissioning
17 over 32.40 years, as compared to the Company's 19.72 years, based upon ORS
18 witness Garrett's depreciation rates applicable to the object accounts that were
19 affected by the removal of the Friarsgate WWTP.

20 Please see Audit Exhibit ADB-1 for ORS's breakdown of the deferred charges, the
21 amortization periods remaining and annual amortization.

22 Adjustment #10 – ClearWater Solutions - Maintenance Testing

1 ORS proposes an adjustment to annualize salaries attributable to maintenance
2 expenses. The Company proposes an adjustment in the amount of (\$1,155,286) to annualize
3 salaries and wages as of June 30, 2019. ORS proposes an adjustment in the amount of
4 (\$1,344,062) to annualize salaries and wages as of October 31, 2019 based on updated
5 information that was provided by the Company. The updated payroll information includes
6 salary and wage increases granted since the end of the test year, the removal of terminated
7 employees, and the addition of new employees hired since the end of the test year. ORS
8 verified salaries and wages of the employees by reviewing paystubs from the Company and
9 calculating hourly rates and yearly salary amounts.

10 Adjustment #6 – Capitalized Time

11 ORS proposes an adjustment to reflect the capitalized time based on pro forma
12 salaries. The Company proposes an adjustment in the amount of \$58,345 using the salary
13 and wages data as of June 30, 2019. ORS verified the capitalized time percentages from the
14 data as of June 30, 2019 and used those percentages on the annualized salary and wages data
15 from October 31, 2019 to propose an adjustment of \$73,614.

16 Adjustment #9e – Rebranding - Maintenance

17 ORS proposes to adjust maintenance and repair for rebranding expenses within the
18 test year. It is ORS's position that rebranding expenses should not be allowable for
19 ratemaking purposes as they are not necessary to provide water and wastewater services and
20 do not provide a benefit to customers. ORS views rebranding expenses as comparable to the
21 transition costs deemed not recoverable from customers in Commission Order No. 2018-804
22 pertaining to South Carolina Electric and Gas's ("SCE&G") merger with Dominion Energy.
23 Included within this adjustment are new uniforms identified by the Company in Audit

Request #12 as expenses related to the rebranding of Carolina Water Services, Inc. ("CWS"), to BGWC. The amount BGWC identified as rebranding for maintenance is \$12,832. ORS verified the expenses identified by the Company and proposes an adjustment of (\$12,832).

Adjustment #11b – Remove Meter Reading Expenses due to AMI

ORS proposes an adjustment of (\$28,067) to reflect the reduction in meter reading expenses due to the deployment of AMI in the Lake Wylie subdivision ("Lake Wylie"). ORS verified the adjustment by comparing the meter reading expense to the general ledger data for Lake Wylie.

Adjustment #12b – Remove Chemicals Associated with Decommissioned Plants

ORS proposes an adjustment of (\$31,519) to adjust the test year's chemical expenses for the removal of chemical expenses associated with the decommissioned Stonegate and Friarsgate treatment plants. ORS verified the adjustment by comparing the chemical expenses to the general ledger data for the Stonegate and Friarsgate treatment plants.

Adjustment #13b – Rebranding - Transportation

ORS proposes to adjust transportation for rebranding expenses within the test year. It is ORS's position that rebranding expenses should not be allowable for ratemaking purposes as they are not necessary to provide water and wastewater services and do not provide a benefit to customers. ORS views rebranding expenses as comparable to the transition costs deemed not recoverable from customers in Commission Order No. 2018-804 pertaining to SCE&G's merger with Dominion Energy. Included within this adjustment are vehicle logo and decal expenses related to the rebranding of CWS to BGWC. The amount BGWC identified as rebranding for transportation in Audit Request #12 is \$8,444. ORS has verified these expenses and proposes an adjustment in the amount of (\$8,444).

1 milestones. Included in the sample selected and analyzed by ORS were expenses for a 65”
2 LED Curved Samsung T and a 1.15 carat diamond ring from a vender named Awards
3 Network. ORS determined that all the items from this vendor were service awards and should
4 be treated as expenses that are not necessary to provide water and wastewater services and
5 do not provide a benefit to customers. ORS proposes an adjustment in the amount of
6 (\$3,211).

7 Adjustment #21b – AMI Data Support, York County Franchise Fees and York County Asset
8 Lease

9 ORS proposes an adjustment of \$214,731 to reflect the data support costs for
10 installing Lake Wylie AMI meters, along with the franchise and capital recovery fees
11 incurred due to the York County franchise agreement. The franchise agreement describes the
12 terms and conditions with respect to the lease of certain water and sewer service facilities in
13 York County that provide BGWC the non-exclusive franchise to operate water and sewer
14 systems in designated areas of the county. The agreement was approved by this Commission
15 on May 2, 2018, per Order No. 2018-325.

16 Adjustment #21d – Rebranding – Outside Services - Other

17 ORS proposes to adjust outside services for rebranding expenses within the test year.
18 It is ORS’s position that rebranding expenses should not be allowable for ratemaking
19 purposes as they are not necessary to provide water and wastewater services and do not
20 provide a benefit to customers. ORS views rebranding expenses as comparable to the
21 transition costs deemed not recoverable from customers in Commission Order No. 2018-804
22 pertaining to SCE&G’s merger with Dominion Energy. Included within this adjustment are
23 legal fees identified by the Company in Audit Request #12 as expenses related to the

1 rebranding of CWS to BGWC. In addition, ORS found several legal fees associated with
2 rebranding that were not identified by the Company. ORS proposes an adjustment in the
3 amount of (\$9,833).

4 Adjustment #23b – Non-Allowables - Miscellaneous

5 ORS proposes to adjust miscellaneous expenses for expenses within the test year that
6 are not necessary to provide water and wastewater services and do not provide a benefit to
7 customers. Included within this adjustment are expenses for dinners with alcohol in the
8 amount of \$3,992, and items that were not supported by sufficient documentation in the
9 amount of \$2,686. The items that were removed for lack of supporting documentation did
10 not contain a clear or valid business purpose or were not supported by itemized receipts. As
11 a result, ORS proposes an adjustment in the amount of (\$6,678).

12 Adjustment #26a – Payroll Taxes

13 ORS and the Company propose an adjustment to reflect payroll taxes associated with
14 the pro forma adjusted salaries & wages. The Company proposes an adjustment of (\$14,449)
15 using the salary and wages data as of June 30, 2019. ORS proposes an adjustment in the
16 amount of (\$33,874) based on the annualized salary and wages data from October 31, 2019
17 that was provided to ORS by the Company.

18 **Q. WILL OU UPDATE OUR TESTIMON BASED ON INFORMATION THAT**
19 **BECOMES AVAILABLE**

20 **A.** Yes. ORS fully reserves the right to revise its recommendations via supplemental
21 testimony should new information become available not previously provided by the
22 Company.

23 **Q. DOES THIS CONCLUDE OUR DIRECT TESTIMON**

1

EXAMINATION

2 BY COMMISSIONER ERVIN:

3 Q Mr. Sullivan, I'd like to direct you to your direct
4 testimony, dated January 23rd, 2020, Page 15,
5 beginning at Line 15. Do you see that?

6 A (SULLIVAN) That would be Adjustment 21c?

7 Q Yes, sir. I had a follow-up question about that.
8 In Adjustment 21c, you stated that ORS reclassified
9 legal expenses incurred by Blue Granite related to
10 two dockets, which were filed and withdrawn by the
11 company. You reclassified these expenses from test
12 year legal expenses to current rate case expenses.
13 And my question is: Why would ORS recommend
14 allowing inclusion of these expenses in the rate
15 case when the legal expenses were related to
16 dockets withdrawn by the company?

17 A (SULLIVAN) Our position on that is both of those
18 dockets, although they were withdrawn -- the -- the
19 first docket, the 2018-358-WS was what the company
20 calls "pass-through mechanism." We'd refer to an
21 annual rate adjustment mechanism. Those -- that --
22 that docket was to try to establish whether that --
23 the company should be allowed to pursue an annual
24 rate adjustment mechanism. They withdrew that
25 docket, but now that has become part of this

1 docket. And so, therefore, even though they
2 withdrew the cost incurred by the company to -- to
3 put their -- their -- formulate their application,
4 formulate their position, etc., it's now being
5 heard as part of this docket.

6 The -- the second is the LETTS tank: it's the
7 same -- it's the same situation where now we are we
8 handling a change in the LETTS. Our pumping
9 interceptor tanks is changing the tariff and how
10 that is to be recovered from ratepayers, that has
11 now become an item for discussion in this docket.

12 Q Well, don't we still have a duty to determine the
13 prudence of these expenditures by the company?

14 A (SULLIVAN) ORS determined that they were prudently
15 incurred expenses, and that's why we've included
16 them in our adjustment. And, essentially, what
17 we've done -- and I just want to elaborate: by --
18 by removing it out of the test year where those
19 expenses were included at 100 percent, dollar for
20 dollar, by moving those or reclassifying those
21 expenses to the rate case expense adjustment, which
22 this adjustment now is -- is proposed to be
23 amortized over three years, it actually spreads the
24 cost out to the customer over a longer period of
25 time, instead of them getting the entire expense in

1 we didn't -- we didn't find any -- really any
2 discrepancies in the operating expenses on it.

3 Q Do -- do they still maintain and have the Columbia
4 office?

5 A (SULLIVAN) No, sir. They -- that is no longer
6 included in rate base and from my understanding --

7 Q Did they own it?

8 A (SULLIVAN) They did own it. It's no longer
9 included in this case in rate base. It's been
10 removed. So, therefore, it hasn't been included in
11 the setting or the determination of the revenue
12 requirement in this case, and I believe they
13 subsequently sold that building.

14 Q And you have no idea of what they received from it?
15 Usually, we get requests when companies ask to sell
16 property. I don't recall this being before this
17 Commission.

18 A (SULLIVAN) Once it was removed out from rate base,
19 we -- we did -- we had another data request. I'm
20 sorry, I can't point you to the exact number, but
21 we did have another data request asking and we were
22 just told it was subsequently sold and we didn't
23 pursue any further since that office is not
24 included in the determination of the revenue
25 requirement, in this case.

1 Granite Water Company bills. At most, the proposal
2 would provide a \$50 one time during the program
3 year -- or excuse me -- provide \$50 one time during
4 the program year.

5 Q Please summarize ORS's recommendations regarding
6 the proposed round-up program.

7 A (BICKLEY) ORS recommends that the company's
8 proposed round-up program be modified to prevent
9 costs of the voluntary program being mandated on
10 all customers. These are estimated costs that do
11 not contribute to the company's ability to provide
12 safe and reliable service.

13 Q Regarding normalization of storm costs, please
14 summarize your review.

15 A (BICKLEY) ORS reviewed the company's past ten
16 years of storm restoration costs using a ten-year
17 average, and after removing the high and low
18 values, ORS's review found the average yearly storm
19 cost to be \$28,320.51.

20 Q What is ORS's recommendation regarding
21 normalization of storm costs?

22 A (BICKLEY) ORS recommends a normalization
23 adjustment of \$23,481. This method of
24 normalization of storm costs more accurately
25 reflects the expected storm costs for each year.

1 Q Has this method previously been approved by the
2 Commission?

3 A (BICKLEY) Yes.

4 Q Regarding the proposed storm reserve fund, does the
5 company's proposal outline any guidelines for
6 company access to the fund?

7 A (BICKLEY) No. The company's proposal would allow
8 unrestricted use of the fund once the company's
9 incurred storm costs exceeded the approved base
10 rate recovery level. For example, should the
11 Commission approve ORS's recommendation for storm
12 normalization, the company would have access to the
13 fund once the company had incurred \$28,321 in storm
14 damage.

15 Q Does the company's historical data show a need for
16 a \$200,000 storm reserve fund?

17 A (BICKLEY) With the exception of Hurricanes Michael
18 and Florence, the company has not had a history of
19 -- of extraordinary storm costs over the past ten
20 years. The company was granted deferred accounting
21 treatment for the costs related to those storms,
22 which is an acceptable method to recover costs that
23 has been approved by this Commission.

24 Q Are the customers -- I'm sorry.

25 Are the customer protections related to the

do not contribute to the provision of safe and reliable water and sewer service. ORS's adjustment is reflected in ORS Witness Sullivan's Audit Exhibit DFS-5, Adjustment 15b.

Normalize Storm Costs

Q. IS THE COMPANY PROPOSING TO RECOVER THE COST ASSOCIATED WITH STORM DAMAGE AS PART OF BASE RATES?

A. Yes. The Company proposes to include an expense of \$51,802 for storm costs.²⁴

Q. PLEASE EXPLAIN ORS'S ADJUSTMENT TO NORMALIZE STORM COSTS.

A. The Company experienced storm restoration expenses during the Test Year of \$51,802. ORS reviewed the previous 10 years (2010 – 2019)²⁵ of storm restoration costs the Company incurred, excluding the costs related to Hurricanes Florence and Michael in September/October 2018 since the Company was granted deferred accounting treatment for the costs related to these storms per Order No. 2019-125 in Docket No. 2019-17-W. Due to fluctuations in annual storm restoration costs, ORS recommends eliminating the expenses in the highest and lowest years and to use an eight-year average expense level. For the data pertaining to year 2019, ORS prorated the amount based on the information BGWC provided to ORS on November 22, 2019. Given the above criteria, ORS found the long-term average yearly storm costs to be \$28,320.51.

Therefore, ORS recommends the normalization adjustment of \$23,481. This is reflected in ORS Witness Sullivan's Exhibit DFS-5, Adjustment #9d. Normalization of storm costs using this method has been approved by this Commission in Order Nos. 2019-341 and 2019-323.

Proposed Storm Reserve Fund

²⁴ Direct Testimony of Dante DeStefano, Page 22, Lines 7-8.

²⁵ Responses to EOR #6, Question 10 and EOR #28, Question 1.

its shareholders paying for or contributing to the costs associated with starting and administering the program, but instead the Company's proposal assigns the costs for the program to its customers.

Q. DO YOU AGREE WITH COMPANY WITNESS DESTEFANO'S STATEMENTS THAT THE CONSUMER ADVOCATE'S POSITION FOR THE PROPOSED ROUND UP PROGRAM IS A REASONABLE COMPROMISE?

A. No. Company witness DeStefano appears to take the Consumer Advocate's position of allowing for the costs to be deferred with a cap and suggests using a cap of fifty-thousand dollars (\$50,000), however, ORS's previously iterated concerns remain. The reasonable option is to require shareholders to pay all costs, including, but not limited to all administrative and communication costs, for any such program.

Normalize Storm Costs

Q. HAS ORS UPDATED ITS POSITION OR RECOMMENDATIONS FROM DIRECT TESTIMONY REGARDING NORMALIZATION OF STORM COSTS?

A. No. ORS maintains the same positions and recommendations as noted in my Direct Testimony. ORS's adjustment reflected in ORS witness Sullivan's Audit Exhibit DFS-5, Adjustment #9d did not change in Surrebuttal Audit Exhibit DFS-5, Adjustment #9d.

Q. DO YOU AGREE WITH COMPANY WITNESS DESTEFANO'S RESPONSE IN REBUTTAL TESTIMONY TO USE A FIVE-YEAR AVERAGE?

A. No. While Company witness DeStefano does not oppose using a multi-year average of costs, I do not agree with using a five (5) year average (2015-2019) to normalize storm costs. ORS has consistently used a ten (10) year average when proposing normalization of storm costs in past rate proceedings (see Docket No. 2018-319-E and

Commission Order No. 2019-323 for a recent example). This is a more representative method to ensure enough data is gathered and used over a reasonable period of time to form an accurate view of storm costs. Using a five (5) year average as proposed by witness DeStefano would not allow for significant outliers that occur due to fluctuations in annual costs to be determined and removed from the average. Using a ten (10) year average allows for a more complete assessment of costs over time. Therefore, ORS recommends that the Commission reject witness DeStefano's proposal to use a five (5) year average for the normalization of storm costs.

Proposed Storm Reserve Fund

Q. HAS ORS UPDATED ITS POSITION OR RECOMMENDATIONS FROM DIRECT TESTIMONY REGARDING THE PROPOSED STORM RESERVE FUND?

A. ORS maintains the same positions and recommendations as discussed in my Direct Testimony with two (2) exceptions. Should the fund be approved, ORS modifies its recommendations for customer protections regarding insurance proceeds and quarterly reporting as outlined below.

Q. DO YOU AGREE WITH COMPANY WITNESS DESTEFANO'S STATEMENTS REGARDING SERVICE RELIABILITY?

A. No. In my Direct Testimony, I point out that based on the Company's responses in discovery, the Company states that it "has not identified any water or sewer customers who have lost service due to storm damage in the last five (5) years." While Company witness DeStefano does identify statements the Company provided in discovery, he outlines normal issues with any storm and discusses interruptions of service for which the Company is

revenue water.¹ The Company calculated non-revenue water for subdivisions served by a third-party water provider and the cost associated with non-revenue water greater than 10% for a given subdivision for the twelve (12) months ending November 30, 2019.² Following a review of the data provided by the Company, ORS determined the following subdivisions experienced greater than 10% non-revenue water during the twelve (12) months ending November 30, 2019:

Table 1: Subdivisions with Non-Revenue Water > 10%

Subdivision	Non-Revenue Water
Hill and Dale	52.9%
Peachtree Acres	48.8%
Hidden Lakes	35.8%
Leon Bolt	35.3%
Westside Terrace	29.8%
Washington Heights	23.2%
Charleswood	21.5%
Stonegate (North Pines)	20.8%
I-20	20.2%
Hidden Lake	18.2%
Watergate/Spence Point/Mallard Shores	16.6%
Country Oaks	15.1%
River Hills	14.1%
Calhoun Acres	13.9%
Dutchman Shores	12.8%
Windward Point-Harbour Place	12.8%
Foxwood	12.5%
Clearview	12.1%
Farrowood	11.4%
Rollingwood	11.4%
Dutch Village/Dutch Creek	11.3%

¹ Direct Testimony of Bryce Mendenhall, Page 16, lines 12-13

² Response to Energy Operations Request ("EOR") #27, Question 1

1 The Company experienced a large increase to the number of subdivisions with more
2 than 10% non-revenue water since its last rate case. In Docket No. 2017-292-WS, there
3 were three (3) subdivisions with more than 10% non-revenue water based on the data
4 provided by the Company; whereas, data provided by the Company for this rate case shows
5 twenty-one (21) subdivisions with more than 10% non-revenue water as shown in the
6 above table.

7 ORS's recommendation to limit recovery of purchased water expenses in each
8 subdivision to 10% non-revenue water insulates the ratepayer from non-revenue water
9 impacts and incentivizes the Company to monitor and mitigate non-revenue water. This
10 adjustment is consistent with the non-revenue water adjustment recommended by ORS and
11 not disputed by the Company in Docket No. 2017-292-WS and subsequently accepted by
12 the Commission in Order No. 2018-345(A). This is also consistent with American Water
13 Works Association's benchmark for non-revenue water.³

14 **Q. PLEASE EXPLAIN ORS'S ADJUSTMENT TO THE PURCHASED WATER**
15 **DEFERRAL ACCOUNT.**

16 **A.** ORS recommends an adjustment of \$50,929 to reduce the Purchased Water
17 Deferral Account for Service Territories 1 and 2 to limit the customer's responsibility for
18 non-revenue water expense to 10% in each subdivision. The ORS adjustment is reflected
19 in ORS Adjustment 8a. ORS used the data provided by the Company in EOR #27 to
20 calculate the aggregate non-revenue water across all subdivisions served by a third-party
21 water provider, which resulted in an aggregate calculation of 15.38% non-revenue water
22 across all subdivisions.

³ Committee, A.L.D.a.W.A. (1996), Committee report: water accountability. Journal - American Water Works Association, 88: 108-111. doi:10.1002/j.1551-8833.1996.tb06590.x

1 **Q. WHY DID ORS USE AN AGGREGATE VALUE FOR NON-REVENUE WATER**
2 **ACROSS ALL SUBDIVISIONS TO CALCULATE THE ADJUSTMENT FOR THE**
3 **DEFERRAL ACCOUNT?**

4 **A.** The purchased water deferral account is a relatively complex accrual of increased
5 third-party wholesale rates. An aggregate calculation for non-revenue water is reasonable
6 and conservative because it includes ten (10) subdivisions that realized water gain during
7 the twelve (12) months ending November 30, 2019 (i.e., Company records indicate that the
8 Company sold more water to customers than the Company purchased from the third-party
9 water provider). The phenomena that produced the water gain in ten (10) subdivisions
10 highlights a flaw in the Company's data management, such as metering accuracy, and
11 subsequent water balance calculations. Thus, ORS's conservative aggregate non-revenue
12 water percentage is lower than the aggregate when using only those subdivisions that
13 realized non-revenue water over the same period.

14 **Q. PLEASE EXPLAIN WHY ORS USED THE TWELVE (12) MONTHS ENDING**
15 **NOVEMBER 30, 2019, AND NOT THE TEST YEAR ENDING JUNE 30, 2019.**

16 **A.** Given the availability of more recent third-party wholesale provider purchases and
17 customer consumption data, and to recognize system improvements made by the Company
18 from the end of the Test Year through November 30, 2019, ORS determined purchased
19 water and consumption data from the twelve (12) months ending November 30, 2019 is a
20 reasonable and more accurate reflection of the Company's operating experience moving
21 forward.

22 **Q. DOES ORS HAVE ANY RECOMMENDATIONS FOR BGWC TO MONITOR**
23 **AND MITIGATE NON-REVENUE WATER IN THE FUTURE?**

1 A. Yes. The high number of subdivisions that experienced greater than 10% non-
2 revenue water during the twelve (12) months ending November 30, 2019 is concerning and
3 the Company should prioritize the reduction of non-revenue water. The Company has
4 taken some steps to attempt to mitigate non-revenue water since the last rate case, such as
5 the Lake Wylie Water Meter Replacement Program. However, this effort only impacts one
6 subdivision and does not address real losses, such as potential leaks, within the Company-
7 owned distribution system.

8 ORS recommends that the Company expand its efforts to monitor and mitigate non-
9 revenue water across all service territories, particularly those that are served by a third-
10 party provider where there are relatively higher monetary costs associated with non-
11 revenue water.

12 ORS also recommends that BGWC have annual water audits performed by an
13 independent third-party vendor to evaluate non-revenue water within its water systems and
14 provide mitigation recommendations to the Company. This continual auditing program
15 would allow the Company to better track non-revenue water, correct data management
16 errors, and more accurately quantify how infrastructure improvement projects are affecting
17 non-revenue water. ORS recommends the Company file its annual water audit performed
18 by an independent third-party with the ORS and the Commission.

19 **Adjustment to Office Upgrades**

20 Q. PLEASE EXPLAIN ORS'S ADJUSTMENT TO THE BGWC OFFICE UPGRADES.

21 A. ORS recommends an adjustment of \$495,206 to eliminate cost recovery for the
22 BGWC Office Upgrades. The ORS adjustment is reflected in ORS Adjustment 32.

1 **Q. WHAT IS ORS'S REASON FOR THE ADJUSTMENT TO ELIMINATE THE**
2 **BGWC OFFICE UPGRADES?**

3 **A.** ORS recommendation reflects ORS's position that the Company's decision to
4 relocate its West Columbia, SC office to Greenville, SC was unreasonable and the cost of
5 upfitting the leased space in Greenville should not be the responsibility of the customers.

6 **Q. WHAT JUSTIFICATION DID THE COMPANY PROVIDE AS TO WHY IT**
7 **CHOSE TO RELOCATE OFFICES TO GREENVILLE?**

8 **A.** The Company's justification for relocating was as follows:

9 "The primary focus of the office relocation was to attract and retain the
10 professionals needed to maintain and improve the Company's ability to provide
11 utility service at reasonable cost. The Company and the industry as a whole has an
12 aging workforce, and the eligible workforce is shrinking, so ensuring that the right
13 professionals are being attracted to the Company and retained by the Company is
14 fundamental to the Company's ability to continue providing quality and cost-
15 effective service. The Company looked at Greenville and Columbia/West
16 Columbia as location options. We used CBRE data (attached) to compare labor
17 statistics of Columbia versus Greenville and decided upon Greenville. The
18 Greenville office is within walking distance of our outside engineers (GMC) and
19 peer utilities, Pacolet Milliken and Duke Energy, and offers additional
20 conveniences to current and potential employees. The Columbia area did not have
21 these same benefits. Customers benefit from the acquisition and retention of
22 talented employees for the Company, which can minimize turnover costs and
23 institutional knowledge loss over time. Please see attached file "Office Expenses"
24 for the Columbia office costs offset by rent expense for the Greenville office."⁴

25 **Q. THE COMPANY STATED THAT IT USED CBRE DATA TO COMPARE LABOR**
26 **STATISTICS BETWEEN COLUMBIA, GREENVILLE, AND WEST COLUMBIA.**
27 **CAN YOU DESCRIBE THE CBRE DATA?**

28 **A.** The Company submitted copies of the CBRE "Profiles" for the three (3) locations.⁵
29 Copies of the CBRE Profiles for each location are attached as Exhibit KDM-1. Upon

⁴ Response to EOR #14, Question 1

⁵ Response to EOR #14, Question 1

review of the data, it appears that CBRE looked at several market metrics within a specified distance (radius) from a given location to create labor supply and labor cost indices. ORS points to the following statements from the CBRE Profiles as further explanation:

“A profile is the combination of data points and their assigned weighting scheme that represents a given set of criteria for one of multiple skill sets. This profile is based on a basic set of criteria that can be further customized upon request.”

and

“Index scores are calculated so that they are relative to the national average. With national indices having a value of 100, all scores above 100 indicate a positive attribute, while scores below 100 indicate a negative attribute. **Cost scores are inverted so that a score above 100 indicates a lower cost market than the national average.**” [no emphasis added]

The overall score for a given location is defined by its “Total Index Score.” The Total Index Scores for each location were as follows:

- Greenville – 105
- Columbia – 103
- West Columbia – 101

Q. DOES ORS BELIEVE THE CBRE PROFILES PROVIDED BY THE COMPANY RESULT FROM AN EQUITABLE COMPARISON BETWEEN EACH LOCATION?

A. No. The Company used a 20-mile radius to evaluate market metrics for Columbia and Greenville, whereas the Company used a 10-mile radius for West Columbia.

Q. HOW WOULD THE USE OF A 20-MILE RADIUS FOR WEST COLUMBIA OR A 10-MILE RADIUS FOR COLUMBIA AND GREENVILLE IMPACT TOTAL INDEX SCORES?

A. It is unclear how this would impact the Total Index Scores. ORS asked the Company to provide a 20-mile profile for West Columbia and 10-mile profiles for Columbia and Greenville, but the Company stated that it no longer had access to the CBRE database and were not able to produce such profiles at the different radii.⁶ ORS notes that the smaller 10-mile radius for West Columbia excludes municipalities such as Blythewood, Chapin, and portions of Lexington, among others; municipalities that would have been included if using a 20-mile radius.

Q. DOES ORS BELIEVE THAT THE DIFFERENCE IN THE TOTAL INDEX SCORES MERITS THAT CUSTOMERS SHOULD PAY THE COST TO RELOCATE TO AND UPFIT THE COMPANY'S NEW OFFICE?

A. No. The Company stated the following when asked if a two-point difference in the Total Index Score represented a material difference between the two regions:

"Looking specifically at the reports supplied in response to Energy Operations Request #14, the Market Index values support a notably stronger workforce availability, quality, and supply for Greenville. While the Skill Set value is lower, this simply means the workers in Greenville may have generally less experience, this means there is less potential for an aging workforce and more opportunity to add new talent who can shape the culture of the Company going forward. These Market Index values also result in the Optimal Balance value placement in the Optimal Quadrant, with Columbia outside this quadrant."⁷

ORS contends this is a subjective argument and that the 2- to 4-point difference in Total Index Scores does not justify the high cost to relocate to and upfit the Company's new office be paid by BGWC customers.

Q. DO CUSTOMERS HAVE BETTER ACCESS TO THE COMPANY'S ADMINISTRATIVE OFFICE FOLLOWING THE RELOCATION?

⁶ Response to EOR #25, Question 1

⁷ Response to EOR #25, Question 1

1 A. No. A significant portion of the Company's customers live in central South
2 Carolina, near where the Company's headquarters used to be located, and north-central
3 South Carolina, whereas a relatively small number of customers live in or around
4 Greenville. For example, 11,971 (or 43.0%) of the Company's customers live in Lexington
5 County and 10,750 (or 38.6%) of the Company's customers live in York County, whereas
6 only 723 (or 2.6%) of the Company's customers live in Greenville County.⁸ A map
7 depicting customer counts by county is attached as Exhibit KDM-2.

8 Q. WHAT OTHER LOCATIONS OF THE STATE DID THE COMPANY
9 COMPARE?

10 A. The Company did not compare labor statistics of any other locations in the state.
11 The Company did not consider Rock Hill, SC or York County for the office relocation,
12 which would have been reasonable because these locations are near a significant
13 percentage of the Company's customers and an affiliate company has an existing office in
14 nearby Charlotte, North Carolina.

15 Q. IS THE COMPANY ABLE TO MAKE DECISIONS RELATED TO OFFICE
16 SPACE AND LOCATION WITHOUT COMMISSION APPROVAL?

17 A. Yes. However, ORS recommends any costs associated with office relocation and
18 office rent be thoroughly reviewed for cost recovery to ensure the Company took steps to
19 minimize cost and that the location of the office and the decision to lease or purchase the
20 office space is in the best interest of customers.

21 Q. WERE THERE COST SAVINGS THAT RESULTED FROM THE RELOCATION
22 TO GREENVILLE?

⁸ Response to EOR #25, Question 2

1 A. No. The Company did not identify any cost savings associated with the relocation
2 that would result in material and quantifiable overall benefits to the customers. The
3 Company attached a list of costs that would be “offset” by the rent expense for Greenville.⁹
4 This comparison showed that the Company would save \$27,260 by removing costs such
5 as water, sewer, electric, gas, landscaping, and property taxes, among other things.
6 However, the Company stated that the annual rent for the Greenville office would be
7 \$84,685 compared to the annual costs of \$27,260.

8 **Q. SHOULD THE COMPANY HAVE MINIMIZED THE COSTS ASSOCIATED**
9 **WITH THE OFFICE RELOCATION AND LEASED SPACE UPFIT?**

10 A. Yes. The Company failed to minimize the costs associated with the office
11 relocation and upfit. The Company’s office space contains many amenities for employees
12 such as the premium location in a historic building, luxury office finishes and
13 appointments, high-end office furniture, large communal spaces, and an overall large
14 footprint relative to the small number of employees. It is difficult to explain to customers
15 that struggle to pay their water and sewer bills why the Company should be allowed to pass
16 the expense of the office relocation and upfit to customers through higher rates.

17 **Q. ARE THE BGWC OFFICE UPGRADES IN THE BEST INTEREST OF**
18 **CUSTOMERS?**

19 A. No. The Company did not provide reasonable justification to merit the large one-
20 time expense of the BGWC Office Upgrades and the relocation and upfit did not result in
21 material cost savings to benefit customers.

⁹ Response to EOR #14, Question 1

1 **Q. DOES ORS MAKE A CORRESPONDING ADJUSTMENT TO LIMIT**
2 **RECOVERY OF THE OFFICE LEASE EXPENSE?**

3 **A.** No. ORS did not limit the recovery of lease expenses for this office outside of ORS
4 Adjustment 18 as described by ORS witness Sullivan.

5 **Friarsgate Interconnection Project**

6 **Q. DID ORS VISIT THE FRIARSGATE INTERCONNECTION PROJECT DURING**
7 **ITS REVIEW?**

8 **A.** Yes. ORS conducted a site visit to review the status of the Friarsgate
9 Interconnection Project on January 7, 2020.

10 **Q. WHAT WAS THE CONDITION OF THE EQ BASIN AT THE TIME OF ORS'S**
11 **SITE VISIT?**

12 **A.** ORS witnessed a "whaling" of the EQ liner during the site visit. Whaling occurs
13 when gases build up and become trapped underneath the EQ liner. The gases concentrate
14 in a localized area and create a "bubble" that elevates a portion of the liner above water
15 surface within the basin.

16 **Q. WILL ADDITIONAL WORK NEED TO BE PERFORMED ON THE EQ BASIN**
17 **TO FIX THESE OPERATIONAL ISSUES?**

18 **A.** Yes. The Company is addressing a warranty issue with the contractor and engineer
19 from the project relating to the whaling of the EQ liner.¹⁰

20 **Q. WHAT ARE ORS'S RECOMMENDATION REGARDING THE EQ BASIN**
21 **REHABILITATION?**

¹⁰ Response to EOR #37, Question 6

Non-Revenue Water

Q. COMPANY WITNESS MENDENHALL STATES THAT THE COMPANY IS IMPLEMENTING AMERICAN WATER WORKS ASSOCIATION (“AWWA”) RECOMMENDED MEASURES AGAINST NON-REVENUE WATER.¹ THIS INCLUDED ITEMS SUCH AS REVIEWING DATA AND PREPARING AN AWWA WATER BALANCE. DID ORS REVIEW THE COMPANY’S WATER AUDIT DATA?

A. Yes. ORS requested that the Company submit completed water audits for each subdivision operated by the Company using the AWWA’s free Water Audit Software. The Company responded as follows:

The AWWA software has not been utilized by the Company since its last rate case. In lieu of providing the software results, BGW is submitting its water accountability report titled “Monthly Water Acct Form – SC” for all water systems, which **provides comparable information.** The first tab of the report (System List) has active links to individual tabs for each system/subdivision.² [emphasis added]

Within the Water Accountability Report, the workbook for each subdivision contains data entry fields related to AWWA’s water balance, such as water supplied (e.g., water pumped or purchased), revenue water (e.g., metered billing), and non-revenue water, which includes individual components of non-revenue water such as unbilled authorized consumption (e.g., flushing, firefighting, etc.), apparent losses (e.g., meter errors, data handling errors, or unauthorized consumption), and real losses (e.g., leaks) for each month. The Company’s data for water supplied and revenue water is well documented, which in turn is used to calculate overall non-revenue water. However, the majority of data fields

¹ Rebuttal Testimony of Bryce Mendenhall, Page 4, lines 25-26

² Response to First Request for Production of Books, Records, and Other Information 1.89

1 for individual components of non-revenue water are empty (i.e., no documented value). In
2 general, the documented components of non-revenue water consisted of relatively few data
3 entries for main/hydrant flushing and leak events. The water audit data provided by the
4 Company fails to provide insight into the individual components of non-revenue water
5 within a given subdivision that are contributing to non-revenue water.

6 The Water Accountability Report was also the basis for the calculations made by
7 the Company to determine the amount of non-revenue water for subdivisions served by a
8 third-party water provider and the cost associated with non-revenue water greater than 10%
9 for a given subdivision, which was updated through the twelve (12) month period ending
10 November 30, 2019.³ During the twelve (12) months ending November 30, 2019, the
11 summation of flushing and leak events documented by the Company in the Water
12 Accountability Report for all subdivisions served by a third-party water provider were
13 926,385 gallons and 701,530 gallons, respectively. A listing of the flushing and leak events
14 for each subdivision as documented by the Company for the twelve (12) months ending
15 November 30, 2019 is found in Surrebuttal Exhibit KDM-1.

16 To put these figures in perspective, documented flushing events across all
17 subdivisions served by a third-party water provider accounted for less than 1% of the
18 combined total water input and combined total non-revenue water in these subdivisions
19 over the twelve (12) month period ending November 30, 2019. Similarly, documented leak
20 events across all subdivisions served by a third-party water provider accounted for less than
21 1% of the combined total water input and combined total non-revenue water in these
22 subdivisions over that same twelve (12) month period. The cause of the remaining

³ Response to Energy Operations Request ("EOR") #27, Question 1

combined total non-revenue water is not explained by the Company's water audit data. It is difficult to pinpoint the major causes of non-revenue water or make informed recommendations for water loss control and infrastructure in a given subdivision using the Company's water audit data.

Q. COMPANY WITNESS MENDENHALL DISAGREED WITH YOUR STATEMENT THAT "THE COMPANY EXPERIENCED A LARGE INCREASE TO THE NUMBER OF SUBDIVISIONS WITH MORE THAN 10% NON-REVENUE WATER SINCE ITS LAST RATE CASE.⁴ HOW DO YOU RESPOND?

A. Company witness Mendenhall's disagreement does not change the fact that more than half of the Company's subdivisions that purchase water from a third-party provider realized more than 10% non-revenue water. It should be noted that even if the subdivisions over which Mr. Mendenhall takes exception are removed from the comparison, the number of subdivisions with more than 10% non-revenue water still triples from Docket No. 2017-292-WS to this proceeding.

Q. COMPANY WITNESS MENDENHALL NOTES THAT THERE ARE SUBDIVISIONS THAT ARE PARTIALLY SERVED BY COMPANY WELLS. HOW HAS ORS TAKEN THIS INTO ACCOUNT IN ITS CALCULATIONS AND RECOMMENDATIONS?

A. ORS is proposing an allocation of non-revenue water costs based on the percentage of total water supplied from the third-party provider for the five (5) subdivisions noted by Company witness Mendenhall that were partially supplied by Company wells.⁵ ORS recommends an adjustment of \$251,311 to reduce the Purchased Water expenses for

⁴ Rebuttal Testimony of Bryce Mendenhall, Page 5, lines 10-11

⁵ Stonegate, Leon Bolt, Washington Heights, Charleswood, Country Oaks

1 Service Territories 1 and 2 to limit the customers responsibility for non-revenue water
2 expense to 10% in each subdivision.

3 **Q. COMPANY WITNESS MENDENHALL STATES THAT LEAK DETECTION**
4 **STUDIES ALONE WOULD COST MORE THAN THE ANNUAL COST OF NON-**
5 **REVENUE WATER ABOVE ORS'S THRESHOLD.⁶ DO YOU AGREE WITH HIS**
6 **STATEMENT?**

7 **A.** No. For each individual subdivision, the cost of a leak detection study does not
8 exceed the cost of non-revenue water greater than 10% based on the cost data provided by
9 Company witness Mendenhall.⁷ Additionally, the costs associated with excessive non-
10 revenue water would be annual costs. The Company did not state whether the leak
11 detection studies would be a one-time or recurring cost, and if the studies would be
12 recurring, the Company does not state the frequency of such studies. Given the lack of
13 comprehensive water audit data, the Company does not know whether leaks are a
14 significant contributor to non-revenue water.

15 **Q. COMPANY WITNESS MENDENHALL STATES THAT A MORE REASONABLE**
16 **APPROACH WOULD BE TO SET GOALS FOR EACH SYSTEM.⁸ HOW DO YOU**
17 **RESPOND?**

18 **A.** The suggestion from Company witness Mendenhall assumes that the Company has
19 comprehensive water audit data for each subdivision to guide such system-specific goals.
20 As the Company has not presented such data in response to ORS requests, ORS contends
21 that a single numeric threshold for all subdivisions, as implemented in the Company's last

⁶ Rebuttal Testimony of Bryce Mendenhall, Page 7, lines 14-15

⁷ Rebuttal Testimony of Bryce Mendenhall, Pages 7-8, Table 1

⁸ Rebuttal Testimony of Bryce Mendenhall, Page 8, lines 1-4

1 rate case, remains appropriate. Under the circumstances of this case, ORS's threshold is
2 reasonable in that it realizes an acceptable level of non-revenue water may occur, while
3 simultaneously protecting the Company's customers from excessive non-revenue water.

4 **Q. WHY SHOULD A NUMERIC THRESHOLD FOR NON-REVENUE WATER BE**
5 **ACCEPTED BY THE COMMISSION?**

6 **A.** Absent comprehensive water audit data from the Company or a directive from this
7 Commission on how to adjust for excessive non-revenue water, ORS contends that a
8 numeric threshold for non-revenue water is the appropriate and reasonable method to
9 ensure customers are protected against excessive non-revenue water while realizing an
10 acceptable level of non-revenue water may occur. The first step towards the Company
11 mitigating the impacts of non-revenue water should be enhanced efforts to collect,
12 document, and analyze its water audit data. The Company does not appear to have taken
13 this first step yet.

14 **Q. WHAT NUMERIC THRESHOLD IS THE COMPANY PROPOSING IN THIS**
15 **PROCEEDING?**

16 **A.** The Company has proposed the use of a 20% threshold for non-revenue water if
17 the Commission deems a threshold limit appropriate.⁹ Table 1 below provides a
18 comparison of the total non-revenue water adjustments using the ORS's recommended
19 10% threshold and the Company's recommended 20% threshold, assuming the only change
20 to the analysis is the non-revenue water threshold.

⁹ Rebuttal Testimony of Bryce Mendenhall, Page 9, lines 13-14

Table 1: Non-Revenue Water Adjustment Comparison

Adjustment	10%	20%
Purchase Expense	\$251,311	\$40,741
Purchase Deferral	\$16,976 ¹⁰	\$0 ¹¹
TOTAL	\$268,287	\$40,741

Q. DO YOU AGREE WITH THE COMPANY'S PROPOSED 20% NON-REVENUE WATER THRESHOLD?

A. No. While the Company did not object to the 10% non-revenue water threshold recommended by ORS in Docket No. 2017-292-WS, the Company contests it in this proceeding. The non-revenue water adjustment in this case has a larger impact on expenses than the non-revenue water adjustment in Docket 2017-292-WS. However, because 10% is both appropriate and reasonable, the monetary size of the adjustment should not change the non-revenue water threshold used by ORS or the Company's position on the previously utilized non-revenue water threshold.

Q. SHOULD THE COMMISSION AUTHORIZE DEFERRAL TREATMENT OF THIRD-PARTY WATER AUDIT COSTS, AND THE ACCRUAL OF CARRYING COST AT THE COMPANY'S AUTHORIZED COST OF DEBT, TO FACILITATE RECOVERY IN THE NEXT RATE CASE?

A. No. ORS agrees the Company and their third-party water auditor should work to reduce non-revenue water. Moving forward, the Company should increase its efforts to collect, document, and analyze water audit data; data that will help pinpoint the major causes of non-revenue water in each of the Company's subdivisions and provide informed

¹⁰ This calculation is based upon a \$50,929 impact to the deferral balances that is amortized over there (3) years

¹¹ ORS used an aggregate non-revenue water value of 15.8% for the purchased water deferral adjustment

guidance for specific remedies. Third-party water audit costs are expenses that could be evaluated for recovery in the Company's next rate case. There should be no deferral treatment or carrying costs.

Greenville Office Upgrades

Q. HAS ORS'S POSITION REGARDING DISALLOWANCE OF COSTS ASSOCIATED WITH THE MOVE TO GREENVILLE CHANGED?

A. No. Company witness Denton states that attracting talent in Columbia has been difficult due to brand issues in the market. Specifically, he stated that:

The Company considered its **brand impact** in each market and used CBRE data to compare labor statistics. Attracting talent in the Columbia market has been extremely difficult due to the **legacy brand issues** in the market.¹²
[emphasis added]

In Docket No. 2018-365-WS, the Company provided a notice that was sent to its customers regarding the Company's rebranding efforts. A copy of this notice is attached as Surrebuttal Exhibit KDM-2. An excerpt from this notice to customers reads:

It's an exciting time at our company, and as we look forward, we are **refreshing our brand at no cost to our customers** to reflect our legacy and to showcase our new direction. [emphasis added]

As stated above, Company witness Denton reasons that legacy brand issues diminished the Company's ability to acquire talented workers in the Columbia market. The Company asserts its rebranding and relocation were aimed to alleviate the Company's talent acquisition issues. The Company represented to its customers that the refreshing of the Company's brand would be at no cost to them and is now contradicting that representation by attempting to pass on to customers relocation and office upgrade costs that were part of its rebranding.

¹² Rebuttal Testimony of Donald Denton, Page 6, lines 4-7

1 The long-term issues that caused the Company's brand to hinder talent acquisition
2 in the Columbia area is not the fault of customers. Nor is the former location of the
3 Company's headquarters in Columbia the cause of any talent acquisition problems. Such
4 problems were caused by the Company, not its location. Customers should not pay for the
5 offenses of past Company management and all rebranding costs, including those associated
6 with the relocation and Greenville office upgrades, should be the burden of the Company's
7 shareholders as was stated in their notice to customers.

8 **Q. COMPANY WITNESS DENTON DESCRIBES THE OFFICES AS "UP TO DATE**
9 **AND FUNCTIONAL, BUT THEY ARE NOT LUXURIOUS OR GOLD-**
10 **PLATED."**¹³ **HOW DO YOU RESPOND?**

11 **A.** Company witness Denton's use of the term "functional" to describe the Company's
12 Greenville office implies the space is simply practical. ORS would respectfully disagree.
13 The Company spent nearly \$50,000 per employee on the office upgrades. This cost per
14 employee does not consider the recurring lease expenses that have been included for
15 recovery in this rate proceeding. As outlined in my direct testimony, the Company did not
16 provide reasonable justification to merit the large one-time expense of the upgrades. ORS
17 also contends that the Company failed to make reasonable efforts to minimize the costs.

18 **Q. WILL YOU UPDATE YOUR TESTIMONY BASED ON INFORMATION THAT**
19 **BECOMES AVAILABLE?**

20 **A.** Yes. ORS fully reserves the right to revise its recommendations via supplemental
21 testimony should new information not previously provided by the Company, or other
22 sources, become available.

¹³ Rebuttal Testimony of Donald Denton, Page 4, lines 22-23

1 **A.** Yes. The Company proposes to add a Sewer Treatment Charge which will impact
2 all Sewer Collection customers. The Sewer Treatment Charge is a fixed rate per Single
3 Family Equivalent ("SFE"). It is ORS's understanding the Sewer Treatment Charge will
4 change on an annual basis in accordance with the ARA Mechanism proposed by the
5 Company and outlined in BGWC witness DeStefano's direct testimony. The Sewer
6 Treatment Charge will be calculated by the Company on an annual basis utilizing the
7 Company's aggregate annual purchased sewer treatment expense from third-party
8 providers and annualized SFE data for all Sewer Collection customers. The Company
9 proposes to reduce the Residential and Commercial per unit Charge. The addition of the
10 Sewer Treatment Charge and the reduction in the per unit Charge are equal, until the next
11 ARA Mechanism proceeding. Therefore, if the Sewer Treatment Charge is approved by
12 the Commission, a Sewer Collection customer will experience a monthly bill that contains
13 two (2) separate charges for monthly sewer service: (1) Residential or Commercial per unit
14 Charge and a (2) Sewer Treatment Charge.

15 **Q. PLEASE EXPLAIN THE IMPACT ON CUSTOMER BILLS OF THE**
16 **COMPANY'S PROPOSED RATE INCREASE AND CHANGE TO RATE DESIGN.**

17 **A.** The Company does not propose to consolidate the rates for Service Territory 1 and
18 2 in this proceeding. The following table demonstrates the impact on a typical residential
19 customer using 6,000 gallons per month of water in Service Territory 1 and 2 and for the
20 typical impact for a residential customer receiving sewer service from the Company.

1 MR. WELLBORN: Mr. Bickley has offered
2 testimony related to this program, and -- and
3 to support his proposition that it doesn't
4 follow, I guess, that the program would --
5 would lower uncollectibles.

6 MR. HUBER: His testimony is because there
7 wasn't sufficient data to make a -- opine on
8 that.

9 CHAIRMAN RANDALL: Okay. We're going to
10 sustain that.

11 MR. WELLBORN: Thank you, Mr. Chairman.

12 Q Storm costs normalization, Mr. Bickley, rather than
13 use the figure proposed by the company, ORS
14 proposed a ten-year storm cost normalization; is
15 that right?

16 A (BICKLEY) Yes. That's correct.

17 Q And in its rebuttal testimony, the company stated
18 that it believed that a five-year normalization
19 would be more appropriate in this case; is that
20 right?

21 A (BICKLEY) Yes. That's what the company stated.

22 Q But in your surrebuttal, you said that ORS had
23 consistently used a ten-year storm cost
24 normalization, and you cited to the Duke Carolinas
25 rate case; is that right?

1 A (BICKLEY) Yes. I did.

2 Q Were you aware at the same time as the Duke
3 Carolinas rate case there was a Duke Progress rate
4 case going on?

5 A (BICKLEY) Yes.

6 Q And do you recall whether ORS agreed in that case
7 to a five-year storm cost normalization?

8 A (BICKLEY) I was not a part of that proceeding. If
9 you pull up the testimony from ORS, ORS's testimony
10 documents a ten-year average. I do understand that
11 that case was stipulated, but I was not a part of
12 that stipulation. And I know that stipulations can
13 have many moving parts, so I'm not privy to what
14 all was involved with that discussion.

15 Q You're getting ahead of me a little bit, but we'll
16 -- we'll catch up.

17 MR. WELLBORN: (To Ms. Thomas) Could I get
18 the ELMO, please?

19 Q Could you tell me who this stipulation is between,
20 please?

21 A (BICKLEY) It says: "This stipulation is made
22 between the South Carolina Office of Regulatory
23 Staff, 'ORS,' and Duke Energy Progress, LLC, 'the
24 company,' together, 'the parties.'"

25 Q Thank you. I'm not an ELMO expert. Would you mind

1 reading, also, that yellow highlighted section?

2 A (BICKLEY) Sure. "Regarding Adjustment Number 22,
3 Normalization of Storm Costs, the parties agree to
4 use a five-year average, removing the highest
5 (2016) and the lowest (2013) year without any
6 inflation adjustment."

7 Q And do you recall how the Commission ruled on this
8 issue in that case?

9 A (BICKLEY) I believe they ruled in favor.

10 Q That's right. Would you mind reading that yellow
11 highlighted section for me, as well?

12 A (BICKLEY) "We find that the use of a five-year
13 average, removing the highest (2016) and the lowest
14 (2013) year without any inflation adjustment to be
15 appropriate."

16 Q And so the Commission approved five-year
17 normalization at last year's Duke Progress rate
18 case, right?

19 A (BICKLEY) Yes.

20 Q They found it to be appropriate in that case?

21 A (BICKLEY) It would seem so. However, in this
22 situation, as I've stated prior, ORS's direct
23 testimony from that rate case utilized the ten-year
24 average. And in this case ORS does believe that a
25 more accurate prospective method would be to use a

1 ten-year average.

2 Q Sure. Are you familiar with Mr. DeStefano's
3 prefilled testimony?

4 A (BICKLEY) Yes. I am.

5 Q And so you saw the table of storm costs that was
6 included with that testimony?

7 A (BICKLEY) Yes. I did.

8 Q What was your proposed storm cost normalization
9 figure again?

10 A (BICKLEY) The figure was \$28,320.51. That was the
11 average. Excuse me. Did you ask for the average
12 or the adjustment?

13 Q Your adjustment.

14 A (BICKLEY) Oh. One moment.

15 Q Sorry. Your -- your storm cost normalization.
16 That \$28,000 figure is what I was -- what I was
17 after, so you're --

18 A (BICKLEY) Okay.

19 Q I think we're communicating. Would that \$28,000
20 figure cover any one of the past five-year storm
21 costs?

22 A (BICKLEY) No. It would not. But, again, the
23 purpose of a normalization is to project costs
24 going forward. So as you see on that table that
25 you actually have on the ELMO, 2012, the costs were

1 \$1,510.19. In 2018, you have the highest charge of
2 \$54,716.21. So, as I said, the purpose of
3 normalization is to project the costs going
4 forward, and to essentially get a good average of
5 those costs. And using a ten-year average, per
6 ORS, our recommendation, we believe that gives you
7 a more comprehensive method.

8 Q I understand that's your recommendation, but
9 wouldn't you agree that what -- the more recent
10 trend is quite different from the ten-year trend?

11 A (BICKLEY) Just looking at the five years, yes, you
12 can see an increase. However, looking at the ten-
13 year, you get a more prospective method. You get a
14 more reasonable method of looking at storm costs.
15 The company could have proposed using the last two
16 years or the last three. They used the last five,
17 of course, but to get enough data sets to give you
18 a comprehensive and reasonable understanding, ORS
19 believes ten years is the better option.

20 Q Thank you for your opinion on that.

21 Mr. Maurer, a couple questions for you, and
22 we're going to start basic to get my own bearings.
23 Blue Granite's water pipes, by and large, are
24 buried underground, right?

25 A (MAURER) That's correct.

1 president of Blue Granite, is someone who seeks out
2 and promotes talented employees?

3 MR. HUBER: Objection. It's causing -- asking
4 the witness to speculate about what Ms. Heigel
5 does.

6 MR. WELLBORN: That's fine. I'll withdraw the
7 question, Mr. Chairman.

8 Q Is it correct that you're the first leader of the
9 Office of -- of Rural Water established at DHEC by
10 Ms. Heigel and her colleagues?

11 A (MAURER) Yes. I was the first employee in the
12 Office of Rural Water.

13 Q And you have great experience as an environmental
14 regulator at DHEC, right?

15 A (MAURER) I have five years of good experience as a
16 regulator at DHEC, yes.

17 Q But have you ever run a business?

18 A (MAURER) I have not run a business.

19 Q Have you ever worked as a recruiter in human
20 resources?

21 A (MAURER) I have not.

22 Q Have you had experience with attracting employees
23 to work for a private business before?

24 A (MAURER) No. I have not.

25 Q Do you have any office building construction

1 experience?

2 A (MAURER) No. I do not.

3 Q You used the term "office upgrade" or "upgrade,"
4 and we've heard it some today, but you used it 14
5 times in your prefiled testimony. Does that sound
6 about right?

7 A (MAURER) I did not quantify the number of times I
8 used it.

9 Q But you've consistently and repeatedly used the
10 word "upgrade;" would you agree to that?

11 A (MAURER) Yes. That's how I described it in
12 testimony.

13 Q Would you consider drywall to be an upgrade?

14 A (MAURER) I would consider drywall to be a -- a
15 renovation.

16 Q What about carpet?

17 A (MAURER) A renovation.

18 Q What about paint on the wall?

19 COMMISSIONER ERVIN: Counsel, excuse me for
20 interrupting, but I don't understand what the
21 relevance of all this is.

22 MR. WELLBORN: Commissioner Ervin, that's a
23 fair point. These were all costs that were
24 included in the company's office upfit costs
25 that are proposed to be disallowed by ORS.

1 COMMISSIONER ERVIN: Well, let's see if we can
2 move it along.

3 MR. WELLBORN: Yes, sir. Understood.

4 Q Correct me if I'm wrong, Dr. Maurer, but there's no
5 assertion in your testimony that the office upfit
6 in Greenville would've been more expensive had it
7 been in another city?

8 A (MAURER) I don't believe that I assert that. No.
9 I --

10 Q Thank you.

11 MR. WELLBORN: Thank you for indulgence. No
12 further questions.

13 CHAIRMAN RANDALL: Thank you. Commissioners?
14 Commissioner Hamilton.

15 COMMISSIONER HAMILTON: Thank you, Mr.
16 Chairman.

17 EXAMINATION

18 BY COMMISSIONER HAMILTON:

19 Q Mr. Bickley, I have a question for you. On Page 21
20 of your direct testimony, you recommend a series of
21 protective measures that ORS would like to see
22 built into a storm reserve fund.

23 A (BICKLEY) Yes, Commissioner.

24 Q Do you recommend a storm reserve fund?

25 A (BICKLEY) ORS is not opposed to a storm reserve

BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA
[York, South Carolina]

HEARING # 20-11857

MARCH 5, 2020

6:00 P.M.

DOCKET NO. 2019-290-WS:

Blue Granite Water Company - Application for Approval to Adjust
 Rate Schedules and Increase Rates

TRANSCRIPT OF TESTIMONY
 AND PROCEEDINGS

VOLUME 10 OF 10

HEARING BEFORE: Comer H. 'Randy' RANDALL, *Chairman*; Florence
 P. BELSER, *Interim Vice Chairman*; and COMMISSIONERS John
 E. 'Butch' HOWARD, Thomas J. 'Tom' ERVIN, Swain E.
 WHITFIELD, and O'Neal HAMILTON

ADVISOR TO COMMISSION: F. David Butler, Esq.
 Legal Advisory Staff

STAFF: Jocelyn Boyd, Chief Clerk/Executive Director; William O.
 Richardson, Technical Advisory Staff; Virginia 'Ginger' Crocker,
 Patricia Stephens, and Afton Ellison, Clerk's Staff; Rob Bockman,
 Public Information Officer; and Jo Elizabeth M. Wheat, CVR-CM/M-
 GNSC, Court Reporter

APPEARANCES:

SAMUEL J. WELLBORN, ESQUIRE, representing BLUE
 GRANITE WATER COMPANY, APPLICANT

MICHAEL KENDREE, ESQUIRE, representing YORK
 COUNTY OF SOUTH CAROLINA, INTERVENOR

JIM KNOWLES, appearing *pro se*, INTERVENOR

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

101 EXECUTIVE CENTER DRIVE
 COLUMBIA, SC 29210

WWW.PSC.SC.GOV

POST OFFICE BOX 11649
 COLUMBIA, SC 29211

1133

1 The proposed increase of 55 percent is more
2 than an average teacher's salary in our school
3 district. We understand that there are costs
4 associated with providing any service, and we
5 certainly need an adequate supply of reliable
6 freshwater. It's essential for our operations – if
7 you can imagine what happens when we have to shut
8 down three schools with over 2500 students and
9 provide appropriate water and sewer services for
10 them. However, rate increases not coupled with
11 improved services significantly hinders our ability
12 to provide proper instructional programs. We can't
13 run without water and sewer. We have to have
14 appropriate pressure in order for our toilets to
15 work properly.

16 Increases could also cause our resources to be
17 shifted from instructional needs to utilities, if
18 you think about those dollars. Adequate
19 communication is also essential, because
20 interruptions in service cause us to interrupt our
21 instructional program. This was severely lacking
22 in the most recent case that we had a water line
23 break. We have experienced challenges in this
24 area, because we need to be on time every day, and
25 a regular basis. And we need to have quality

1 service on time, and a regular basis.

2 We thank you again for coming. We appreciate
3 your sharing your time and we appreciate your
4 listening to our comments and making the
5 appropriate calculations. We are expecting an
6 increase of service and reliability as we move on
7 with these improvements.

8 CHAIRMAN RANDALL: Thank you, Mr. Love.

9 WITNESS: Thank you, sir.

10 CHAIRMAN RANDALL: Questions from the parties?
11 Questions?

12 [No response]

13 Commissioners? Commissioner Ervin.

14 COMMISSIONER ERVIN: Thank you, Mr. Chairman.

15 EXAMINATION

16 BY COMMISSIONER ERVIN:

17 Q Mr. Love, is there just one school district in York
18 County or more than one?

19 A There are four school districts in York County. Clover
20 is the only one served directly by Blue Granite.

21 Q And so, have you had any problems in the Clover area
22 with the service that the company has provided you for
23 water and sewer?

24 A We have had some breaks both in the Lake Wylie area
25 served by Blue Granite, as well as the Clover area

1 served by the Town of Clover.

2 Q And when did those breaks occur, if you can recall,
3 approximately?

4 A The Blue Granite was roughly six weeks or so ago.
5 Clover's was just last week.

6 Q How were they handled? Who called the company and how
7 did they respond?

8 A The Town of Clover called us when this happened last
9 week. We just finished that – the final test came back
10 this week. We learned from Blue Granite when the
11 pressure went down, and then after we made some calls on
12 our behalf, then the Blue Granite representative started
13 calling us, letting us know when the water was expected
14 to be completed.

15 Q How long did it take to restore service?

16 A About three days.

17 Q Three days?

18 A Yes, sir.

19 Q And so –

20 A We missed a full day and a half of school.

21 Q You had to cancel school?

22 A We had to cancel school.

23 Q Were you under a boil-water advisory after that, for a
24 time?

25 A Yes, sir. We provided several pallet loads of bottled

1 water for our students.

2 Q What about lunch in the cafeteria?

3 A We provided some cafeteria food by bags, and we brought
4 some food in from other schools in the district.

5 Q Was the entire community affected, as well?

6 A The entire Lake Wylie area was, yes. We perhaps were a
7 little cautious, in terms of the boiled water, because
8 we have so many students, we have so many students that
9 do have health problems. So we would provide the
10 bottled water for them, even if we weren't advised to do
11 so.

12 Q Three days of lost service, it sounds to me like an
13 inexcusable delay. What happened?

14 A It was a major break on Highway 274 that took a while to
15 get repaired.

16 Q When was the other break you referred to?

17 A The other break was on Highway 321. That was bringing
18 the supply of water from Gastonia to the Town of Clover.

19 Q How long did it last?

20 A It was three days, as well. We just finished that this
21 week.

22 Q And you missed school, as well, for that one?

23 A We - we did not have to close the school for that. We
24 had enough notice and were prepared to make it through
25 there.

1 Q We appreciate you coming tonight, and thank you for your
2 testimony.

3 A Thank you, sir.

4 CHAIRMAN RANDALL: Commissioner Belser.

5 EXAMINATION

6 BY INTERIM VICE CHAIR BELSER:

7 Q Thank you, Mr. Love. Appreciate you being here tonight.
8 Can you – do you know if the break that occurred, that
9 affected the school six weeks ago, was that on Blue
10 Granite's lines or was that on somebody else's lines?

11 A That was on Blue Granite's lines.

12 Q Okay. And how about the one that affected Clover?

13 Q That was on Clover's line. See, the Lake Wylie – Clover
14 school district is 21 miles long, seven miles deep –
15 seven miles wide. The Town of Clover provides water
16 service for the schools on the western side of the
17 county, and it gets its water supply from the Town of
18 Gastonia, pipes it down. On the eastern side of the
19 county, the eastern side of our school district, Blue
20 Granite provides it and it encompasses the area that we
21 refer to as Lake Wylie.

22 Q Yes, sir.

23 A It gets its water from the county, which gets its water
24 from the Town of Rock Hill that is piped up Highway 274.

25 Q All right, sir. Thank you. I appreciate that

1 explanation. Now, you mentioned in your statement
2 wanting adequate communication. Tell me what you mean.
3 Can you explain what you're looking for, and what was
4 done and how it needs to be improved?

5 **A** We would appreciate it if the Blue Granite folks would
6 let us know if they anticipate a disruption in service
7 or a change of quality or something like that, that
8 they're aware of. And on the morning of that particular
9 break, if they had let us know earlier, we still
10 probably would've ended up with the same case of closing
11 school because of the water supply, but it was a day and
12 a half, or so, before we learned about it from them. We
13 learned about it because pressure went down, and the
14 fire department let us know that we had a challenge.

15 On the other side, the Town of Clover called us
16 that afternoon at 4 o'clock or so, as soon as they
17 noticed the break, and we were able to prepare for the
18 next day.

19 **Q** Thank you, very much. Appreciate your testimony.

20 **A** Yes, ma'am.

21 **CHAIRMAN RANDALL:** Thank you.

22 Commissioners, any other questions?

23 Commissioner Howard.

24 <

25 <

1 representatives tonight.

2 I have several points I'd like to make. I
3 really want to focus a portion of my discussion
4 around some of the billing issues that I've
5 experienced with Blue Granite. I've been a paying
6 customer, my family and I, for 14 years. And my
7 extended family, my parents, have been customers of
8 this organization for over 30 years.

9 Recently there was some type of systematic
10 conversion that occurred with the billing system,
11 and during that process some notifications were
12 going out and, of course, the regular billing
13 cycles were being issued. And during that window,
14 we were, of course, paying our bills, and we've
15 never been late. Pay our bills on time. We had
16 automated service. And we paid a bill in a
17 particular month and got another cycle of
18 information coming through, where evidently,
19 unbeknownst to us, there was an account number
20 change that occurred without our knowledge. So one
21 afternoon, I was working from home. I walked
22 outside and had a little pink ticket sitting
23 outside my door, and my water had been cut off. No
24 forewarning, no information, nothing. I called my
25 husband. My husband said we paid that bill on

1 time. He went and looked at our records; we could
2 see the deposited check. And this information,
3 this money, was in Blue Granite's coffers, but our
4 water was turned off that very day.

5 So we got in touch with them, and they were
6 responsive that day, of course, because we were not
7 going to be satisfied otherwise, to have that water
8 turned back on, because, again, we had paid our
9 bills and this was not any error of our own. So,
10 succinctly, that was done that evening, due to my
11 husband's coercive discussion with the
12 representative, and we did get our water turned
13 back on that day.

14 My problem with that is that I, too, work in
15 an area of increased regulatory scrutiny, and when
16 something like this is going on and there's a
17 conversion of that magnitude, you have to do your
18 due diligence to ensure that checks and balances
19 are in that system to avoid those types of
20 mistakes. I was not the only person that got
21 impacted in this way. We have several community
22 forums; other people have voiced that they had a
23 similar thing happen. So, this is just absolutely
24 ridiculous that your water would be cut off but
25 your payment would have been taken and accepted.

1 So I really want to urge the Council and
2 Commissioners to, you know, look at this very
3 closely and strategically. We need a better plan
4 for what's going on if, in these instances, we
5 can't even count on the bills being correct or any
6 type of double-check occurring before that type of
7 severity of action is taken. It's just ridiculous.

8 In addition to that, we've had poor water
9 quality over time, and I urge you to decline.

10 [3-minute signal]

11 Thank you for your time.

12 CHAIRMAN RANDALL: Thank you, Ms. Transou.
13 Questions.

14 MR. WELLBORN: Yes, Mr. Chairman.

15 **CROSS EXAMINATION**

16 **BY MR. WELLBORN:**

17 **Q** Ms. Transou, may I ask about when the billing issue
18 happened?

19 **A** The system conversion occurred –

20 **VOICE:** Couple months ago.

21 **WITNESS:** – about six months ago, maybe? Last
22 year, 2019. I don't have an exact date.

23 **BY MR. WELLBORN:**

24 **Q** And was the company able to resolve the issue,
25 ultimately? You talked about the steps that you'd taken

1 some faith that maybe something would change, and
2 that maybe there would be a new infrastructure.
3 Last summer, we experienced an outage on one of our
4 drives, our main drive, Pelham, and we were not
5 notified. But I was walking with my 94-year-old
6 neighbor and said, "What's going on?" And what I
7 heard was, "Oh, yeah, we've got a water leak.
8 We're trying to find it, and we've got to patch
9 it." Well, when you look at your water bill, you'd
10 wish it wouldn't be a patch.

11 I want to thank you for your consideration,
12 but please consider the people of not only Foxwood
13 but the people of South Carolina. It is ridiculous
14 to hear of a 55 percent increase. I really did
15 pray it was a typo. Thank you.

16 **CHAIRMAN RANDALL:** Thank you, Ms. Cunningham.

17 Any questions? Hang on, Ms. Cunningham. Any
18 questions?

19 [No response]

20 Commissioners, any questions?

21 [No response]

22 Thank you, ma'am. I made you run back just
23 for that.

24 [Laughter]

25 [WHEREUPON, the witness was excused.]

1 years now – water customers.

2 I have one comment that I'll raise about a
3 billing process, that we've just encountered.
4 Around the 12th of December of 2019, we received
5 our usual monthly notification by e-mail from Blue
6 Granite that our water bill was posted – in this
7 case, in the amount of \$304.28. Now, given the
8 time of year and we aren't watering our lawn, and
9 the two of us are the only ones living in the
10 house, we were a little shocked by that, but, we
11 pay our bills, so we went on with it. And in this
12 case, we paid by automatic draft to Blue Granite.
13 Well, imagine our surprise and confusion when, on
14 January 9, 2020, we received a letter from Blue
15 Granite saying we were in arrears \$54.28 and, if we
16 did not take action the next 10 days, our service
17 may be severed without further notification.
18 Obviously, we were a little concerned, so my wife
19 called Blue Granite and learned that Blue Granite
20 had placed a cap on our auto-draft of \$250,
21 apparently to avoid the customer being overdrawn,
22 presumably because of the high cost of water bills.
23 The problem is, Blue Granite never advised us this
24 is what they were doing. We only found out after
25 we called.

1 We also learned that Blue Granite had imposed
2 a late fee on the account because we were
3 overdrawn – or –

4 [Laughter]

5 – over our auto-draft, excuse me. Now, after
6 discussing it with the technician, we have an auto-
7 draft cap now \$450 for our water bill. Now,
8 remember, we don't have sewer, just water. That is
9 a shocking but, sadly, not unheard of amount to pay
10 for water from Blue Granite.

11 I am a retired Army colonel. My wife and I
12 and our kids served throughout the world and have
13 lived in a number of places after moving 17 times,
14 and I can tell you, in several instances, we paid
15 for local water, and we have never paid a rate as
16 high as we pay here, anywhere, and we have never
17 encountered a billing situation like we just
18 encountered.

19 We hope you will take that into account when
20 you decide to deny this rate increase, and I thank
21 you very much for the opportunity to share this
22 information with all of you.

23 CHAIRMAN RANDALL: Thank you. Thank you for
24 being here.

25 Questions?

1 CHAIRMAN RANDALL: Thank you, Ms. Tomchin.

2 Hang on.

3 Any questions?

4 [No response]

5 Thank you very much for being here, Ms.

6 Tomchin.

7 [WHEREUPON, the witness was excused.]

8 MR. BOCKMAN: Next up, Johnnie Viets, followed
9 by Laura Parks and John Kissinger. John Kissinger
10 to the front, please.

11 [Witness affirmed]

12 THEREUPON came,

13 J O H N N I E V I E T S ,

14 who, having been first duly affirmed, testified as follows:

15 MR. RICHARDSON: Please state your name.

16 WITNESS: Good evening. My name is Johnny
17 Lynn Viets. I live at – on Thorn Ridge Lane, in
18 The Landing; that's in Lake Wylie.

19 I am retired high-school economics teacher. I
20 live with my husband, who is also retired; he's a
21 retired forester and retired military. We have
22 been in the area 17 years.

23 On January 6, 2020, our water was shut off
24 about 11 a.m. No one rang the doorbell. Our
25 credit rating is above 800, and the bank records

1 showed that the water bill had been paid. I called
2 customer service; after 90 minutes of speaking with
3 at least two different people, I discovered that
4 they had no record of payment. The only way to
5 have the water restored was to call another number
6 and pay \$200.96 via credit/debit card. I gulped,
7 but I did this knowing that I had bank records
8 showing we owed nothing. The water was restored
9 that afternoon about 4 p.m.

10 I called a local Blue Granite representative,
11 who researched the account, and a few days later
12 said I would receive a credit. I wanted a full
13 refund – just one second – and he said he would
14 take care of it. A few weeks later, I received a
15 partial refund and a credit to the account.

16 My concern was, what was Blue Granite doing
17 with my \$200 while I was waiting for a partial
18 refund. I eventually did get it, even though I was
19 charged a \$40 reconnect fee, and that was
20 eventually taken off my bill.

21 My concern is that I went through four layers
22 of communication before my situation was resolved.
23 It was resolved. I volunteer at Clover Area
24 Assistance Center, in Clover. People come in to
25 get financial assistance, usually for utilities. I

1 \$1100 I could use for my retirement plan, \$1100 I
2 could use to support my community in different
3 initiatives, transportation, and sustainable
4 community growth.

5 So, as you deliberate, I just ask that you
6 take that \$1100 into consideration and what that
7 means for other people. Thank you.

8 **CHAIRMAN RANDALL:** Thank you, Mr. Higgins.
9 Any questions?

10 [No response]

11 Commissioners.

12 **INTERIM VICE CHAIR BELSER:** Yes, sir.

13 **CHAIRMAN RANDALL:** Thank you – oh,
14 Commissioner Belser.

15 **EXAMINATION**

16 **BY INTERIM VICE CHAIR BELSER:**

17 **Q** Mr. Higgins.

18 **A** Yes.

19 **Q** Tell me again about your billing issues.

20 **A** Yeah. So, in December of 2019, we were billed for
21 11,822 gallons of water. It averaged 3500 dollars –
22 3500 gallons over the last three years, between
23 Charlotte and Lake Wylie, and that's our daily usage for
24 two adults, a baby, and another baby. So, that took –
25 it just actually got corrected about two weeks ago. We

1 finally got a credit on our bill. So, what, three
2 months to get that corrected? And three meter readings,
3 by the way – three different meter readings, which I had
4 to call and use some persuasive language to get people
5 to come out –

6 [Laughter]

7 – and say there's no way I can use 11,000 gallons
8 of water.

9 Q And were you disconnected at some point?

10 A Yeah, that was in – that was a different incidence.

11 Q Okay.

12 A So, in January, like people that you've we've heard from
13 before, we were just randomly disconnected without
14 notice.

15 Q You had no notice.

16 A No notice. Just a pink letter and our water didn't
17 work. I also had a pregnant wife and two babies, so
18 that was really pleasant.

19 Q Are you paying your bill online, or writing a check –

20 A It's automatic draft.

21 Q – or automatic draft?

22 A Uh-huh.

23 Q And did you check your bank account?

24 A Yeah, it's always drafted.

25 Q And it was –

1 **A** The bill was –

2 **Q** – drafted?

3 **A** – paid, correct. The bill was –

4 **Q** It was drafted and you were disconnected.

5 **A** Uh-huh.

6 **Q** Thank you, very much. I appreciate your testimony.

7 **A** Absolutely.

8 **CHAIRMAN RANDALL:** Thank you.

9 Commissioners, other questions?

10 [No response]

11 Thank you, very much. Appreciate you being
12 here.

13 [WHEREUPON, the witness was excused.]

14 **MR. BOCKMAN:** Next we have Frank Bynum. Frank
15 Bynum, Julia Csokasy, and Jeannie Robbins. Jeannie
16 Robbins to the front, please?

17 [Witness affirmed]

18 THEREUPON came,

19 **F R A N K B Y N U M ,**

20 who, having been first duly affirmed, testified as follows:

21 **MR. RICHARDSON:** Please state your name for
22 the record.

23 **WITNESS:** My name is Frank Bynum. I live in
24 Foxwood, like many of the other speakers.

25 Our subdivision is next to another subdivision

1 pension for employees, payroll taxes, capitalized
2 time, transportation costs related to rebranding,
3 and the changeover to digital meters, just to name
4 a few.

5 While it seems obvious that charging its
6 customers for optional expenses that are unrelated
7 to the level of service they will receive is
8 outrageous, I'm here to protest these proposed
9 increases by sharing my family's experience with
10 Blue Granite just over the last year.

11 The clean and reliable water supply is a basic
12 human need. Since becoming Blue Granite customers,
13 we've endured multiple water outages and boil-water
14 advisories. In just a six-month span in 2019
15 alone, we were without running water five separate
16 times: May 9th, May 14th, June 18th, July 20th,
17 and October 9th. The outage in October forced
18 schools to close and caused local businesses
19 countless dollars in lost revenue from being unable
20 to serve their customers.

21 CHAIRMAN RANDALL: Ma'am? Ma'am, Ms. Csokasy,
22 just a minute.

23 [Discussion off the record]

24 I know you're nervous. Our court reporter's
25 computer jumped, so -

1 on deck.

2 [Witness affirmed]

3 THEREUPON came,

4 C E L I A B R O O M E ,

5 who, having been first duly affirmed, testified as follows:

6 MR. RICHARDSON: Please state your name.

7 WITNESS: My name is Celia Broome. I live at
8 477 Snapdragon Drive, in the Summerset at Autumn
9 Cove neighborhood. We've lived there since
10 September of 2014. However, I was raised in the
11 Lake Wylie area.

12 I just want to go on about the customer
13 service. I wasn't going to come to this meeting.
14 I had planned on it, but then after what has
15 happened this week with Blue Granite, I knew I had
16 to, to come tell what they have done to our
17 neighborhood, and how rude and, just, they hate
18 people.

19 So, in September of 2014, we moved into our
20 house, my husband and I. At the time, my husband
21 had cancer, and we were going through a lot of
22 stuff, so I set myself up on auto-draft because
23 that is one thing I didn't have to worry about. I
24 knew my bills were getting paid.

25 So, approximately March of 2015, our water was

1 cut off. We were told that it was for nonpayment,
2 and I said, "But I'm on auto-draft. How did I get
3 a nonpayment?" And I looked it up, and they had
4 not drafted my account, and they said, "Well you
5 never turned your name in. Like, it's still under
6 the builder's name. You never changed your
7 account." And I was like, "Yes, I did. I have
8 proof," and I had old bills where they had drafted
9 my account and I could show them my bank account
10 where they've taken money out.

11 Well, Blue Granite had decided to – well, they
12 were Utilities, Inc. at the time – decided to just
13 delete my account, and said that I moved down the
14 road and that that's where – they wanted the people
15 who hadn't done it, and so they just decided to cut
16 my water off and let them have water and me pay
17 their bills, whereas I didn't have any. And, of
18 course, later that evening, they came and turned my
19 water on, after threatening a \$75 cut-off fee – or,
20 a turn-back-on fee, when I had done absolutely
21 nothing wrong.

22 Now, we got all that fixed, back on auto-
23 draft. Last year, I open a credit card that earned
24 points if I paid. So I said "Hey, why don't I put
25 my bills on this, earn some points?" Well, of

1 course, in December of 2019, my account number was
2 stolen and I had to change everything back to an
3 auto-draft. And I did. I logged onto my
4 Utilities, Inc., changed it back to my bank account
5 that was still saved on there, and went about my
6 day, saying, "Everything's good." Flash forward to
7 February 17, 2020. I leave my door to go to work,
8 I have an orange tag hanging on my doorknob to tell
9 me they had come and cut my water off for
10 nonpayment. And I couldn't understand why, and so
11 I called them. And they said, "Well, you never –
12 you never paid your account." I'm like, "Yes, I
13 did. I changed it to my bank account. What
14 happened?" And she was like, "Oh. Well, something
15 went wrong." I was like, "Well, let me give it to
16 you. I want to pay my bill." I don't want to be –
17 I don't want to neglect this. It's a bill. So I
18 changed it. I gave the lady my information. She
19 took my bank account information and she said,
20 "Yes, this bank account has been used on this
21 account before," and I said, "Yes, I've used it in
22 the past. It's what I want to use."

23 [3-minute signal]

24 I just have a little more. And she said,
25 "You're good." She gave me a number, I called, had

1 my water cut back on. I have the bill where it
2 says I paid that.

3 Last weekend, my dad's best friend died. We
4 drove him to Savannah, Georgia, to the funeral. We
5 had to check out of the hotel at 11 a.m., go to the
6 funeral at 2 p.m. It was 70 degrees in Savannah
7 Monday. We were sweating and walking all around
8 the city. We drive back to our house in Lake
9 Wylie, get there about 8:30 at night on Monday,
10 March 2nd. Oh, well, there's another orange tag on
11 our door. Our water's been cut off for nonpayment,
12 because they said that I never paid them, that I –
13 oh, I paid it that night, for the bill that I have
14 [indicating]. You all can have a copy of it. It
15 says that I owe \$141 and it shows that I paid \$303
16 on February – it says it went through on the 19th,
17 but it was the 17th. And so I paid that online to
18 see if I could get my bill turned back on.

19 They didn't come. The next morning I called
20 and said, "Hey, I need water. I have a toddler
21 and I have to go to work." And they said, "Well,
22 you still owe \$300." And I said, "Why? I paid
23 this." And they said, "No, you didn't. You don't
24 have enough money in your bank account and so you
25 overdrafted." I said, "There is no way that I

1 overdrafted. I know for a fact that I had the
2 money in that account to pay it." She said, "No,
3 you didn't. You need to call your bank." So I
4 paid them \$200 and I said, "Please, come turn my
5 water off - on. I need to take a shower. I need
6 to wash my kid," and they said, "We'll get there
7 when we get there."

8 I called my bank. The person at the bank
9 actually laughed at me and said, "They told you you
10 did not have enough money in your account?" And I
11 said, "Yes, they did." They said, "Well, if they
12 would've - if she would've actually billed us, we
13 would've paid the bill, but we received nothing
14 from Blue Granite requesting payment."

15 And so I called again and told them that, and
16 they said, "Well we can't help if you don't have
17 your money in your account." So I ended up
18 paying - this has a little - \$343.16 on that day,
19 for nothing, and I have two \$40 reconnect fees, for
20 nothing. It was not in my hands. I cannot fix
21 their billing system. I have the money; I told
22 them how to get it. What else am I supposed to do?
23 Am I supposed to actually take it out and hand it
24 to someone there? How many people use a card or
25 auto-draft to pay their accounts? And on the bill,

1 which I want you all to have, it shows that it's an
2 auto-draft, and it shows that I should only owe
3 \$141.

4 CHAIRMAN RANDALL: Thank you, Ms. Broome.
5 Any questions?

6 CROSS EXAMINATION

7 BY MR. WELLBORN:

8 Q I'm sorry to hear about your situation. Adam James, the
9 Director of Operations for the company, is in the
10 hallway here. It sounds like an evolving sort of
11 ongoing situation, and he'd be happy to address these
12 issues.

13 A Oh. And I also found out, when this happened — I asked
14 on Facebook, our community, and I was the fourth house
15 that had their water cut off that day, that all had a
16 bill that said it was due on the 16th of March.

17 Q It sounds like maybe some kind of system issue that day.
18 The company will look into it, Ms. Broome.

19 [Laughter]

20 A I think — like, is water not like a necessity?

21 MR. WELLBORN: No further questions, Mr.
22 Chairman.

23 CHAIRMAN RANDALL: Thank you.

24 Any other questions? Mr. Knowles.

25 <

CROSS EXAMINATION

BY MR. KNOWLES:

Q Ms. Broome, did you receive notice prior to your water being cut off on March 2nd or when it was cut off last year?

A No.

MR. KNOWLES: No? Yes, ma'am. Okay, thank you.

CHAIRMAN RANDALL: Thank you.

Other questions? Commissioner Ervin.

COMMISSIONER ERVIN: Can we put your bill in evidence?

WITNESS: Uh-huh.

COMMISSIONER ERVIN: Would you give it to him, so we can mark it for identification?

WITNESS: And it has the dates and stuff.

CHAIRMAN RANDALL: We need to make sure it's redacted – that you redact the information you don't want on there.

WITNESS: It's just my account number. I mean, if you want to pay my bill, go for it.

[Laughter]

CHAIRMAN RANDALL: Okay. We'll mark that for identification as No. 45.

Thank you, ma'am.

1 thousand gallon water bill. And I have a family of
2 four; usually about 4000-5000 is average.

3 Called them out. It took about three calls to
4 finally get somebody to come out, and he came out
5 and said I had a leak. I said, "Well, my water's
6 off. Let me go make sure." I went outside and
7 he's checking my neighbor's meter, so I said,
8 "That's not my meter. It's right here in front of
9 my house." And he kept looking and, you know, it
10 took a little convincing, but finally he realized,
11 yes, the meter number was wrong. So, apparently,
12 when they took the analog meter off, they gave the
13 final reading of my neighbor's on mine.

14 Long story short, my neighbor has a meter
15 number that doesn't even exist, on his bill. He's
16 tried to call several times and no callbacks, no
17 anything. I had the help of Allison, here, on my
18 behalf; she's been calling. I have called several
19 times, maybe up to six times trying to get somebody
20 to help me. Reassured me. They're actually quite
21 nice on the phone, very reassuring, but to no
22 avail. The guy came out three more times to test.
23 I've got cameras and everything else, so - he's
24 still checking the neighbor's meter. He's still
25 not convinced. And he - but - long story short, it

1 finally got resolved today, coincidentally. That's
2 been four months of waiting. My bill was as high
3 as \$530. I made two good-faith payments of \$130,
4 each, so the last bill I got was over \$400. And,
5 again, 4000 gallons is about my average. This has
6 not been the first time I've had 10,000-12,000
7 gallon usage, and they will come back on the next
8 month and it's 500 gallons. So you can see that on
9 the bill I have, as well, which I'm going to turn
10 over to you guys.

11 Interesting thing is, the neighbor had a
12 mishap, no ID on the meter number. My meter number
13 is 207; it still had 210, which is his meter
14 number. And then I checked my other neighbor,
15 which was in hospice at the time; she recently
16 passed. But -

17 [3-minute signal]

18 Sorry. But as soon as we lifted the cover
19 off, there's water spraying everywhere. Lord only
20 knows how long that's been leaking. So, that's it.

21 **CHAIRMAN RANDALL:** Thank you, Mr. Luckadoo.
22 Do you want - do you want to enter that, your bill,
23 in?

24 **WITNESS:** Right.

25 **CHAIRMAN RANDALL:** All right. We're going to

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Town of Lexington Municipal Complex, Conference Center
111 Maiden Lane, Lexington, SC 29072

Monday, January 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET



NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Barry Walker	902 Shadow Leaf Ct #2010	No
✓ Richard L. Everett	328 Moorland Lane	Yes
Joyce Reed	318 Broadleaf Dr. Lex, SC 29073	No
R Kapoor	204 RIVER BRIDGE	No
Judy Clay	1441 Oldchapin Rd, Unit B32 Lexington	No
Kirsten Pitman	10 High Hill Lane 29072	No
✓ George Lander	200 Clear Springs Dr. Lex SC 29072	Yes

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Town of Lexington Municipal Complex, Conference Center
111 Maiden Lane, Lexington, SC 29072

Monday, January 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Scott Smeekland	229 Forrester Ct. Lex	NO
✓ Chris Neely	132 Silverstone Rd Lex	Yes
✓ Sam Ibreak	123 Dovenside Dr. Lex	Yes
Hanna Ibreak	//	NO
Beverly Everett	328 Mooring Ln, Lex	NO
✓ Mary P. Cothran	408 Reedy River Ct. Lexington 29073	Yes
Kathy Fichtner	1441 Old Chapel Rd 111 Lexington 29072	NO
✓ Richard Thompson	201 Murray Vista Circle Lex, SC 29072	yes
✓ Melissa L Goforth	153 Heartwood Drive Lexington SC 29072	yes

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Town of Lexington Municipal Complex, Conference Center
111 Maiden Lane, Lexington, SC 29072

Monday, January 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Susan Gossett	2000 San Sus Dr. W. Cole SC 29170	?
Bruce Campbell	219 Gov Grant Blvd Lex	No
Charles Bingham	240 A/Sk Cr	NO
Chip Johnson	712 Carter Ln. Lex SC	NO
Haylen Hammon	220 Mac Circle Lex SC 29073	No
Anna Maria Lanke	407 Reedy River Ct, Lex 29073	No
✓ David Hatcher	330 Broadleaf Dr Lex	YES
✓ William Hansen	(14 High Hill Lane Lexington) 100 Warner Woods Rd Lexington	Yes
✓ JEREMY WITHRAN	408 REEDY RIVER CT LEXINGTON SC 29073	YES

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Town of Lexington Municipal Complex, Conference Center
111 Maiden Lane, Lexington, SC 29072

Monday, January 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Milton Wilmesherr	737 Ball PK Rd Lex, SC	NO
Jane Wilmesherr	737 Ball PK Rd Lex, SC	No
JULIA ADAMS	105 Alston Cir Lex	NO
JIM BECK	531 MILL CREEK RD. LEX	No
Janet Daurity	407 Solo Court	No
Simon MARCHANT	1003 MOORE GATE COURT, LEX	NO
✓ Walter Tarcza	256 Governors Grant Blvd	Yes
Winston Hammond	220 Mac Circle Lex	NO
John Fichter	1441 Old Chapin Rd unit 111	Nah

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Town of Lexington Municipal Complex, Conference Center
111 Maiden Lane, Lexington, SC 29072

Monday, January 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Phyllis Gonzales	253 Allenbrooke Way LEX	No
JORI SECOR	144 PINE POINT DR. LEX	NO
Sheila Gordon	1007 Moore Gate Court	NO
Kennedy Stauffer	116 Gold RD 29072	no
Riland Gossett	2000 SAN SALS DR	NO
Leslie Bumgardner	240 Alston Circle	No
Laura Johnson	712 Charter Lane	NO
Teri Smith	150 River Bridge Lane Lex	NO
MARY McCants	309 MOORING LANE Lex, SC 29072	NO

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Town of Lexington Municipal Complex, Conference Center
111 Maiden Lane, Lexington, SC 29072

Monday, January 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ RYAN ARIAIL	198 Golden Pond Dr. Lex	Yes
Linda Fillmore	1441 Old Chapin Rd, Lex SC	NO
Jack BARBER	320 Morning Lane Lex SC 29072	No
Russ Stocken	537 Harbour Pl. CT, Lex	NO
Adam James	3918 Redwood Dr	No
NORR SWALGREN	161 LAKE HARBOR DR	No
Bonnie Caride	133 Platinum DR	NO
Donna Molnar	200 Sailing Ct. Lex,	No
Joe Molnar	" " "	No

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Town of Lexington Municipal Complex, Conference Center
111 Maiden Lane, Lexington, SC 29072

Monday, January 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Mary Jane Phipps	1441 Old Chapin Rd. #121, Lexington	No
Sylvia Martin	1441 Old Chapin Rd. #622 Lex SC.	No
Kim Mills	406 Mill Creek Rd 29072	No
Don Mills	406 Mill Creek Rd 29072	NO
Ann Moore	110 Wood Dale Drive 29072	No
HARVEY MATHIAS	324 Governors Grant Blvd. 29072	No
Lynda Fletcher	10 Low Hill, Lex. 29072	No
Connie Brock	531 Mill Creek Rd. Lex.	NO
✓ KERRY RAINEY	436 OAK HAVEN DRIVE, LEX	YES

29072

1167

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Town of Lexington Municipal Complex, Conference Center
111 Maiden Lane, Lexington, SC 29072

Monday, January 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Bruce Headley	260 Morning Ln, Lexington	YES
✓ Johnny Cross	1037 Morning Ln 29073	YES
✓ Mary Rizer	120 Meadow Woods Dr 29073	YES
✓ REED BULL	232 FORECASTLE G, 29072	YES
Bob MARSHALL	294 GOVERNORS GRANT BLVD 29072	No
✓ Peggy Burbage	121 Tennis View Court 29073	yes
✓ Kim Corrigan	1441 Old Chapel Rd #711 29072	yes
✓ Keith Olawsky	5 Low Hill Lane 29072	yes
✓ Patrick Cobb	1 CHESTNUT WOOD CT 29072	No

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Town of Lexington Municipal Complex, Conference Center
111 Maiden Lane, Lexington, SC 29072

Monday, January 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Paige Williams	125 Hobden Ct Lexington Sc.	No
Ron Williams	337 CAROLAN DR lex	NO
Allen Lutz	129 Valley Stream Rd Leesville	NO
✓ DAVE PRICE	1444 OLD CHAPIN RD #913 LEX.	YES
✓ CARL BARTLETT	117 Point South Lane Lex 29073	YES
PATRICK LIVINGSTON	112 SILVERCREEK DR. Lex 29072	N
Kathy McGness	208 Hickory Meadow	N
Clifford O. Koon, Jr.	201 Reed Ave Lexington 29002	N
✓ Nancy Faglie	6 High Hill Rd Lex 29072	Y

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Town of Lexington Municipal Complex, Conference Center
111 Maiden Lane, Lexington, SC 29072

Monday, January 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Elizabeth Jones	9 Indian Creek Trail Lexington	NO
Melissa Sinclair	131 Wood Dale Dr Lex.	NO
✓ Bruce Sinclair	131 Wood Dale Drive	YES
MICHAEL WATERS	505 QUEENS CT	NO
✓ PERRY KEESE	117 SPRINGFIELD DR W. CAR SC	yes
SCOTT BANKS	133 Grand Home	No
Jim Craig	108 May Morning Dr. ²⁹⁰⁷³ Lex	NO
Keith Sims	118 Sylvan St Chapin	No
WILLIAM BARTON	321 DUTCHMAN SHORES CIR. CHAPIN	No

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Town of Lexington Municipal Complex, Conference Center
111 Maiden Lane, Lexington, SC 29072

Monday, January 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Tom Bates	Lexington 565 Harbor Heights Dr	?
Donna Chambley	121 Tennis View Court	No
Hazel Livingston	321 Water Crest Dr Lex	NO
Janet Hoffmann	1441 Old Chapin Rd Apt 323 Lexington	No
LAURA SUL VIAN	525 Harbour Pt Ct	NO
Lauren Garner	5 High Hill Ln. Lexington 29072	no
Brad Cunningham	503 Westbrook Way Lexington, SC 29072	No
✓ Hugh Caldwell	400 Mill Creek Rd Lexington, SC 29072	yes
Collette Pickett	1441 Old Chapin Rd, Condo 423 Lexington, SC 29072	no

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Town of Lexington Municipal Complex, Conference Center
111 Maiden Lane, Lexington, SC 29072

Monday, January 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
JAMES R. TURNER	265 Lookout Point Rd West Columbia SC 29172	No
Steve A SZALA	265 Lookout Point Rd West Columbia SC 29172	NO
Suzanne Westcott	260 Morning Ln Lexington, SC 29072	No
Timmy Walker	1025 Mervin Creek Dr Lexington, S.C. 29073	No
✓ Brenda Nesbit	145 Jicama St Pelion SC Lexington, SC 29072	yes
✓ Phil Williams	1441 Old Chapel Rd, Unit 33 Lex, S.C. 29072	YES
Hebbie Meitz	421 Rye Creek Dr. Columbia SC 29210	No
JEAN WAUGH	306 Northview Rd, West Columbia SC 29169	NO
Tucker Riddle	200 Carriage Hill Court Lex SC, 29073	No

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Town of Lexington Municipal Complex, Conference Center
111 Maiden Lane, Lexington, SC 29072

Monday, January 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Catherine Williams	337 Carola Lane	no
✓ Nicholson Ransom	133 Loskin LN Lexington	YES
LELAND SULLIVAN	525 HARBOUR PLACE CT LEX	No
LAURA SULLIVAN	41	NO
✓ Ian Davis	345 OAK HAVEN DR	YES
JAMES CAHILL	1441 GLOCHAPIAN RD UNIT 613	NO
Laura Clark	109 Broadreach Rd.	NO
Craig Clark	109 Broadreach Rd	No
Patti Sundius	101 Wood Dale Dr	No

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Town of Lexington Municipal Complex, Conference Center
111 Maiden Lane, Lexington, SC 29072

Monday, January 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Lori Hatcher	330 Broadleaf Dr. Lex. 29073	no
Paula Rael Calhoon ^{Donnie}	^{Mye} 264 Mooring Lane	No
Donnie Myers	264 Mooring Lane	No

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Town of Lexington Municipal Complex, Conference Center
111 Maiden Lane, Lexington, SC 29072

Monday, January 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Doneil Allen	124 Kingston Ct. lex 29073	yes

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Town of Lexington Municipal Complex, Conference Center
111 Maiden Lane, Lexington, SC 29072

Monday, January 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
RICK RANALL	1481 OLOCHAPIN RD ^{#852} LEX. 29072	NO
✓ Constance C. Flemming	604 Hendrix St. - Lex, S.C. ²⁹⁰⁷²	Yes
✓ Chris Gordon	227 Rollingwood Dr 29072	Yes
Shanon Stabler	117 Woodview Ct, Lex SC ²⁹⁰⁷²	NO
✓ Arthur McClair	137 Sonning Road Irmo SC 29063	YES

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Christina Brundage	103 Torrington Rd. Irmo SC	yes
~~Erica L...~~	5876 Bush River COLA, SC	no
✓ Nicole Arzu	119 Chadford Circle Irmo SC 29063	yes
Amos S. Jones	312 Maid Starn Rd 29063	~~no~~
Greta Nelson	137 Shawn Bay Rd 29063	No
Brenda McClain	137 Sonning Road	NO
✓ Arthur McClain	137 Sonning Road	YES
Andrea Grinstead	15 Wessex Blvd	No



PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Spencer Brundage	103 Torrington Rd	Yes
Adam cline	4235 Moss Ave Columbia	NO
Lisa Stinen	589 Cornerstone Circle	NO
✓ Andrew May	102 Cressfell Rd.	Yes
Christofa	324 Cocaspar Rd	NO
✓ Timothy Wilkins	246 Shoals Landing	Yes?

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Anne Lisle	225 Amber Ridge Trl	No
ADAM FISHER	120 RIVER SONG RD	YES
Tom Howell	163 Doveside Dr	NO
✓ Karen Caudell	631 N. Faye Towers	Yes
Cynthia Jones	117 Devonport Drive	NO
MARJORIE SMITH	225 Regency Dr.	No
✓ Michelle L. Carpenter	112 London Pride RD	Yes
✓ Kathleen Clark	316 Castle Vale Rd	No
✓ Melinda Weeks	113 Andover Circle	Yes

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
PRESTON T JOSHOSKE	238 GREENSTONE WAY COLUMBIA	No
Chris Thomas	131 Greenbriar drive	No
Jennifer Rawlings	319 Chapelwhite Rd.	No
Betty Daggett	118 Temple Wake Rd Irmo	No
LAURA CARSON	501 Oak Hampton Road	NO
Ed Vinson	107 Smiths Ford Rd	No
✓ Sue Cove	405 Harbison Blvd #113	Yes
Donna Wilson	124 Thames Valley Ct	No
Teresa Stone	305 West Royal Tower	NO

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
DAVID Campbell	84 MIDDLE CREEK Rd	No
Robert Richb	2038 Lake Murray	No
✓ James A. Bell	109 Point South Ct, Lex	Yes
John Stockdell	121 PURGATORY PT Chapin	No
Al Dozier	Irmo Wees	No
Simone Fisher	120 River Song Rd Irmo	No
✓ Vanessa Torres	7 Castle Vale Ct Irmo	Yes
Nancy Chapman	1427 Beaver Dam Rd	~~Yes~~ No
Teresa Heilman	501 S. Royal Tower Dr.	No

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Kami Kiema	292 Newport Pl.	no
Karen Melkang	107 Fallsburg rd	no
MICHAEL WARD	118 ASHBOURNE RD, 29063	NO
Melissa Goforth	153 Heartwood Drive, Lexington SC 29021	NO
Pam Simpson	108 Dutch Village Drive Irmo, SC 29063	NO
✓ Mrs. Kim Parker	225 Regency Drive 29212	Yes
Margie Bumgardner	512 S. Bonham Rd. 29205	NO
✓ Keith Sims	118 Sylvan St	Yes
Kay Lower	5876 Bush River Rd	NO

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Cindy Reeves	354 ENGLISH LEGEND DR, IRMO 29063	No
Kevin Ross	1009 Natchez Trail, Irmo, SC 29069	No
Thomas Bailey	313 Serpentine Rd. Irmo	No
Brenda Wheeler	333 English Legend Dr. Irmo	No
Daniel Wheeler	333 English Legend Dr. Irmo	No
Chris Rawlings	319 Chapdwite Rd, Irmo	No
Ed Mendenhall	208 Leamington Way, Irmo	No
John Southenberry	112 Periwinkle Rd Irmo SC	No
✓ FRANKIE DELL	516 Lord Howe Rd Irmo SC	Yes

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Matthew S. Muldrow	548 COMPASS ROSE WAY Irmo, SC 29063	NO
Fay Elizabeth Geddings	306 Brickling Rd Irmo, SC 29063	No
Thomas Soler	179 Dorris Dr Columbia, SC 29212	NO
Lisa Bailey	313 Serpentine Rd Irmo, SC 29063	NO
✓ Ken Parker	296 Placid Dr. Irmo, SC 29063	yes
Shirley Allen	349 S. ROYAL TOWER DR Irmo, SC	NO
Olivia Felder	543 N. Royal Tower Dr. SC	NO
✓ Ashley Foust	230 Southhampton Dr	yes
NOLA M. SOUTHERLAND	212 SERPENTINE RD	NO

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Mary Stewart	MARY STEWART	NO
Vicky Hadley	400 Leamington Way Irmo	NO
Ronnie Cromer	PO Box 378, Prosp. SC	NO
✓ Susan Lowhead	235 Greenstone Way	Yes
✓ Vince Vaccaro	148 Little Hampton Dr.	YES
✓ Jeffrey A. Caine	168 Rose Oak Dr.	No
✓ BRAD KAUFFMAN	417 RYE CREEK DR	YES
✓ Baker Fernandez	1268 Beechwood Rd	Yes
✓ Silvia Vice	728 N. Shadowbrk Dr Columbia, SC 29204	Yes

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Pamela Burton	212 Gales River	Yes
JOHN S PREEVES	354 ENGLISH LEGEND DR	NO
MARTHA GIBBONS	205 TRINITY THREE RD IRMO	NO
✓ Ken Hadley	400 LEAMINGTON WAY, IRMO	Yes
✓ Clint Scoville	213 Amber Ridge Trail Irmo	Yes
✓ Jim & Kathy Banks	145 Lake Point Dr. Chapin	Yes
Kathy Perrine	2 Wessex Blvd Irmo	NO
Amye Dixon	7 Wessex Blvd. IRMO	NO
Pat Campbell	84 Middle Creek Rd	NO

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Thomas Lawton	227 Resency Drive Columbia, SC 29212	Yes
Barb Waldman	900 Shadowleaf Ct. Columbia, SC 29212	No
Scott O'Brian	2105 Wembley Dr Columbia 29212	NO
KAY Burns	21 Wessex Blvd, Irmo 29063	NO
Barney Frazier	213 Waltham Abbey Rd Columbia, SC 29212	NO
Dolores Bonston	11 Wessex Blvd Irmo, SC 29063	No
Betty Shealy	10 Wessex Irmo, SC 29063	NO
✓ Rosamond Tanbo	4 Hickory Hall Ct Irmo SC 29063	Yes.
Tom METTS	424 LOCKSHIRE CIR COLA	NO

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Buzzy Walker	902 Shadowless Ct	Yes
Vonda Pettit	119 Casco Bay Rd Irmo, SC 29063	No
✓ Eva O'Brian	2105 Nembley Ct 29212	Yes
✓ Ellis Burgos	21 Wesser Blvd Irmo, SC	yes
Richard Hootes	29 Antique Rose Ct Irmo	No
Cindy Boehme	148 Little Hampton Dr. Irmo	No
Genoveve Taylor	2711 Superior St. 29205	NO
Adam James	3718 Redwood	No
✓ Michael Ward	118 Minehead Rd	Yes

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Polly CLARY	137 Weston Watch Rd Irmo	YES
Lawrence T. Toney	150 S. Broad St. Columbia	NO
John Coffey	241 English Legend Dr.	NO
✓ Julius D. Waites	124 Boulsters Lock Rd	YES
Carol	Carol's address	NO
Carol MacNett	104 Wells Pt Dr Irmo	NO
Lorraine Simmons	109 Chartwell Rd	NO
✓ Chris Kessler	541 Compass Rose Way	YES
✓ Katrina Parker	121 Backwood	YES

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Candice GRAHAM	127 W TOWN WAY, COLASC	NO
✓ Erik Swinger	417 cressfall Rd	YES-
PATRICK COBB	1 CHESTNUT WDS CT	NO
Rosemary Spell	217 Beechwoodhwy Bridge	NO
BRENDA GRAYS	119 Lely Ct	NO
Susan Walker	902 Shadowleaf Ct.	NO
CHARLES SHERFEY	24 PALMETTO	YES
Clarice Gibbons	113 Casco Bay Road	NO
Sherry Jukoske	242 Greenstone Way	

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Tom VACULA	103 KILLIAN PT ^{CHAPIN} CIR.	YES
✓ Bill Byrd	106 Lantspur Rd.	yes
Harrington A. Lackey	10 Leamington Crt	No
Deborah Onley	207 North Royal Tower	NO
CHARLES WHITEVER	446 DUTCHMAN SHORES CIR	NO
✓ David Stewart	101 Glossop Circle 29512	yes
Sharlene Turner	123 Shore Breeze Dr. Irmo	No
✓ Dale Numb	808 Merchants Dr	Yes
✓ Edgar Hedgecock	209 Wood Pkwy	Yes

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Darlene Staggs	301 Harbor Heights Dr. #17B	NO-
✓ HERBIE MEETZE	421 RYE CREEK Dr COLUMBIA, SC 29212	YES
MARY VALULA	103 KILIAN POINTE	NO
Nadia Coccoaro	230 Torrington Rd Irmo	NO
✓ Diana Hackey	10 LEZMINGTON Ct IRMO	yes
✓ Georgia Coffey	341 English Legend Dr. Irmo	yes
✓ PAT STEADMAN	209 EAST DEAN Rd	yes
✓ Pat WILH		yes ~~no~~
SCOTT BAKER	105 CEDAR HILL	NO

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Irmo Municipal Building, 7300 Woodrow St., Irmo, SC 29063

Thursday, January 30, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Valerie Arnold	11 Rosemoss Ct. Simpsonville SC	No
KELLY BUSCH	45 BUSCH OAKS CT Irmo SC	NO
Barbara Trueax	150 Shoals Landing Dr. Irmo	—
Rob Links	10411 Elliott Rd	NO
✓ Bill Panekson	318 Sawyer Cr	Yes
✓ Jake Moore	335 Windward Pt Rd	yes
✓ Morris L. Bays Sr	142 Rock Hampton Rd Irmo	Yes
Don Turner	123 Shore Breeze Dr	NO
Timothy Hartley	603 Wordsworth Place	NO

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Union City Hall, 101 Sharpe Avenue, Union, SC 29379

Monday, February 3, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

	NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
	Jacqueline Jeter	142 Sunset Ln. Union	No
	James Jeter	142 Sunset Ln. Union	No
	William E. West	335 River Hills Rd. Union	No
✓	Paul Winters	318 River Hills Rd Union	Yes
	Doug Shields	330 River Hills Rd	No
	Vickie Shields	" " " "	No
	Ginger Winters	318 River Hills Rd -	No
✓	Laurie Henderson	141 Pineland Ave	Yes

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Union City Hall, 101 Sharpe Avenue, Union, SC 29379

Monday, February 3, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
DANNY R. RODGERS	159 PINELAND AVE, UNION, SC.	No
✓ Michelle Canada	205 Tate Avenue, Union, SC.	Yes
✓ Graham Williams	112 Kathy Lane Union	Yes
Duane Peake	111 Pineland Avenue, Union SC	No
✓ JUSAL P. COCHRAN	101 STONEBROOK DR UNION	Yes
Michael Tyler	4086 Buffalo-West Springs Hwy	No
✓ Gene Dickey	129 Pineland Ave.	yes

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Union City Hall, 101 Sharpe Avenue, Union, SC 29379

Monday, February 3, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
JAMES L PETERS	148 PINELAND AVE,	NO
✓ Dorothy L Rodgers	159 Pineland Ave	yes
Valerie Arnold	130 S. Main St. Greenville SC	No
Doug Gilliam	3347 BWS Hwy, Buffalo SC	NO
✓ Myrtle Pruitt	164 Pineland Ave Union	yes
JT Rodgers	102 Pineland Ave	no
John Henderson	141 Pineland Ave	no

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

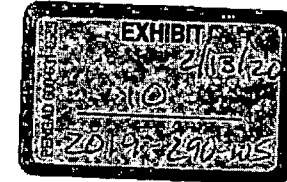
DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Greenville County Council Chambers, 301 University Ridge, Suite 2400
Greenville, SC 29601

Thursday, February 13, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET



NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Valerie Arnold	17 Rosemoss, Simpsonville SC	No
George R. Lemelka	115 Valierbrook, Pelzer	NO
Maria Love	221 Riverdell Dr. Pelzer SC	NO
Tom RAMSAY	205 Riverdell Dr Pelzer SC	NO
Gabri T Marvon	208 Riverdell Dr Pelzer	NO
Charles Gray	1240 Fourth - Day	NO
Gabriela Lawrence	30 Sandlapper Trail	NOPE
PETER Robson	305 SHADOWBERRY DR, Pelzer	<u>NO</u>

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Greenville County Council Chambers, 301 University Ridge, Suite 2400
Greenville, SC 29601

Thursday, February 13, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Wendy Trommer	307 Shadowmere Dr Pelzer	Yes
✓ Bobbie Lyon	125 Third Day Piedmont	Yes
✓ Virginia Cway	124 Fourth Day St Piedmont	Yes
✓ Andy Lawrence	30 Sandlapper Trail Piedmont	Yes
James Warren	312 Shadowmere Dr.	No

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

Greenville County Council Chambers, 301 University Ridge, Suite 2400
Greenville, SC 29601

Thursday, February 13, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Rufus EPerry	84 Prioress Pl Piedmont SC	No
James K Mayfield	109 Gaybridge Rd Pelzer SC	NO
William Jackson	310 Shadowmere Drive Pelzer SC	NO
Rosana Lawrence	30 Sandlapper Trail Piedmont	No
ELAINE ROBSON	305 SHADOWMERE DR	No

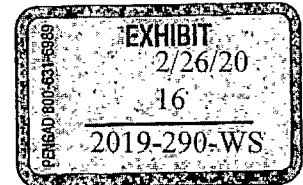
Summary

Dylan is an experienced consultant and a Certified Rate of Return Analyst (CRRA) and Certified Valuation Analyst (CVA). He has served as a consultant for investor-owned and municipal utilities and authorities for 11 years. Dylan has extensive experience in rate of return analyses, class cost of service, rate design, and valuation for regulated public utilities. He has testified as an expert witness in the subjects of rate of return, cost of service, rate design, and valuation before 18 regulatory commissions in the U.S. and an American Arbitration Association panel.

He also maintains the benchmark index against which the Hennessy Gas Utility Mutual Fund performance is measured.

Areas of Specialization

☒ Regulation and Rates	☒ Capital Market Risk	☒ Rate of Return
☒ Utilities	☒ Financial Modeling	☒ Cost of Service
☒ Mutual Fund Benchmarking	☒ Valuation	☒ Rate Design
☒ Capital Market Risk	☒ Regulatory Strategy and Rate Case Support	



Recent Expert Testimony Submission/Appearances

<i>Jurisdiction</i>	<i>Topic</i>
☒ Illinois Commerce Commission	Cost of Service, Rate Design
☒ New Jersey Board of Public Utilities	Cost of Service, Rate Design
☒ Hawaii Public Utilities Commission	Cost of Service, Rate Design
☒ South Carolina Public Service Commission	Return on Common Equity
☒ American Arbitration Association	Valuation

Recent Assignments

- ☒ Provided expert testimony on the cost of capital for ratemaking purposes before numerous state utility regulatory agencies
- ☒ Maintains the benchmark index against which the Hennessy Gas Utility Mutual Fund performance is measured
- ☒ Sponsored valuation testimony for a large municipal water company in front of an American Arbitration Association Board to justify the reasonability of their lease payments to the City
- ☒ Co-authored a valuation report on behalf of a large investor-owned utility company in response to a new state regulation which allowed the appraised value of acquired assets into rate base

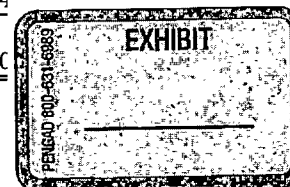
Recent Publications and Speeches

- ☒ Co-Author of: "Decoupling Impact and Public Utility Conservation Investment", co-authored with Richard A. Michelfelder, Ph.D., Rutgers University and Pauline M. Ahern. Energy Policy Journal, 130 (2019), 311-319.
- ☒ "Establishing Alternative Proxy Groups", before the Society of Utility and Regulatory Financial Analysts: 51st Financial Forum, April 4, 2019, New Orleans, LA.

1201

Blue Granite Water Company
Basis of Selection of Comparable Risk
Domestic Non-Price Regulated Companies

	[1]	[2]	[3]	[4]
	Value Line Adjusted Beta	Unadjusted Beta	Residual Standard Error of the Regression	Standard Deviation of Beta
<u>Proxy Group of Six Water Companies</u>				
American States Water Co.	0.70	0.48	2.7300	0.0984
American Water Works Company Inc	0.60	0.36	2.1647	0.0780
Artesian Resources Corporation	0.65	0.41	3.4190	0.1232
California Water Service Group	0.70	0.49	2.9531	0.1064
Middlesex Water Co.	0.75	0.56	3.2871	0.1185
York Water Co.	0.75	0.58	3.4	
Average	0.69	0.48	3.0	
Beta Range (+/- 2 std. Devs. of Beta)	0.26	0.70		
2 std. Devs. of Beta	0.22			
Residual Std. Err. Range (+/- 2 std. Devs. of the Residual Std. Err.)	2.7407	3.2687		
Std. dev. of the Res. Std. Err.	0.1320			
2 std. devs. of the Res. Std. Err.	0.2640			



Source of Information: Valueline Proprietary Database, June 2019

Blue Granite Water Company
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Six Water Companies

	[1]	[2]	[3]	[4]
Proxy Group of Fourteen Non-Price Regulated Companies	VL Adjusted Beta	Unadjusted Beta	Residual Standard Error of the Regression	Standard Deviation of Beta
AutoZone Inc.	0.75	0.62	2.8572	0.1030
Cheesecake Factory	0.70	0.54	2.8398	0.1023
Casey's Gen'l Stores	0.75	0.57	3.0277	0.1091
Choe Global Markets	0.70	0.52	2.7792	0.1001
Cracker Barrel	0.70	0.53	3.0130	0.1086
Campbell Soup	0.65	0.46	2.84	
Dollar General	0.80	0.66	3.02	
Dunkin' Brands Group	0.65	0.46	2.82	
Darden Restaurants	0.80	0.64	2.96	
Integra LifeSciences	0.80	0.66	3.17	
Jack in the Box	0.80	0.67	3.22	
Philip Morris Int'l	0.85	0.70	2.74	
Texas Roadhouse	0.85	0.70	3.0559	0.1101
Viad Corp.	0.80	0.68	3.0745	0.1108
Average	0.76	0.60	2.9600	0.1100
Proxy Group of Six Water Companies	0.69	0.48	3.0047	0.1083



Source of Information:

Valueline Proprietary Database, June 2019

Summary

Dylan is an experienced consultant and a Certified Rate of Return Analyst (CRRA) and Certified Valuation Analyst (CVA). He has served as a consultant for investor-owned and municipal utilities and authorities for 11 years. Dylan has extensive experience in rate of return analyses, class cost of service, rate design, and valuation for regulated public utilities. He has testified as an expert witness in the subjects of rate of return, cost of service, rate design, and valuation before 18 regulatory commissions in the U.S. and an American Arbitration Association panel.

He also maintains the benchmark index against which the Hennessy Gas Utility Mutual Fund performance is measured.

Areas of Specialization

■ Regulation and Rates	■ Capital Market Risk	■ Rate of Return
■ Utilities	■ Financial Modeling	■ Cost of Service
■ Mutual Fund Benchmarking	■ Valuation	■ Rate Design
■ Capital Market Risk	■ Regulatory Strategy and Rate Case Support	

Recent Expert Testimony Submission/Appearances

<i>Jurisdiction</i>	<i>Topic</i>
■ Illinois Commerce Commission	Cost of Service, Rate Design
■ New Jersey Board of Public Utilities	Cost of Service, Rate Design
■ Hawaii Public Utilities Commission	Cost of Service, Rate Design
■ South Carolina Public Service Commission	Return on Common Equity
■ American Arbitration Association	Valuation

Recent Assignments

- Provided expert testimony on the cost of capital for ratemaking purposes before numerous state utility regulatory agencies
- Maintains the benchmark index against which the Hennessy Gas Utility Mutual Fund performance is measured
- Sponsored valuation testimony for a large municipal water company in front of an American Arbitration Association Board to justify the reasonability of their lease payments to the City
- Co-authored a valuation report on behalf of a large investor-owned utility company in response to a new state regulation which allowed the appraised value of acquired assets into rate base

Recent Publications and Speeches

- Co-Author of: "Decoupling Impact and Public Utility Conservation Investment", co-authored with Richard A. Michelfelder, Ph.D., Rutgers University and Pauline M. Ahern. Energy Policy Journal, 130 (2019), 311-319.
- "Establishing Alternative Proxy Groups", before the Society of Utility and Regulatory Financial Analysts: 51st Financial Forum, April 4, 2019, New Orleans, LA.

Blue Granite Water Company
Basis of Selection of the Group of Non-Price Regulated Companies
Comparable in Total Risk to the Utility Proxy Group

The criteria for selection of the Non-Price Regulated Proxy Group was that the non-price regulated companies be domestic and reported in Value Line Investment Survey (Standard Edition).

The Non-Price Regulated Proxy Group was then selected based on the unadjusted beta range of 0.26 – 0.70 and residual standard error of the regression range of 2.7407 – 3.2687 of the Utility Proxy Group.

These ranges are based upon plus or minus two standard deviations of the unadjusted beta and standard error of the regression. Plus or minus two standard deviations captures 95.50% of the distribution of unadjusted betas and residual standard errors of the regression.

The standard deviation of the Utility Proxy Group's residual standard error of the regression is 0.1320. The standard deviation of the standard error of the regression is calculated as follows:

$$\text{Standard Deviation of the Std. Err. of the Regr.} = \frac{\text{Standard Error of the Regression}}{\sqrt{2N}}$$

where: N = number of observations. Since Value Line betas are derived from weekly price change observations over a period of five years, N = 259

$$\text{Thus, } 0.1320 = \frac{3.0047}{\sqrt{518}} = \frac{3.0047}{22.7596}$$

Source of Information: Value Line, Inc., June 2019
Value Line Investment Survey (Standard Edition)

Blue Granite Water Company
Basis of Selection of Comparable Risk
Domestic Non-Price Regulated Companies

	[1]	[2]	[3]	[4]
	Value Line Adjusted Beta	Unadjusted Beta	Residual Standard Error of the Regression	Standard Deviation of Beta
<u>Proxy Group of Six Water Companies</u>				
American States Water Co.	0.70	0.48	2.7300	0.0984
American Water Works Company Inc	0.60	0.36	2.1647	0.0780
Artesian Resources Corporation	0.65	0.41	3.4190	0.1232
California Water Service Group	0.70	0.49	2.9531	0.1064
Middlesex Water Co.	0.75	0.56	3.2871	0.1185
York Water Co.	0.75	0.58	3.4742	0.1252
Average	0.69	0.48	3.0047	0.1083
Beta Range (+/- 2 std. Devs. of Beta)	0.26	0.70		
2 std. Devs. of Beta	0.22			
Residual Std. Err. Range (+/- 2 std. Devs. of the Residual Std. Err.)	2.7407	3.2687		
Std. dev. of the Res. Std. Err.	0.1320			
2 std. devs. of the Res. Std. Err.	0.2640			

Source of Information: Valueline Proprietary Database, June 2019

Blue Granite Water Company
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Six Water Companies

	[1]	[2]	[3]	[4]
Proxy Group of Fourteen Non-Price Regulated Companies	VL Adjusted Beta	Unadjusted Beta	Residual Standard Error of the Regression	Standard Deviation of Beta
AutoZone Inc.	0.75	0.62	2.8572	0.1030
Cheesecake Factory	0.70	0.54	2.8398	0.1023
Casey's Gen'l Stores	0.75	0.57	3.0277	0.1091
Cboe Global Markets	0.70	0.52	2.7792	0.1001
Cracker Barrel	0.70	0.53	3.0130	0.1086
Campbell Soup	0.65	0.46	2.8442	0.1025
Dollar General	0.80	0.66	3.0238	0.1090
Dunkin' Brands Group	0.65	0.46	2.8236	0.1018
Darden Restaurants	0.80	0.64	2.9600	0.1067
Integra LifeSciences	0.80	0.66	3.1779	0.1145
Jack in the Box	0.80	0.67	3.2293	0.1164
Philip Morris Int'l	0.85	0.70	2.7477	0.0990
Texas Roadhouse	0.85	0.70	3.0559	0.1101
Viad Corp.	0.80	0.68	3.0745	0.1108
Average	0.76	0.60	2.9600	0.1100
Proxy Group of Six Water Companies	0.69	0.48	3.0047	0.1083

Source of Information:

Valueline Proprietary Database, June 2019

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

SCPSC Hearing Room, 101 Executive Center Drive, Columbia, SC 29210

Thursday, February 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Linda Fillmore	1441 Old Chapin Rd #632, Lex SC	Yes
✓ John P. Corrigan	1441 Old " #711, " "	yes
✓ Teresa Heilman	501 S. Royal Tower Dr. Irmo, SC 29063	yes
Kaye Mallard	110 Laurel Meadows Dr. 29169	no



PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

SCPSC Hearing Room, 101 Executive Center Drive, Columbia, SC 29210

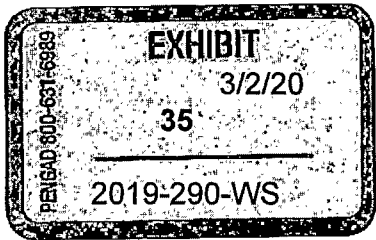
Thursday, February 27, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Kim Corrigan	1441 Old Chapin Rd Lexington SC 29072	YES
✓ Robyn Garrison	41 Garden Springs Rd Columbia SC 29209	~~YES~~ NO
Frank Stacey	11	No
✓ JOHN DURON MALLARD	110 LAUREL MEADOWS Drive West Columbia, SC 29169	YES
William H. Edwards	319.5 Chimney Lane Col 29209	No

Blue Granite Water Company
Deferred Charges
Docket No. 2019-290-WS
Test Year Ended June 30, 2019

Description	Rate Base?	Balance through 6/30/19	Activity thru 4/30/20	Pro-Forma Balance at 4/30/20	Prior Approved Amortization Years	Amortization Years Remaining	Annual Amortization	Rate Base Items
								Balance for Rate Base after 1 Year Amortization
ALC Case - DHEC Permit Denial	No	\$ 213,773	3,000	\$ 216,773		5.00	\$ 43,355	
ALC Case - I-20 Interconnect	No	\$ 65,948	-	65,948		5.00	\$ 13,190	
I-20 Interconnect Phase 2	No	\$ 156,819	(1,995)	154,824	66.67	64.97	\$ 2,394	
2016 Storm Costs	No	\$ 20,196	(10,114)	10,081	5.00	0.83	\$ 10,081	
Hurricane Florence Storm Costs	No	\$ 187,842	(34,786)	153,057	5.00	3.67	\$ 41,743	
Stonegate WTP Decommissioning and NBV	Yes	\$ 703,426	38,645	742,071		29.56	\$ 25,103	716,968
Friarsgate WWTP Decommissioning and NBV	Yes	\$ 5,896,721	1,109,769	7,006,490		32.40	\$ 216,264	6,790,226
Federal Protected EDIT	Yes	\$ (2,769,302)	44,326	(2,724,976)	56.00	54.06	\$ (50,402)	(2,674,574)
Federal Unprotected EDIT	Yes	\$ (153,304)	69,778	(83,526)	3.00	1.06	\$ (78,661)	(4,865)
Total Deferred Charges		\$ 4,322,119	\$ 1,218,622	\$ 5,540,741			\$ 223,066	\$ 4,827,755
Total Deferred Charges for Rate Base								\$ 4,827,755



GREENVILLE, SC

PROFILE: GEOSKILL - BACK OFFICE

20.0 Mile Radius



Prepared for: Utilities, Inc

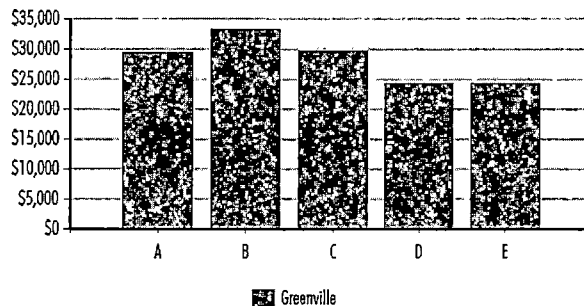
Prepared by: Chad Barbiasz



➤ DEMOGRAPHICS

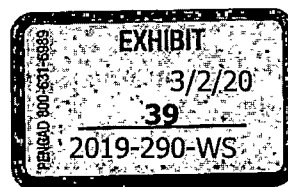
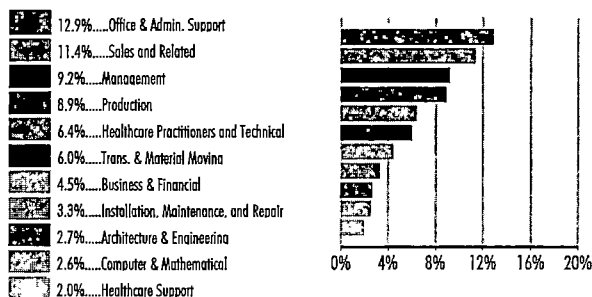
Key Metrics	Market	National
Population (vs. nat'l metro avg)	711,969	735,789
Labor Force (vs. nat'l metro avg)	355,749	372,838
Proj. Pop Growth	7.0%	4.2%
Unemployment (Monthly)	4.3%	4.4%
Median Household Income - USD	\$51,993	\$56,124
Proj. Income Growth	12.2%	10.6%
Cost of Living	93.6%	100.0%
% Population 21-34 (Millennials)	18.1%	19.3%
Median Home Value	\$161,209	\$207,344

➤ MEDIAN WAGES BY MARKET (USD)



Job Title - Year of Experience	Market	National
A Accounts Payable and Receivable Clerk - 1 Year	\$29,363	\$32,233
B Administrative Assistant - 1 Year	\$33,291	\$36,319
C Bookkeeping Clerk - 1 Year	\$29,645	\$32,512
D Data Entry Operator - 1 Year	\$24,311	\$27,190
E File Clerk - 1 Year	\$24,325	\$27,027

➤ EMPLOYMENT BY OCCUPATION

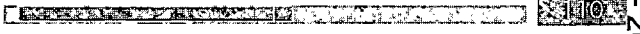


➤ MARKET INDEXES

Labor Supply



Availability and Quality



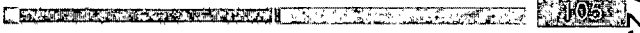
Skill Set Employment per 10,000 Workers



Labor Cost



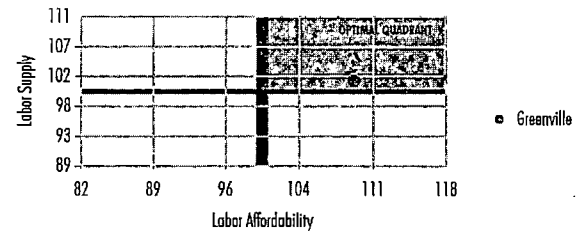
Macro Labor Costs



Cost Skill Sets



➤ OPTIMAL BALANCE

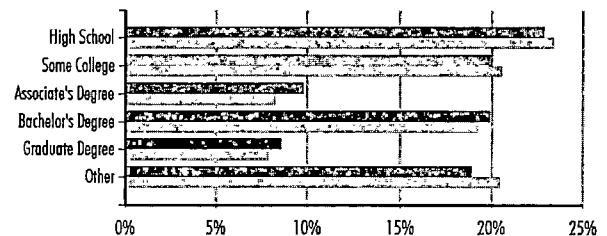


➤ POST SECONDARY SCHOOLS

Post-Secondary Schools	Type	Enrollment
Clemson Univ.	4-Year Public University	21,857
Greenville Technical Col.	2-Year Community College	12,592
Tri-County Technical Col.	2-Year Community College	6,386
Anderson Univ.	4-Year Private University	3,112
Bob Jones Univ.	4-Year Private University	3,108

2-Yr Colleges:	7	2-Yr Enrollment:	19,811	Total # of Colleges:	17
4-Yr Colleges:	10	4-Yr Enrollment:	39,825	Total Enrollment:	59,636

➤ EDUCATIONAL ATTAINMENT



* National Average denoted in Gray

METHODOLOGY

Know your Score

GeoSkill makes it easy to score a market based on several dozen variables benchmarked against the national average. This enables quick assessment of labor market strengths and weaknesses.

Profile ***

A profile is the combination of data points and their assigned weighting scheme that represents a given set of criteria for one or multiple skill sets. This profile is based on a basic set of criteria that can be further customized upon request.

Market Index ***

Index scores are calculated so that they are relative to the national average. With national indices having a value of 100, all scores above 100 indicate a positive attribute, while scores below 100 indicate a negative attribute. **Cost scores are inverted so that a score above 100 indicates a lower cost market than the national average.**

- A **supply** score of 105 indicates the value is 5% **greater than the national average**
- A **cost** score of 105 indicates the value is 5% **less than the national average**

Sources ***

Demographics: ESRI (annual); Wages & Cost of Living: Economic Research Institute (bi-annual); Education Institutions: IPEDS (annual); Occupation Data: Bureau of Labor Statistics (annual); Quality of Life: EASI Analytics (annual); Market Activity and Competition: CBRE Labor Analytics Proprietary Research (ongoing)

COMPETITIVE INTELLIGENCE, CUSTOMIZATION & LOCATION STRATEGY

Did you know talent considerations drive more than 83% of location strategy decisions? Workforce demand is at all time highs and identifying the right location for a sustainable competitive advantage is paramount. Labor statistics only show a part of the talent and location strategy picture. Successful location decisions also include:

- ✓ Workforce longevity & scalability
- ✓ Customized skill set profiling
- ✓ Primary labor market research
- ✓ Competitive research
- ✓ Talent mapping

Index Value and Color Key ***

COLOR	INDEX SCORE	INDICATION
NATIONAL AVERAGE: 100		
DARK GREEN	115+	Highly positive and desirable attribute: Scores very well in comparison to the national average. Supply is well above national average; Cost is well below national average.
	↑ SUPPLY ↓ COST	
LIGHT GREEN	105-114	Positive and desirable attribute: Scores well in comparison to the national average. Supply is above national average; Cost is below national average.
	↑ SUPPLY ↓ COST	
YELLOW	95-104	Neutral attribute: Scores close to the national average. Supply and Cost are close to the national average.
	→ SUPPLY → COST	
ORANGE	85-94	Negative attribute: Scores below the national average. Supply is below the national average; Cost is above the national average.
	↓ SUPPLY ↑ COST	
RED	84 AND BELOW	Highly negative attribute: Scores well below the national average. Supply is well below the national average; Cost is well above the national average.
	↓ SUPPLY ↑ COST	

CBRE's Labor Analytics has delivered labor and location strategies for its clients for over 20 years. For a deeper or more customized analysis or site selection strategy, call us. We can help.

HOW DOES THIS MARKET FIT MY SPECIFIC NEEDS?	HOW SUSTAINABLE OR SCALABLE IS THIS MARKET?	WHAT ARE THE BEST LOCATIONS FOR OUR BUSINESS?	HOW DO I CREATE A ROADMAP FOR MY PORTFOLIO?
For information on this report or for additional needs, please contact CBRE Labor Analytics:	Mark Seeley Senior Vice President +1 602 735 5230 mark.seeley@cbre.com	Kristin Sexton Senior Managing Director +1 602 735 5247 kristin.sexton@cbre.com	Laura Sidney Senior Director, Client Strategy +1 602 735 5564 laura.sidney@cbre.com

COLUMBIA, SC

PROFILE: GEOSKILL - BACK OFFICE

20.0 Mile Radius



TOTAL INDEX

Prepared for: Utilities, Inc

Prepared by: Chad Barbiasz

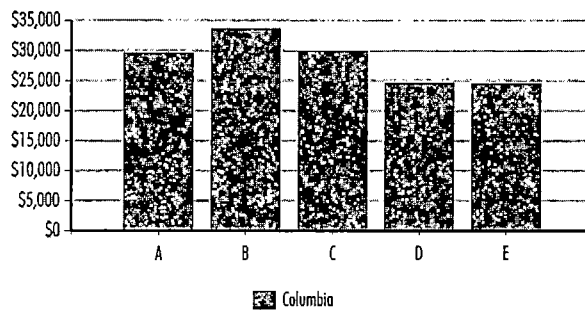


Powered By CBRE Labor Analytics

➤ DEMOGRAPHICS

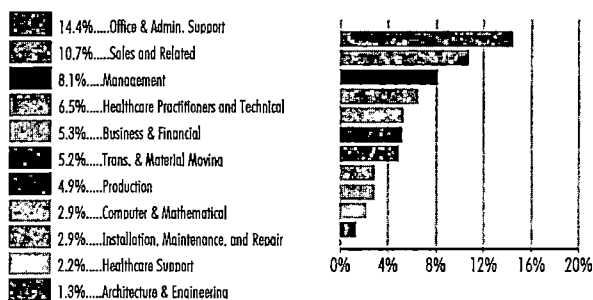
Key Metrics	Market	National
Population (vs. nat'l metro avg)	519,482	735,789
Labor Force (vs. nat'l metro avg)	263,781	372,838
Proj. Pop Growth	5.1%	4.2%
Unemployment (Monthly)	4.0%	4.4%
Median Household Income - USD	\$50,213	\$56,124
Proj. Income Growth	11.1%	10.6%
Cost of Living	95.1%	100.0%
% Population 21-34 (Millennials)	22.8%	19.3%
Median Home Value	\$152,831	\$207,344

➤ MEDIAN WAGES BY MARKET (USD)



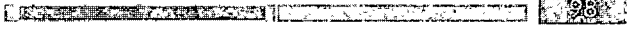
Job Title - Year of Experience	Market	National
A - Accounts Payable and Receivable Clerk - 1 Year	\$29,556	\$32,233
B - Administrative Assistant - 1 Year	\$33,545	\$36,319
C - Bookkeeping Clerk - 1 Year	\$29,839	\$32,512
D - Data Entry Operator - 1 Year	\$24,617	\$27,190
E - File Clerk - 1 Year	\$24,528	\$27,027

➤ EMPLOYMENT BY OCCUPATION

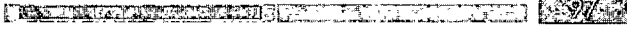


➤ MARKET INDEXES

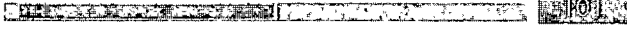
Labor Supply



Availability and Quality



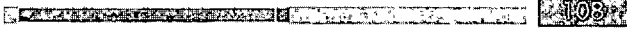
Skill Set Employment per 10,000 Workers



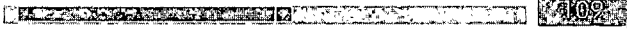
Labor Cost



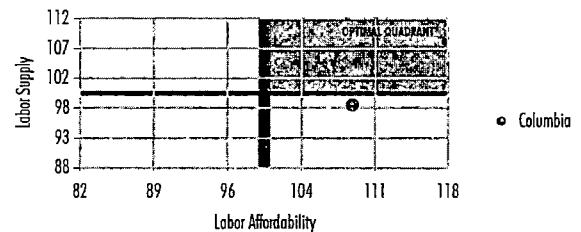
Macro Labor Costs



Cost Skill Sets



➤ OPTIMAL BALANCE

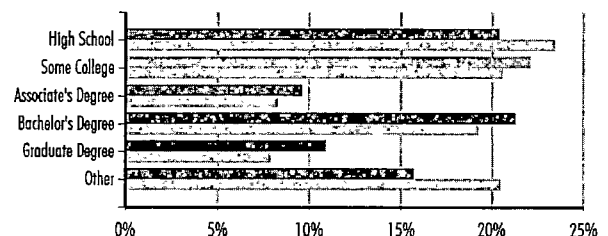


➤ POST SECONDARY SCHOOLS

Post Secondary Schools	Type	Enrollment
Univ. of South Carolina-Colum...	4-Year Public University	32,971
Midlands Technical Col.	2-Year Community College	11,424
Benedict Col.	4-Year Private University	2,444
South Univ.-Columbia	4-Year Private University	1,464
Columbia Col.	4-Year Private University	1,221

2-Yr Colleges:	11	2-Yr Enrollment:	13,007	Total # of Colleges:	22
4-Yr Colleges:	11	4-Yr Enrollment:	41,428	Total Enrollment:	54,435

➤ EDUCATIONAL ATTAINMENT



* National Average denoted in Gray

Disclaimer: © 2018 CBRE, Inc. All rights reserved. This report contains information from sources including, but not limited to: Demographics (S) Source: ESRI 2017 and Easy Analytic Software 2017, Easy Analytic Software Quality of Life Data 2015, Economic Research Institute Q2 2017 of Labor Statistics Q2 2016 National Center for Education Statistics Integrated Post Secondary Education Data Systems (IPEDS). We believe these sources to be reliable; however, we make no guarantee, warranty or representation of its accuracy. Opinions, assumptions and estimates constitute CBRE's judgment as of the date this report is first released and are subject to change without notice. This report is published for the use of CBRE and its clients only. Redistribution in whole or part to any third party without the prior written consent of CBRE is strictly prohibited.

CBRE Build on Advantage

METHODOLOGY

Know your Score

GeoSkill makes it easy to score a market based on several dozen variables benchmarked against the national average. This enables quick assessment of labor market strengths and weaknesses.

Profile ***

A profile is the combination of data points and their assigned weighting scheme that represents a given set of criteria for one or multiple skill sets. This profile is based on a basic set of criteria that can be further customized upon request.

Market Index ***

Index scores are calculated so that they are relative to the national average. With national indices having a value of 100, all scores above 100 indicate a positive attribute, while scores below 100 indicate a negative attribute. **Cost scores are inverted so that a score above 100 indicates a lower cost market than the national average.**

- A **supply** score of 105 indicates the value is 5% **greater than the national average**
- A **cost** score of 105 indicates the value is 5% **less than the national average**

Sources ***

Demographics: ESRI (annual); Wages & Cost of Living: Economic Research Institute (bi-annual); Education Institutions: IPEDS (annual); Occupation Data: Bureau of Labor Statistics (annual); Quality of Life: EASI Analytics (annual); Market Activity and Competition: CBRE Labor Analytics Proprietary Research (ongoing)

COMPETITIVE INTELLIGENCE, CUSTOMIZATION & LOCATION STRATEGY

Did you know talent considerations drive more than 83% of location strategy decisions? Workforce demand is at all time highs and identifying the right location for a sustainable competitive advantage is paramount. Labor statistics only show a part of the talent and location strategy picture. Successful location decisions also include:

- ✓ Workforce longevity & scalability
- ✓ Customized skill set profiling
- ✓ Primary labor market research
- ✓ Competitive research
- ✓ Talent mapping

Index Value and Color Key ***

COLOR	INDEX SCORE	INDICATION
NATIONAL AVERAGE: 100		
 DARK GREEN	115+	Highly positive and desirable attribute: Scores very well in comparison to the national average. Supply is well above national average; Cost is well below national average.
	↑ SUPPLY ↓ COST	
 LIGHT GREEN	105-114	Positive and desirable attribute: Scores well in comparison to the national average. Supply is above national average; Cost is below national average.
	↑ SUPPLY ↓ COST	
 YELLOW	95-104	Neutral attribute: Scores close to the national average. Supply and Cost are close to the national average.
	→ SUPPLY → COST	
 ORANGE	85-94	Negative attribute: Scores below the national average. Supply is below the national average; Cost is above the national average.
	↓ SUPPLY ↑ COST	
 RED	84 AND BELOW	Highly negative attribute: Scores well below the national average. Supply is well below the national average; Cost is well above the national average.
	↓ SUPPLY ↑ COST	

CBRE's Labor Analytics has delivered labor and location strategies for its clients for over 20 years. For a deeper or more customized analysis or site selection strategy, call us. We can help.

HOW DOES THIS MARKET FIT MY SPECIFIC NEEDS?	HOW SUSTAINABLE OR SCALABLE IS THIS MARKET?	WHAT ARE THE BEST LOCATIONS FOR OUR BUSINESS?	HOW DO I CREATE A ROADMAP FOR MY PORTFOLIO?
For information on this report or for additional needs, please contact CBRE Labor Analytics:	Mark Seeley Senior Vice President +1 602 735 5230 mark.seeley@cbre.com	Kristin Sexton Senior Managing Director +1 602 735 5247 kristin.sexton@cbre.com	Laura Sidney Senior Director, Client Strategy +1 602 735 5564 laura.sidney@cbre.com

Disclaimer: © 2018 CBRE, Inc. All rights reserved. This report contains information from sources including, but not limited to: Demographics (4) Sources: ESRI 2017 and Easy Analytic Software 2017, Easy Analytic Software Quality of Life Data 2015, Economic Research Institute 02 2017 of Labor Statistics 20 2016 National Center for Education Statistics: Integrated Post Secondary Education Data Systems (IPEDS). We believe these sources to be reliable, however, we make no guarantee, warranty or representation of its accuracy. Opinions, assumptions and estimates constitute CBRE's judgment as of the date this report is first released and are subject to change without notice. This report is published for the use of CBRE and its clients only. Redistribution in whole or part to any third party without the prior written consent of CBRE is strictly prohibited.

CBRE Build on Advantage

WEST COLUMBIA, SC

PROFILE: GEOSKILL - BACK OFFICE
10.0 Mile Radius



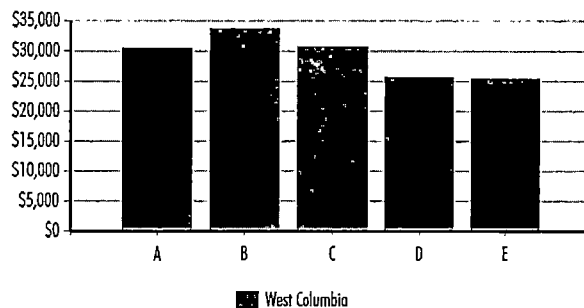
Prepared for: Utilities, Inc
Prepared by: Chad Barbiasz



DEMOGRAPHICS

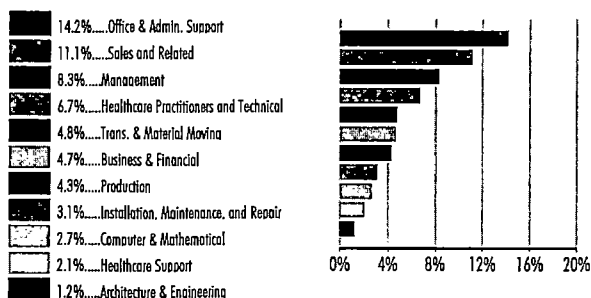
Key Metrics	Market	National
Population (vs. nat'l metro avg)	384,146	735,789
Labor Force (vs. nat'l metro avg)	196,189	372,838
Proj. Pop Growth	5.1%	4.2%
Unemployment (Monthly)	3.4%	3.9%
Median Household Income - USD	\$46,820	\$56,124
Proj. Income Growth	13.2%	10.6%
Cost of Living	97.7%	100.0%
% Population 21-34 (Millennials)	24.3%	19.3%
Median Home Value	\$146,649	\$207,344

MEDIAN WAGES BY MARKET (USD)



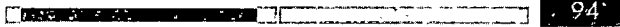
Job Title - Year of Experience	Market	National
A Accounts Payable and Receivable Clerk - 1 Year	\$30,420	\$33,250
B Administrative Assistant - 1 Year	\$33,700	\$36,721
C Bookkeeping Clerk - 1 Year	\$30,706	\$33,537
D Data Entry Operator - 1 Year	\$25,677	\$28,446
E File Clerk - 1 Year	\$25,393	\$27,970

EMPLOYMENT BY OCCUPATION

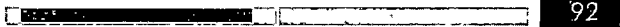


MARKET INDEXES

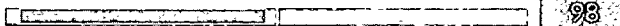
Labor Supply



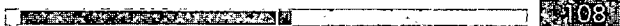
Availability and Quality



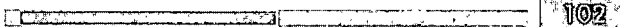
Skill Set Employment per 10,000 Workers



Labor Cost



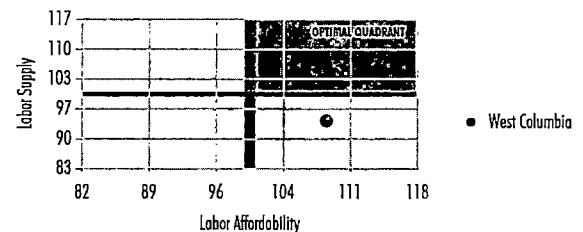
Macro Labor Costs



Cost Skill Sets



OPTIMAL BALANCE

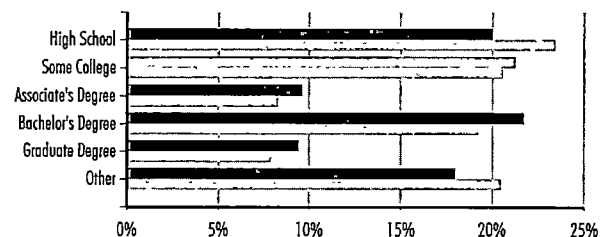


POST SECONDARY SCHOOLS

Post Secondary Schools	Type	Enrollment
Univ. of South Carolina-Colum...	4-Year Public University	32,971
Midlands Technical Col.	2-Year Community College	11,424
Benedict Col.	4-Year Private University	2,444
South Univ.-Columbia	4-Year Private University	1,464
Columbia Col.	4-Year Private University	1,221

2-Yr Colleges:	11	2-Yr Enrollment:	13,007	Total # of Colleges:	22
4-Yr Colleges:	11	4-Yr Enrollment:	41,428	Total Enrollment:	54,435

EDUCATIONAL ATTAINMENT



* National Average denoted in Gray

METHODOLOGY

Know your Score

GeoSkill makes it easy to score a market based on several dozen variables benchmarked against the national average. This enables quick assessment of labor market strengths and weaknesses.

Profile ***

A profile is the combination of data points and their assigned weighting scheme that represents a given set of criteria for one or multiple skill sets. This profile is based on a basic set of criteria that can be further customized upon request.

Market Index ***

Index scores are calculated so that they are relative to the national average. With national indices having a value of 100, all scores above 100 indicate a positive attribute, while scores below 100 indicate a negative attribute. **Cost scores are inverted so that a score above 100 indicates a lower cost market than the national average.**

- A **supply** score of 105 indicates the value is 5% **greater than the national average**
- A **cost** score of 105 indicates the value is 5% **less than the national average**

Sources ***

Demographics: ESRI (annual); Wages & Cost of Living: Economic Research Institute (bi-annual); Education Institutions: IPEDS (annual); Occupation Data: Bureau of Labor Statistics (annual); Quality of Life: EASI Analytics (annual); Market Activity and Competition: CBRE Labor Analytics Proprietary Research (ongoing)

COMPETITIVE INTELLIGENCE, CUSTOMIZATION & LOCATION STRATEGY

Did you know talent considerations drive more than 83% of location strategy decisions? Workforce demand is at all time highs and identifying the right location for a sustainable competitive advantage is paramount. Labor statistics only show a part of the talent and location strategy picture. Successful location decisions also include:

- ✓ Workforce longevity & scalability
- ✓ Customized skill set profiling
- ✓ Primary labor market research
- ✓ Competitive research
- ✓ Talent mapping

Index Value and Color Key ***

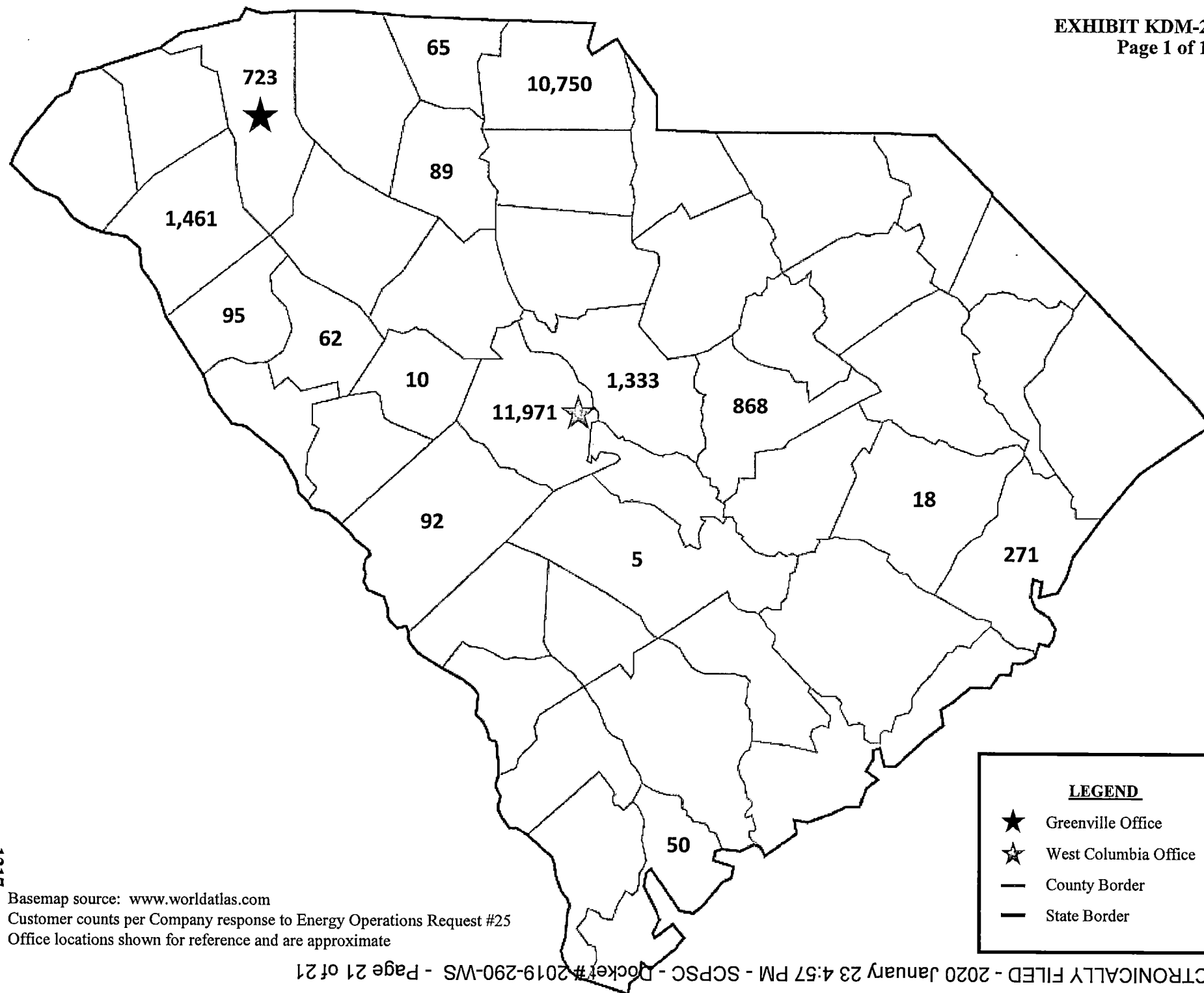
COLOR	INDEX SCORE	INDICATION
NATIONAL AVERAGE: 100		
 DARK GREEN	115+	Highly positive and desirable attribute: Scores very well in comparison to the national average. Supply is well above national average; Cost is well below national average.
	↑ SUPPLY ↓ COST	
 LIGHT GREEN	105-114	Positive and desirable attribute: Scores well in comparison to the national average. Supply is above national average; Cost is below national average.
	↑ SUPPLY ↓ COST	
 YELLOW	95-104	Neutral attribute: Scores close to the national average. Supply and Cost are close to the national average.
	⇒ SUPPLY ⇒ COST	
 ORANGE	85-94	Negative attribute: Scores below the national average. Supply is below the national average; Cost is above the national average.
	↓ SUPPLY ↑ COST	
 RED	84 AND BELOW	Highly negative attribute: Scores well below the national average. Supply is well below the national average; Cost is well above the national average.
	↓ SUPPLY ↑ COST	

CBRE's Labor Analytics has delivered labor and location strategies for its clients for over 20 years. For a deeper or more customized analysis or site selection strategy, call us. We can help.

HOW DOES THIS MARKET FIT MY SPECIFIC NEEDS?	HOW SUSTAINABLE OR SCALABLE IS THIS MARKET?	WHAT ARE THE BEST LOCATIONS FOR OUR BUSINESS?	HOW DO I CREATE A ROADMAP FOR MY PORTFOLIO?
For information on this report or for additional needs, please contact CBRE Labor Analytics:	Mark Seeley Senior Vice President +1 602 735 5230 mark.seeley@cbre.com	Kristin Sexton Senior Managing Director +1 602 735 5247 kristin.sexton@cbre.com	Brian Allen Manager, Client Strategy +1 602 735 1911 brian.allen@cbre.com

Disclaimer: © 2018 CBRE, Inc. All rights reserved. This report contains information from sources including, but not limited to: Demographics (4) Sources: ESRI 2017 and Esri Analytics Software 2017, Esri Analytics Software Quality of Life Data 2015, Economic Research Institute Q2 2017 of Labor Statistics 2017 National Center for Education Statistics Integrated Post Secondary Education Data Systems (IPEDS). We believe these sources to be reliable; however, we make no guarantee, warranty or representation of its accuracy. Opinions, assumptions and estimates constitute CBRE's judgment as of the date this report is first released and are subject to change without notice. This report is published for the use of CBRE and its clients only. Redistribution in whole or part to any third party without the prior written consent of CBRE is strictly prohibited.

CBRE Build on Advantage

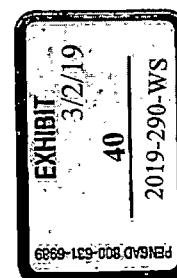


LEGEND

- ★ Greenville Office
- ☆ West Columbia Office
- County Border
- State Border

Basemap source: www.worldatlas.com
Customer counts per Company response to Energy Operations Request #25
Office locations shown for reference and are approximate

Documented Flushing and Leak Events for Twelve (12) Months Ending November 30, 2019		
Subdivision	Flushing (gal)	Leaks (gal)
Barney Rhett	1,500	-
Bellmead	4,200	-
Bridgewater	1,800	-
Calhoun Acres	-	1,000
Charleswood	13,000	-
Clearview	-	1,000
Country Oaks	15,975	16,000
Dobbins Estates	5,000	-
Dutch Village/Dutch Creek/Raintree Acres	-	-
Dutchman Shores	10,500	1,000
Edgebrook	-	-
Farrowood	5,000	3,000
Forty Love/Indian Fork	-	-
Foxwood	53,000	43,000
Greenforest	-	1,400
Harborside/Windward Point-Harbour Place	3,000	-
Hickory Hills	2,400	-
Hidden Lake	1,000	25,000
Hidden Lakes	12,000	-
Hill and Dale	-	337,330
Hunter's Glen	-	-
I-20	5,550	27,000
Idlewood	1,000	-
Indian Cove	560	-
Indian Pines	-	-
Lakewood	200	100,000
Leon Bolt/Nevitt Forest/Normandy Park	15,400	7,200
Oakwood Estates	-	-
Parkwood	-	-
Peachtree Acres	-	-
Purdy Shores Summer Homes	12,000	-
River Hills	729,900	106,500
Rollingwood	2,000	-
Stonegate (North Pines)	4,000	3,000
Surfside Heights	-	-
The Landings	10,000	-
Towncreek Acres	12,400	29,100
Washington Heights	3,000	-
Watergate/Spence Point/Mallard Shores	-	-
Westside Terrace	2,000	-
TOTAL	926,385	701,530





December 5, 2018

Dear Valued Customer,

Every day, we work to improve the lives of our customers in the Palmetto State. We have a mission of providing safe, reliable, and cost-effective water and wastewater services to the communities we serve while promoting environmental stewardship. It's a mission built on a nearly 50-year legacy of service. Today, our commitment to our customers in South Carolina is stronger than ever.

It's an exciting time at our company, and as we look forward, we are refreshing our brand at no cost to our customers to reflect our legacy and to showcase our new direction. We are changing our name to highlight our commitment to serving the communities of South Carolina and to further distinguish our company from Carolina Water Service of North Carolina, which is a separate business entity. We are currently seeking formal approval of our corporate name change with the appropriate regulatory bodies. In the meantime, we invite you to meet our company's new name and look.



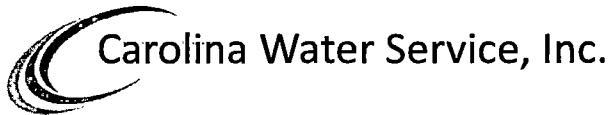
blue granite
water companySM

Local service supporting vibrant communities.

The name, Blue Granite Water Company, will be effective after all necessary approvals have been obtained. The name was selected by our employees to represent our South Carolina roots and our commitment to the state. In 2019, the Blue Granite stone will celebrate its 50th year as the South Carolina state stone. Used in the construction of the South Carolina Statehouse, blue granite represents strength and reliability, symbolizing the foundation of our commitment to provide local water and wastewater services that help build vibrant communities.

A fresh color scheme, bold logo and mission centric tagline are elements that make up the new Blue Granite Water Company brand identity. Inside the state outline, water flowing across the state symbolizes a clean and renewable natural resource connecting all communities across the state. Our new tag line centers the brand on our mission because at the end of the day, Blue Granite Water Company is about serving South Carolina's local communities.

A brand is more than a name and logo – it's who we are. It's a company culture that is guided by new core values of Prioritizing Safety, Embracing Service, Inspiring Innovation, Promoting Teamwork and Pursuing Excellence. Our new brand is a tangible symbol of the



positive changes we are making so that we may better serve you. Simply put, we are transforming – new leadership, new name, new look, new headquarters in Greenville, new culture, and a new strategic plan.

Effective January 15, 2019, our domain name and email addresses will change to @bluegranitewaterco.com and our new website will be www.bluegranitewaterco.com; truck decals and facility signs will be changed; and employees will wear new uniforms with the Blue Granite Water Company logo prominently stitched on the shirts. Additionally, our new corporate office address will be 130 South Main Street, Suite 800, Greenville, SC 29601.

The company's name change will not impact our customer service phone number ((800)367-4314) or any of our emergency contact numbers. Beginning January 15, 2019, customer bills will be issued with the new name and logo, and payments should be remitted to Blue Granite Water Company at that time; the general bill form, payment methods, and address for bill payments will remain the same.

Transformation is more than a name change; it's a different way of solving problems and serving customers. One thing has not changed as part of ~~our~~the rebranding and that is our commitment to always getting better. We are proud to serve you and the state of South Carolina.

Sincerely,

Catherine Heigel
President

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET



NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
LINDA ARMFIELD	420 Battery Circle - Lake Wylie	NO
✓ TONY HART	455 Battery Circle - Lake Wylie	YES
✓ Ken Love	604 Bethel Street Clover	Yes
Susan Gable	3223 Balkan Dr York	NO
JOHN A. BASIE	1525 BAYBERRY PL CLOVER	NO
✓ L. Michelle Transou	55 Honeysuckle Woods LW	Yes
Dorris Morgan	11 Woodvine Lane LW	No
1221 Chantallus Lassiter	3084 Rhododendron Pl Lake Wylie	NO
Raye Felder	114 Mary Mack Ln Fort Mill	No

✓ Love, Allison

697 Sandbar
Mund SC 29710

YES - LAST *

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

2

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Rebecca Lowery	412 Battery Circle, Clover 29710	yes
Charles Gable	3223 BALLAN DR. 29745	NO
Alicia Slate	Elderberry Ln 955 CLOVER, SC 29715	NO
Steve Ricomano	2317 PADDLERS COVE DR 29710	NO
Ann Richmond	2317 Paddlers Cove Dr Clover, SC 29710	No
✓ Judith Basie	1525 Bayberry Pl. LW, SC 29710	yes
CHRISTINE VAUDEUR	2148 SHADY POND LW 29710	~~NO~~
Jones Roberts	314 Basswood Ct. Lake Wylie 29710	NO
Ron Cunningham	113 Fox Run Dr, Fort Mill 29715	No

1222

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

3

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Joseph V. DePalma	133 Whispering Pines Dr, Lake Wylie, SC	Yes
✓ WKS Oliver	638 Forest Lane, Rock Hill, SC	Yes
✓ JOE ECKEVARAIA	955 Elderberry Ln, Clare, SC	YES
Lynnette Miscione	374 Kentmere Ln Lake Wylie	No
Vincent Miscione	" "	No
Ray Trancou	55 Honeyuckle Woods LW	NO
Casey Bartlett	609 Old Mill Rd Clover SC 29710	NO
Donna Wylie	2056 Shady Pond Dr Clover 29710	NO
Sue Roberts	314 Basswood Ct 29718	NO

1223

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

4

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Charles Battaglia	304 Brookside Drive Fort Mill 29715	YPS
CARDLYN CROWDER	8015 PASTIME LANE LAKE WYLIE 29710	NO
Rodney Crowder	"	NO
GRACE DEPA	607 OLD MILL RD CLOVED 29710	NO
ANNE MCCARTHY	306 BASSWOOD CT. LAKE WYLIE 29710	NO
✓ Dorothy Cunningham	113 Fox Run Dr, Fort Mill	yes
✓ Randy Lucas	204 Redcoat Drive Fort Mill	Yes-
Catherine Ray	320 Shingler Dr. Lake Wylie	no
1224 ✓ Gregg Adams	4084 Charlotte Hwy Lake Wylie, SC	Yes

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

5

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Tom Krowiec	230 Rentmere Lane, Lake Wylie	No
Renée Cieslikowski	6 Hummingbird Ct, Lake Wylie	No
Dave Hunt	3 Constellation, LKW	No
ROBERT HORMBERG	20 PINE KNOLL DR LKW	No
Aermon Parks	100 Brookside Dr. Fort Mill SC	
Carey Newton	2339 Branch Hill Ln Lake Wylie	No
Sheryl Molea	3023 Catnap Terr. Lake Wylie	No.
Paul McNeil	416 HARVEST TRAILER LAKE WYLIE	NO.
Myford Tillman	2152 Shady Ford Ln	No

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

6

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
~~Karl~~ + Marsha Masbacher	246 Ridge Reserve Rd	No
Karl "	"	No
✓ Johnnie Viets	928 Thorn Ridge Ln	yes
Lloyd O Viets	"	
✓ SARA Tomchin	265 Robin wood LAKE WYLLIE SC	yes
TIM HEBARTY	12 COURAGEOUS ST CLOVER SC	No
TIM BEED	3030 CATNAP TERRACE, LAKE WYLLIE, SC	NO
Catherine Myrick	179 Autumn Falls Dr. Lake Wylie SC	Yes
✓ JUDY DATHM	277 Robinwood Lane, Lake Wylie	yes

1226

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

7

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Steve Salata	4648 Water Oak Dr., Clover	✓
Kema Salata		
NEIL KOSTERMAN	266 ROBINWOOD LN / LK WYCHIE SC	NO
✓ Tim Veeck	204 Pelham Lane, Fort Mill, SC	✓ Yes
Garry Dicky	7028 BRASS BUOY PL. LK WYCHIE	NO
Brad Forrester Hornberg	1450 Wheel Tree Rd Lk Wylie SC	NO
✓ JOHN KISSINGER	1438 WHEEL TREE RD CLOVER 29710	✓ YES
Cathy Jure	6783 Montgomery Rd Clover SC	NO
1227 Frank Lintyne	605 OLD MILL RD, LW.	NO

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

8

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Mark Cieslikowski	6 HUMMINGBIRD CT ^{Lake} WYKE SC	no
Jennifer Morgan	8 Honeysuckle Woods ^{Lake} WYKE	No
ALEX Forrester-Hornberg	1450 Wheeltree Rd ^{Lake} WYKE	No
✓ Laura Parks	100 Brookside Drive FM	Yes
Jeannie Beed	3030 Catnap Terrace ^{Lake} WYKE	NO
Crystal Mitchell	416 Harvest Ter. ^{Lake} WYKE	NO
✓ DINALES Woods	3 Cedarwood Ct ^{Lake} WYKE, SC	YES
✓ Shawne Heeren	317 Swampfox Fort Mill SC	yes
✓ TREVOR HIGGINS	3105 SHADYKNOLL CT CLAYTON, SC	yes

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

9

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Jackie Ken Williams	435 Castlebury Ct, Clover, SC ²⁹⁷¹⁰	No
Thomas ~~Ken~~ Krejcek	650 Davenport Court SC ²⁹⁷¹⁰	No
Cindy Krejcek	650 Davenport Court SC	No
Donna FRYE	6 Old Fox Trail 29710	No
Tim FRYE SR	11 11 11	No
Judy Ordogne	8030 Pastime Ln, Lake Wylie ²⁹⁷¹⁰	No!
Nancy Martner	1034 Pepperwood Pl Klematis	No!
Phil Gunde	514 Gilcrease St	No!
Headen Thomas	546 Willow blue Run	No

1229

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

10

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
✓ Bryan Weber	337 Swamp Fox Dr	yes
Jacqueline Winkler	813 Virginia Pine Dr	NO
✓ Dale Braden	307 Brookside Dr	Yes
Marc Robboy	9019 Blue Dasher Drive	NO
Marilyn Robboy	9019 Blue Dasher Dr	NO
✓ Allen Vesting	1132 Black Walnut Rd	YES
✓ RAY WILLIAMS	313 Squirrel Ln	yes
DONALD Lovell	314 Squirrel LN	NO
BARBARA Lovell	"	"

1230

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

11

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Kenneth Williams	435 CASTLEBURY CT CLOVER	No
Joyce Robinette	23 TIMBERIDGE DR LAKE WYKE	NO
Paul Eastaway	3010 CARNAP TERR. L.W	No
DON ORDOGA	8030 PASTIME W LAKE WYKE, SC 29710	NO
Allison Shank	632 Bayou Circle Lake Wyke SC 29710	NO
Bryan Zirel	18 Pine Point Rd, Lake Wyke, SC	NO
Isha Benton	161 Greenridge Rd Lake Wyke SC	NO
Richard C. Dunkle	201 Redcoat Drive Fort Mill	No
Caprice Spennie	1442 Striped Bass Lane Lake Wyke	NO

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

12

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Rick + Marilyn Dunkle	201 Redcoat Dr. Ft Mill	NO
MARILYN DUNKLE	" "	NO
Jennifer Winterberg	578 Darenty Ct - Lake Wylie	NO
Julie Purvis	142 Eunika Ct Clover	NO
Laurie Janus	2713 Pleasant Oak Ct Lake Wylie	NO
Mike Janus	" " " "	NO
Becky Yates-Lukovich	4572 Summerside Dr. Lake	NO
Mark Lukovich	" " Wylie	NO
ROBIN WEBER	337 SWAMPFOX DR FT MILL	NO

1232

name	Address	Testify yes or no	13
Lakisha Pierre-Louis	1504 Hedge Apple Rd. Clarks SC 29710	NO	
Christine Baldizzi	2037 Curry Lane Lake Wylie SC 29710	NO	
✓ Linda Faile	111 Fox Run Dr Ft Mill 29715	yes	
Clay Knight	341 Swamp Fox Drive 29715	NO	
Catherine Sporre	4031 Home Grown Way Lake Wylie 29710	NO	
JULIE SWEET	30 TILBERIDGE DR CLARK	NO	○
KEN "	" "	NO	
Alfred Smith	208 Robinwood Ln, Lake Wylie SC	NO	
Ebony Whitlock	212 Robinwood Ln, Lake Wylie SC 29710	NO	
Theotis Whitlock	" "	NO	
✓ ANUA BYERS	201 Pelham Ln. Fort Mill, SC 29715	YES	
✓ Connie Knowlton	306 Brookside Ft Mill	yes	○

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2019-290-WS

14

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Laura Bradshaw	512 Red Wolf Ln Clover, SC 29710	No
Christie Klugh	1029 Pepperwood Place Lake Wylie SC 29710	NO
Trevor Wong	5014 Warbler Way Lake Wylie SC 29710	NO
Ellen Wong	5014 Warbler Way Lake Wylie SC 29710	Yes
Tabetha Jordan	282 Squirrel Lane LKW, SC 29710	No
Kris Holmes	282 Squirrel Lane LKW, SC 29710	No
Staci Jackson	1476 Harpers Inlet Dr. Clover, SC 29710	No
Margaret Londerville	18 KING HAWKLER CHASE LAKE WYLIE, SC 29710	NO
✓ Jerry Wojt	301 Kentmere Lane LAKE WYLIE, SC 29710	YES

name	Address	Testify yes/no	is
✓ Kelsey Vacher	106 Pelham Lane FFA Mill, SC 29715	yes	
✓ Brian Luckedoo	118 Autumn Falls Dr. Lake Wylie SC	yes	
Henry Prince	189 Riverview Terrace Lake Wylie 29710	no	
RACHEL CONTINI	2323 ADDLERS COVE DRIVE 29710	NO	
✓ Kelly Dela Cruz	203 Redcoat Drive, 29715	yes	
✓ Niko Dela Cruz	" "	yes	
✓ Dale Wakefield	1750 Winding Path Rd, 29710	~~yes~~ N/A	○
✓ Calvin Mc	102 Brookside Drive 29715	yes	
Lu Ada Burchfield	3 Weatherly Way 29710	NO	

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

16

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Jon-Michael Vandergrieff	209 Redcoat Dr./Ft. Mill SC 29715	YES
Sheila Hebert	5343 Baker Ln Clover 29710	NO
Kathryn Dadds	113 Eureka Ct, LK Wylie 29710	NO
Lori Kees	1709 Francis Knoll 29710	NO
Lynn Presley	3 Honeysuckle L ^{UK Wylie} 29710	NO
Walter U. Wire	106 Fox Run Dr Fort Mill SC	NO
Joseph Hoffer	2049 Lantana Ln, Clover, SC	No
Mike Hart	698 Montgomery Place SC	NO
Ken & Mary Brown	116 Pelham Lane, Ft. Mill, SC	NO

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

17

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Brian Collins	1012 Barcelona Pl, Lake Wylie, 29710	NO
✓ Julia Csokasy	126 Tall Pines Ct, Lake Wylie SC	yes
TIMOTHY SANDERSON	2728 PLEASANT OAK - LAKE WYLIE 29710	NO
Frank + Kathy Simone	38 New River Trace Lake Wylie 29710	No
✓ Jeannine Robbins	120 Brookside Dr Fort Mill SC	yes
✓ Chere Robbins	120 Brookside Dr	yes
Richard Defreitas	1030 Pegasus Pl	no
Carol Stastny	46 OLD POST RD.	no
LINDA MULLEN	275 RIDGE RESERVE DR LAKE WYLIE	NO

1237

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

18

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
MARK STENNER	171 MICK POND RD. CLOVER, SC 29710	NO
William Zille	6771 Montgomery Rd. Lake Wylie, SC 29710	NO
Alice Ewers	2 Catawba Ridge Ct. Lake Wylie, SC 29710	NO
Rand Ernst	4548 Summerside Dr Lake Wylie SC 29710	Yes
Charlene Scharf	24 Catawba Ridge Rd Lake Wylie, SC	NO
AMIKHA WILKINSON	1250 WILKINSON BLVD LAKE WYLIE, SC 29710	NO
DAVID ROUGHTON	202 BROOKSIDE DR FORT MILL 29715	YES
Bill Whinnant	781 Fawns Glen Lane	No
Aleg Whinnant	" " " "	NO

1238

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

19

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Grace E. Saylor	29 Sunrise Point Rd	NO
✓ Frank Bynum	210 Brookside Drive Fort Mill	YES
✓ Sabrina Cuthbert	3059 Rhododendron Place, Clover SC.	yes
Margie Zittle	6771 Montgomery Rd Lake Wylie	NO
✓ JIM EWERS	2 CATAWBA RIDGE CT LAKE WYLIE	YES
✓ THOMAS W. WILSON	1677 BELLEK RIDGE LAKE WYLIE SC	YES
SHAY CHATELAIN	9037 BLUE DASHER DR LAKE WYLIE SC 29710	NO
Anthony Bider	9008 BLUE DASHER DR LAKE WYLIE SC. 29710	NO
MARION E. Federline	1667 Fig Branch - Clover	NO

1239

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

20

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Toni BARBERA	1061 PEPPERWOOD PLACE	NO
TOM CARR	" "	NO
Jody Rusling	715 Kingsmill Lane Lake Wylie	NO
JOHN RUSLING	" " " "	NO
Sharon Dagonese	4055 Home Grown Way LAKE WYLIE	NO
✓ Tom DAGONESE	4055 Home Grown Way Lake Wylie	YES
✓ John McALLIOW	1152 BLACK WALNUT ROAD LAKE WYLIE	YES
✓ AMEENAH I LUQMAAN	2002 Shady Pond Dr CLOVER SC	YES
BARRY WINTERBERG	578 DAVENTRY CT, LAKE WYLIE 29710	NO

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

21

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
MIKE PERLAR	4799 GUMMERSIDE DR, CLOVER	NO
Dja Hoffer	2049 Lantana Ln, LKW	No
JAMES A. REEDER & LEADETTE	294 GREY FOX LANE	No
Carolyn Partin + Rust	1715 Mineral Springs Rd, Lake Wylie	No
Jim + Becky FERGUSON	9106 BLUE DASH LN, CLOVER	NO
Jim Augspurger	7 Pine Knoll LN, Clover	NO
Nancy Widiger	4051 Stone Grown Way Clover	NO
✓ Jordan Vacher	106 Pelham Ln	Yes
1241 ✓ Matt BOWKE	2127 PENINSULA DR	NO
✓ Andrea VanKampen	15 Sandy Cove Rd, Clover	Yes

PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

22

DOCKET NO. 2019-290-WS

Application of Blue Granite Water Company for Approval to Adjust Rate Schedules and Increase Rates

York County Council Chambers, 6 South Congress St., York, SC 29745

Thursday, March 5, 2020 at 6:00 PM

PUBLIC WITNESS SIGN-IN SHEET

NAME <u>PLEASE PRINT</u>	ADDRESS <u>PLEASE PRINT</u>	DO YOU WISH TO TESTIFY? YES/NO
Rozalynn Federline	1667 Fig Branch - Clover	NO
Doug BRADSHAW	512 RED WOLF LANE - LAKE WYLIE	NO
Justin Gallagher	123 Kentmere Lane - Clover	NO
✓ CELIA + ... BROOM	477 SNAP DRAGON DR - LAKE WYLIE	YES
Ben Broom	4015 Kyfrie Yack	no
MICHAEL BROOM	477 SNAPDRAGON DR LAKE WYLIE	NO
Rick Hebert	5343 Baker Lane Clover SC	NO
Dana Carls-Kree	141 Eureka Ct. Lake Wylie SC	NO
George Elmiger	4 Weatherly Way, Lake Wylie SC	NO

name	Address	Testify yes/ no	23
Russ VAN KAMPEN	15 SANDY COVE RD CLOVER, SC 29710	No	
Rob Contini	2323 Paddlers Cove Dr 29710	NO	
J. Maxwell	316 Swampfox Drive 29710	Yes	
Craig King	3014 Catwarp Terrace 29710	NO	
✓ Erika Ma	102 Brookside 29715	Yes	○
✓ Doug Chandler	307 Swamp Fox Dr. 29715	Yes	
Anthony Bishop	219 Pelham LN. Fort M. 11 S.C. 29715 @ same for both	NO	
CASSANDRA Bishop		NO	
✓ SARA STRICKLAND	117 AUTUMN FALLS DR, 29710	Yes	
Homer Buffington Jr.	332 Swamp Fox Dr. Ft. Mill SC 29715	yes	
Gail O'Donnell	4 OLD STAGE TRAIL, LK Wylie	yes NO	○