

In The Matter Of:
Rhode Island Public Utilities Commission

Application to Change Rate Schedules - Docket 4406
October 08, 2013



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1 STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
 2 PUBLIC UTILITIES COMMISSION
 3
 4 PROCEEDINGS IN RE:
 5
 6 DOCKET NO. 4406
 7 PROVIDENCE WATER SUPPLY BOARD
 8 APPLICATION TO CHANGE RATE SCHEDULES,
 9
 10 PLACE:RIPUC
 11 89 Jefferson Boulevard
 12 Warwick, Rhode Island
 13 DATE: October 8, 2013
 14 TIME: 10:00 a.m.
 15
 16 BEFORE:
 17 HERBERT DeSIMONE, PRESIDING COMMISSIONER
 18 MARGARET E. CURRAN, CHAIRPERSON
 19 PAUL J. ROBERTI, COMMISSIONER
 20
 21 APPEARANCES:
 22 BOYCE SPINELLI
 23 GREGG GIASSON, P.E.
 24 PETER LePAGE
 25 STEPHEN SOITO, P.E.
 DAVID PETRARCA, ESQUIRE
 JOHN BELL
 LEO WOULD, ESQUIRE
 SHARON COLBY CAMARA
 CYNTHIA WILSON-FRIAS, ESQUIRE
 MICHAEL McELROY
 PAUL GADOURY
 JOSEPHG KEOUGH, ESQUIRE
 CHRIS WOODCOCK
 JOSEPH SPREMULLI
 RICKY CARUOLO
 JEAN BONDAREVSKIS

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1 identification.
 2 MR. McELROY: Thank you, Ms. Wilson.
 3 (Off the record discussion.)
 4 MR. McELROY: Good morning. As you
 5 know, I'm Mike McElroy. I'm legal counsel to the
 6 Providence Water Supply Board. We appreciate you
 7 giving Providence Water this opportunity to
 8 present this technical session. Providence Water
 9 will explain its history of lead compliance and
 10 its plan set forth in this docket for
 11 unidirectional flushing of mains, also known as
 12 UDF, and for the replacement of unlined cast iron
 13 mains and related matters.
 14 We have with us today from Providence Water
 15 Boyce Spinelli, General Manager. Boyce, could
 16 you raise your hand. Joe Spremulli is in the
 17 back. He's Deputy General Manager for
 18 Operations. Ricky Caruolo, the Deputy Manager
 19 for Administration. Jeanne Bondarevskis, our
 20 Senior Director of Administration. Mary White
 21 (sic), our Senior Manager of Regulatory. Greg
 22 Giasson, P.E., sitting on the corner here will be
 23 making the presentation. Paul Gadoury sitting
 24 next to me is the former Director of Engineering
 25 for Providence Water. And he was the Director of

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1 (Hearing commenced at 10:00 a.m.)
 2 MR. DeSIMONE: All right. We're going
 3 to call this technical session to order. We have
 4 a presentation being made by Mr. McElroy on
 5 behalf of the Water Board; is that correct, Mike?
 6 MR. McELROY: Yes, that's correct.
 7 MR. DeSIMONE: On lead issues; is that
 8 correct?
 9 MR. McELROY: Lead and what we've done
 10 address the lead issues and what we're doing now
 11 in proposing in this docket in terms of both a
 12 unidirectional flushing proposal as well as
 13 unlined cast iron main replacement.
 14 MR. DeSIMONE: Okay. Are you ready to
 15 proceed?
 16 MR. McELROY: I am.
 17 MR. DeSIMONE: Please go ahead.
 18 MR. McELROY: Thank you,
 19 Mr. Commissioner.
 20 MS. WILSON-FRIAS: Commissioner, if I
 21 can interrupt, we've got two exhibits today for
 22 identification. One of them is Providence
 23 Water's presentation as Providence Water
 24 Exhibit 1 for ID and the notice of today's tech
 25 session is marked as Commission Exhibit 1 for

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1 Engineering when the lead issues started coming
 2 up, so we brought him here to answer any
 3 questions that might occur for that period of
 4 time. Peter LePage, the Senior Manager of
 5 Engineering is right there on the corner. Steve
 6 Soito, P.E. Senior Manager of Water Supply on
 7 that corner.
 8 So those are the people from Providence Water
 9 that were involved in making this -- putting this
 10 presentation together. An awful lot of time went
 11 into putting it together and I want to thank
 12 everyone who invested their time and their
 13 efforts in doing this.
 14 The presentation will be made primarily by
 15 Greg Giasson, but Greg and the rest of the
 16 Providence Water team are all available to answer
 17 any questions the commission may have. Greg?
 18 MR. GIASSON: Thanks. Good morning
 19 everybody. Thank you for the opportunity. To
 20 just give you a quick overview of our
 21 presentation. We're going to go through a quick
 22 history of the lead and copper rules, Providence
 23 Water's compliance with the lead and copper rule,
 24 our subsequent lead service line replacement
 25 program, the two consent agreements that we

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1 entered in with the Rhode Island Department of
 2 Health, and as a result of the second one, our
 3 main rehabilitation program, our unidirectional
 4 flushing program, and then some quick takeaways
 5 from the presentation.
 6 As you know, the lead and copper rule was
 7 enacted in 1991. Utilities were given about four
 8 or five years to figure out what they needed to
 9 do to come to compliance. Essentially, what the
 10 lead and copper rule required was 10 percent of
 11 your lead samples needed to be below the action
 12 level of 15 parts per billion. So in a utility
 13 Providence's size we have to take 100 samples, 10
 14 samples or less have to be below 15 parts per
 15 billion. In addition, as part of that time frame
 16 before we were asked to be in compliance, we had
 17 to optimize our corrosion control.
 18 This is a history of our action levels from
 19 1997 when the lead and copper rule was -- we
 20 first started going -- we made samples for
 21 compliance. So as you can see, this green line
 22 is the lead action level of 15. This red line
 23 here is our compliance data from 1997 through
 24 2005.
 25 As you can see, we were under the action

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1 pH, the expectations were that it would take some
 2 time for that pH, that lower pH, to take effect.
 3 You can see for 2006 and 2011 we exceeded 9 of 11
 4 samples.
 5 So this is just an extension of the graph you
 6 saw earlier. This little timeline, again, the
 7 lead action level in the green -- is the green
 8 line here. Our compliance sampling in the red
 9 right here is when we changed the pH to 9.7.
 10 2006 is when we went out of compliance.
 11 According to the lead and copper rule, once
 12 you exceed -- once you exceed the action limit
 13 two sampling periods in a row, there are two
 14 major consequences of exceeding the action level.
 15 One, is you have to embark on a customer
 16 notification and education program, and two, you
 17 have to replace 7 percent of your services
 18 annually, so I just -- this is from data on -- at
 19 the time. And when we went out of compliance in
 20 '06, we had to take an inventory of our lead
 21 services. At the time, we had about 25,000 lead
 22 services -- 25,600 lead services, so 7 percent of
 23 that was about 1,800.
 24 We took that inventory in '06 and we began
 25 the replacements in '07.

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1 level for those eight years. Right around that,
 2 2004, at that time Providence Water felt we were
 3 a little bit too close to the action level so we
 4 decided to commission a study to look at our
 5 corrosion control. The study, essentially,
 6 recommended that we lower our pH down to 9.7.
 7 This recommendation was based on EPA research
 8 findings.
 9 So if you look at this graph, our pH -- pH is
 10 along this axis, the pH -- our pH before 2005 was
 11 right around 10.2. The research finding shows
 12 that if you reduce your pH down to 9.7 that's the
 13 optimal pH for lead solubility -- reducing lead
 14 solubility.
 15 As you go down to 9.7, your solubility is at
 16 its lowest point, therefore, you shouldn't
 17 have -- theoretically, you shouldn't have issues
 18 with your lead service pipes.
 19 We went to DOH and they approved our
 20 treatment change and we subsequently lowered our
 21 pH from 10.2 to 9.7 in November of 2005.
 22 In 2006, we took our triannual sample and we
 23 exceeded the action level for the first time.
 24 However, when we -- when we went into -- we
 25 entered into this -- when we started lowering the

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1 MR. BOYCE: Gregg, excuse me, if I may
 2 just interrupt for a second. It's very, very
 3 critical to point out that whenever we say "lead
 4 service line" or "replace a line," remember,
 5 we're talking about a partial lead service line
 6 replacement. The regs only provided that
 7 Providence Water was responsible to replace the
 8 half of the lead service line that the utility
 9 owned, not the half that went from the curb into
 10 the home that was owned by the property owner.
 11 So it's very important to make that
 12 distinction that whenever we say "lead service
 13 line" we're talking about a partial lead service
 14 line replacement, although, we did offer an
 15 opportunity to the homeowner at that time to
 16 avail themselves of replacing their half and we
 17 would work with them and coordinate it with the
 18 contractor, et cetera. Go ahead, Gregg.
 19 MR. GIASSON: That's a good segway. So
 20 this is just a typical installation of the
 21 customer or residential service line. And that's
 22 a good point, Boyce, that Providence Water
 23 typically owns right to the curb stop and this
 24 blue part here is the private side owned by the
 25 customer.

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1 MR. ROBERTI: Is there anything at the
 2 curb stop innerface like a shutoff valve?
 3 MR. GIASSON: Yeah, the shutoff valve.
 4 MR. ROBERTI: Do all of your customers
 5 have shutoff valves?
 6 MR. GIASSON: Yeah. It's interesting to
 7 note that not every water utility has the same --
 8 has that same -- not every water utility owns
 9 from the curb -- from the main to the curb stop.
 10 Some of the utilities own just from the main and
 11 the customer owns from the main to the house. It
 12 varies by utility.
 13 MR. McELROY: Gregg, if a customer
 14 decided they wanted to replace their side, what
 15 kind of arrangements did we make for them?
 16 MR. GIASSON: That's the next slide.
 17 I'll get to that.
 18 MR. ROBERTI: But your meter is still --
 19 who owns the meter then?
 20 MS. WILSON-FRIAS: One person at a time.
 21 MR. ROBERTI: Who owns the meter?
 22 MR. GIASSON: The customer. Below a
 23 certain size, correct?
 24 MR. GADOURY: We own the meter. The
 25 customer used to own the meter, but at one point

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1 we transitioned.
 2 MR. GIASSON: You don't think you should
 3 own the whole thing, I mean, just much more
 4 seamless. I know we had this conversation back
 5 in --
 6 MR. McELROY: Ricky, is there something
 7 you can add?
 8 MR. CARUOLO: Providence owns the meter,
 9 so we take responsibility and ownership of the
 10 meter.
 11 MR. ROBERTI: Kind of odd that your
 12 meter, which you own, is on infrastructure owned
 13 by the customer. It's not typical with electric
 14 or gas.
 15 MR. CARUOLO: Meters are our cash
 16 register, so we want to make sure we can test
 17 that meter and make sure it's running accurately.
 18 As far as the private side service goes, you can
 19 run into issues if the service runs under a
 20 driveway, cobble stone driveways, some historical
 21 homes. There are some historical homes that we
 22 service and we're limited on, you know, what we
 23 can do and the liability that takes place there.
 24 There have been issues on the East Side
 25 specifically with some of the older homes that

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1 we're trying to put water meters in. And if we
 2 were to take responsibilities for that private
 3 side service, it could be -- it could be very
 4 costly to Providence Water or its payers.
 5 MR. ROBERTI: Do you have the ability to
 6 put the meter right where the curb stop is?
 7 MR. CARUOLO: Yeah, but then you run
 8 into other issues. There are confined space
 9 issues in some situations. Down south most of
 10 them are where the curb stop is and irrigation
 11 boxes. They don't freeze.
 12 We have issues where there's a lot of
 13 freezing. We're trying to get away from our
 14 confined space, to keep the meter from freezing,
 15 in an environment that will keep it safe.
 16 MR. GADOURY: I'd just like to add that
 17 we did own meters for years and years and years
 18 from the inception of the Water Supply Board.
 19 The owner -- the homeowner owned the meters and
 20 at some point, because we wanted control over the
 21 meters because it was difficult to get access to
 22 the meters to test them and to maintain them or
 23 to get homeowners to do so, we felt it was in our
 24 best interest for us to take control of the
 25 meters, and, therefore, we had control over

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1 replacement, testing and maintenance. So I don't
 2 know when that took place, Ricky, but that was
 3 how many years back?
 4 MR. CARUOLO: I would say in the
 5 mid-'90's. In the mid-'90's on meters two inches
 6 and below. Subject to check, Providence Water
 7 took over meters two inches and below, I would
 8 guess, in the mid-'90's subject to check. The
 9 large meters I think we took over ownership a few
 10 years after that. So we test our large meters on
 11 an annual basis, which our meters are three
 12 inches and above.
 13 MR. ROBERTI: And just one other
 14 question, there's no health issues with the
 15 service that's owned by the customer being lead,
 16 is it?
 17 MR. GIASSON: If they flush their line,
 18 no, there are no issues.
 19 MR. ROBERTI: What does that mean?
 20 MR. GIASSON: If they -- we put a
 21 customer notification out there. If you have a
 22 lead service line, they should flush your line
 23 for three minutes so that whatever water that's
 24 stagnant in that service line flushes out and you
 25 get water that's from the main. So if -- in

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1 other words, if you have a lead service, we
 2 have -- we recommend that you flush that line.
 3 You open your tap, flush that water that's
 4 stagnant here and you're getting water from the
 5 water main.
 6 MR. ROBERTI: Any documented health
 7 consequences if you don't do that?
 8 MR. GIASSON: I don't think so. I don't
 9 know if there's -- I don't think there's a whole
 10 a lot of literature out there.
 11 MR. ROBERTI: And just one other
 12 question, will you still have to maintain a
 13 9.7 percent pH balance because of the --
 14 MR. GIASSON: The pH, we'll get to that
 15 in a minute.
 16 MS. CURRAN: In addition to advising the
 17 customer to flush the line for three minutes, do
 18 you also advise them to flush with cold water?
 19 MR. GIASSON: That's kind of the
 20 anecdotal term we put out there, flush it for
 21 three minutes until it's cold. Usually if it's
 22 cold, it means it's out of the main.
 23 MS. CURRAN: So you definitely shouldn't
 24 turn on the hot water?
 25 MR. GIASSON: Right. Right. I don't

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1 know the exact term, but we say turn on your cold
 2 tap, yeah. So this is just getting into some
 3 statistics on our LSR program, replace about
 4 10,000. As Boyce said, these are on our side,
 5 the public side. And it's interesting to note
 6 that, as part of this program, we offer -- we
 7 offer to the customer to -- we make our
 8 contractor available if they want to do their
 9 private side. We actually give them a cost
 10 estimate. I'll get into that a little later.
 11 And of the -- during the program of the 10,000
 12 that we offer or that we did, only less than 2
 13 percent actually did their side.
 14 We also -- as part of that, we offered an
 15 interest free loan for a year. And also, it's
 16 also important to note, if somebody -- if a
 17 customer does the private side, we'll do the
 18 public side.
 19 MR. DeSIMONE: I have a question. How
 20 much would it typically cost to have the private
 21 side replaced?
 22 MR. GIASSON: Correct me if I'm wrong,
 23 Paul. I think the numbers range anywhere from 3
 24 to \$5,000. Actually, could be low as a thousand
 25 depending on the length of the service, how deep

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1 it is.
 2 MR. GADOURY: You've got extremes that
 3 could be 1,000. You get some that are 7 or 8,000
 4 depending on what you're dealing with on the
 5 property, sidewalks, trees and walks.
 6 MR. ROBERTI: If you do replace that
 7 service, do you give the customer a fixed price
 8 or do you charge by the hour or do you say we
 9 think it's going to be 4,000 but if you hit a
 10 snag it might be 15?
 11 MR. GIASSON: Yeah, we -- so on the
 12 private side, you're asking?
 13 MR. ROBERTI: Yeah.
 14 MR. GIASSON: On the private side, we
 15 give them a cost estimate. It's their obligation
 16 to contract with the contractor. Like, we'll
 17 give them a rough number based on length. We'll
 18 look at the length. We'll look at the house.
 19 Say here's what we think it will be but it's --
 20 the customer -- it's on the customer to do that
 21 contract with the contractor.
 22 MR. SPINELLI: Excuse me. Boyce
 23 Spinelli. To me, it's not surprising that only
 24 one-and-a-half percent of the 10,000 residences
 25 in which we replaced our side shows they replaced

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1 their side, because, remember, we're constantly
 2 telling people if you're concerned about it,
 3 flush your water for three minutes in the
 4 morning.
 5 So me, as a consumer, if I knew that, well, I
 6 have the choice of spending \$5,000 to replace my
 7 half of the line or flushing the water before I
 8 make my coffee in the morning. I mean, running it
 9 until it gets cold, I'm going to probably choose
 10 that option. So to me, again, it's not
 11 surprising that we had such a low percentage.
 12 MR. DeSIMONE: I have another question.
 13 How much does it typically cost to replace your
 14 side?
 15 MR. GIASSON: Roughly about \$4,000 a
 16 service. And, actually, I think we had it. It
 17 was back here. Sorry to go back on you. So if
 18 we, roughly, replaced about -- roughly about
 19 2,000 a year, so that's -- it costs about
 20 \$8 million per year, so it averaged out to about
 21 4,000 a service. And just -- I wanted to outline
 22 some of the notification process. Most of this
 23 is spelled out in the lead-copper rule.
 24 MS. WILSON-FRIAS: Can I interrupt for
 25 one second?

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1 MR. GIASSON: Go ahead. I'm sorry.
 2 MR. DeSIMONE: Cindy, identify yourself
 3 since you're having everybody else do it.
 4 MS. WILSON-FRIAS: You just said that it
 5 was approximately 4,000 for the public side. Was
 6 it also 4,000 for the private side? Because I --
 7 MR. GIASSON: Our side is generally
 8 about \$4,000, whether it's a long side service or
 9 a short side service. And then the customer
 10 side, the private side, could range anywhere
 11 between 1,000 to \$10,000 depending on how long
 12 their service is. What you have to replace is
 13 all kinds of variables that go into that price.
 14 MS. WILSON-FRIAS: Okay. Thank you.
 15 MR. GIASSON: So this is just the
 16 customer notification process that we go through.
 17 Again, it's required by the lead and copper rule.
 18 We let the customer know 45 days in advance that
 19 we're going to be replacing their side of the --
 20 actually, we send them a letter before the
 21 construction season and letting them know we're
 22 going to be doing work on the street, give them
 23 the option to have us do a cost estimate for
 24 them, a rough cost estimate. Then we'll -- as it
 25 gets closer to when we're going to do their

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1 service, we'll give them a 45-day notification
 2 and a 14-day notification. And, again, this is
 3 all spelled out in the lead and copper rule.
 4 MS. CURRAN: And does Providence Water
 5 put all this information online?
 6 MR. GIASSON: I'm not sure. We might
 7 have it online. I'd have to check on that.
 8 MS. CURRAN: And is the list of the
 9 replacement areas available online?
 10 MR. GIASSON: Again, I'd have to check
 11 on that. I think we try to -- we're moving ahead
 12 in the presentation, but we've -- as you know,
 13 we've switched from lead services to main
 14 replacements. So we let folks know that with the
 15 main replacements going on -- I think we have it
 16 online. I'd have to double-check that for you.
 17 MR. ROBERTI: Let me ask the Division.
 18 The Division maintains the website. Does the
 19 Division put any of this stuff on the website for
 20 people accessing our website?
 21 MR. BELL: No, we don't. John Bell.
 22 Our website does link to Providence Water and I
 23 recall that Providence Water did include maps of
 24 the areas that we were doing lead service
 25 replacement. I guess I do have a question of

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1 Providence Water. Is this still an ongoing
 2 program?
 3 MR. GIASSON: That's a good question.
 4 Yes. Now that we've switched to main
 5 replacements, we'll replace our -- the public
 6 side as a lead service as part of that main
 7 replacement program.
 8 MR. BELL: And then the same thing with
 9 the customer notification --
 10 MR. GIASSON: Yeah, all that because --
 11 THE REPORTER: One at a time.
 12 MR. GIASSON: Go ahead. I'm sorry,
 13 John.
 14 MR. BELL: As part of the main
 15 replacement program and the associated service
 16 replacement you do, you still notify the customer
 17 about replacing their side as they wish?
 18 MR. GIASSON: Yeah. All this is still
 19 in place because we're still out of compliance
 20 with the lead and copper rule.
 21 MR. BELL: I have another question. Do
 22 you know how many -- by transitioning to main
 23 replacement how many services you're doing a year
 24 now?
 25 MR. GIASSON: I think this -- I'll get

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1 the exact number for you, John. I think this
 2 year was about 3 to 500. Typically, if we're
 3 rehabbing old cast iron mains, generally lead
 4 services are associated with that. Does that
 5 answer your question?
 6 MR. BELL: Yes.
 7 MR. GIASSON: All right. Just what I
 8 wanted to throw -- show you was this is kind of a
 9 flow chart of the 45 days and how that flows.
 10 And I just wanted to add into that that that we
 11 also include a 72- and a 24-hour door hanger so
 12 that if it's not an owner-occupied residence
 13 we'll let them know that something's going on.
 14 And then also if required -- we're required
 15 to take a lead sample post lead service
 16 replacement, and this is just a notification
 17 about the sample being taken and then we collect
 18 and analyze the sample.
 19 And then we also, within the last couple of
 20 months, sent out this brochure about information
 21 on lead. And if -- we can make that available to
 22 folks if they -- if they want to.
 23 So right around the 2010 time frame, a lot of
 24 data was coming in on partial lead service
 25 replacements. And the data -- the data showed

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1 that there really -- specifically the EPA was
 2 really worried about the efficacy of partial lead
 3 service replacements. So what the EPA did was
 4 they had the Science Advisory Board take a look
 5 at all available data relating to the partial
 6 lead service replacements. And basically the
 7 finding that they had was that the quantity and
 8 quality of available data are inadequate to fully
 9 determine the effectiveness of partial lead
 10 service line replacements in reducing lead --
 11 drinking water lead concentrations.
 12 So as a consequence of this, the EPA is
 13 looking at -- is relooking at the lead and copper
 14 rule and also looking at the -- rethinking the
 15 requirement of partial lead service replacements.
 16 As part of that, DOH -- DOH kind of changed
 17 their thinking on how they wanted to do the
 18 partial lead services replacement. So in 2012,
 19 we entered into a consent agreement with the
 20 Department of Health. As part of that consent
 21 agreement, they asked us to convene an expert
 22 panel. The panel was comprised of folks from
 23 Academia, the water profession and some
 24 consultants. And it was actually -- the consent
 25 agreement was executed on June 12th and the

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1 expert panel was required to produce a report by
 2 August 31st.
 3 This is just a list of the folks, Mark
 4 Edwards, Dan Giamar, Mike Schock from the EPA.
 5 Mike is generally considered one of the foremost
 6 researchers on corrosion control and distribution
 7 systems and it was -- he was somebody that we
 8 were really glad to have on this panel.
 9 So the expert panel met and they came up with
 10 some recommendations. The real big
 11 recommendation that they asked -- that they came
 12 up with was returning back to our pre-2005 pH,
 13 which was 10.2, and also they asked us to look at
 14 starting a unidirectional flushing program.
 15 And then in addition to -- in addition to
 16 going back to our pH, they wanted us to expand
 17 our lead service line sampling program to really
 18 look at what's happening within that service
 19 line, as you had mentioned earlier.
 20 MR. SPINELLI: Again, Boyce Spinelli, I
 21 don't know if it's appropriate to make this
 22 comment now, but Providence Water initiated this.
 23 Providence Water for a long time, to be very
 24 blunt here, felt we were throwing rate payer
 25 money away. What sense does it make to replace

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1 half of the lead service line and leave half in
 2 place. So you're not only not addressing the
 3 half that's in place, you're not addressing any
 4 lead plumbing that's inside the house, nor a lot
 5 of brass fixtures have lead components.
 6 The analogy I use, you go to the surgeon with
 7 a cancerous tumor and he says I'm going to remove
 8 half of it because you're better off with half
 9 than the whole thing. Well, that's not
 10 necessarily true. Maybe in cutting half of it
 11 open it's going to spread quicker throughout your
 12 body or something. I mean, it just never made
 13 sense. And so it was a -- and even the EPA was
 14 having second thoughts, and that's why -- I mean,
 15 that's why we're allowed to discontinue spending
 16 7 or \$8,000,000 of rate payer money and replacing
 17 half of the problem and diverting that money to
 18 where we feel the rate payer gets a true benefit,
 19 and that is replacing unlined cast iron mains.
 20 And we'll get into that a little bit later.
 21 MR. ROBERTI: When you say "unlined cast
 22 iron mains," that's just a separate capital
 23 requirement that you have going or is that
 24 related to the lead?
 25 MR. SPINELLI: It's related -- well,

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1 very good question. We'll explain that a little
 2 bit later. Replacing the unlined cast iron mains
 3 really has two benefits. One definite benefit is
 4 that that's why we get these red water
 5 complaints. Some of you here may have
 6 experienced that, and we'll show you pictures of
 7 what an unlined cast iron main looks like. You
 8 get the tuberculation and it causes red water.
 9 That's why we're doing the unidirectional
 10 flushing and that's why we want to replace that.
 11 But, also, when we convened the expert panel,
 12 there's some growing evidence that there is a
 13 link between iron corrosion and lead corrosion.
 14 And so we'll get into that a little bit later.
 15 MR. ROBERTI: And given what you've
 16 said, it's not that the federal requirement for
 17 the replacement that you need to do 1,800, you
 18 still have to do that, is that --
 19 MR. SPINELLI: No, we -- that's what the
 20 consent agreement provided, that we no longer
 21 need to do that. But because there's no free
 22 lunch, they required some quid pro quos, like,
 23 okay, get the expert panel, study this, do a
 24 report, increase your sampling, et cetera. And
 25 we'll get into all of that.

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1 MR. GIASSON: In addition to these other
 2 requirements, they were asking that we also --
 3 kind of what Boyce alluded to -- look at other
 4 things that may be causing our red water issues
 5 and our high lead concentrations.
 6 MR. McELROY: Can I interrupt you for a
 7 minute? Can you go back to the previous slide?
 8 MR. GIASSON: Absolutely.
 9 MR. McELROY: Are we doing those things?
 10 Have we started doing the unidirectional
 11 flushing.
 12 MR. GIASSON: That's a good point, Mike.
 13 For those of you who were on the tour and saw the
 14 loops that we had at Academy Ave, we've
 15 constructed some additional experimental types at
 16 the treatment plant and we're starting to do some
 17 pipe loops for alternative corrosion control
 18 strategies.
 19 MR. McELROY: And you've started doing
 20 some UDF?
 21 MR. GIASSON: Yes.
 22 MS. CAMARA: Gregg, quick question.
 23 Sharon Colby Camara with the Commission. If
 24 Providence Water never reduced the pH, would you
 25 be in this mess now?

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1 MR. GIASSON: I'm expressing my opinion.
 2 Probably not, but I -- we won't know. We won't
 3 know. Maybe we start -- well, actually, there's
 4 probably a good lead into this slide. We
 5 switched to our pH -- pre-2005 pH in March of
 6 2013 earlier this year. So we're collecting a
 7 lot of data as to the efficacy of changing to the
 8 higher pH. We'll know more probably the end of
 9 this year, early next year, as to once we start
 10 doing more lead and copper compliance if that was
 11 the wrong decision.
 12 MS. CAMARA: So the data that you
 13 received back in -- when you reduced it, when was
 14 that?
 15 MR. GIASSON: '05.
 16 MS. CAMARA: Did that substantiate
 17 reducing it?
 18 MR. GIASSON: Yeah. When Providence
 19 Water reduced the pH back in '05, it was -- not a
 20 lot of folks -- not a lot of utilities have a
 21 high pH around 10.2, so the recommendation was
 22 based on some EPA empirical data. And it looks
 23 like that empirical data, it didn't take into
 24 account the cast iron main and all the other
 25 issues of such a large system with all our cast

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1 iron main was really the issue.
 2 MS. CAMARA: So the study was done by
 3 whom?
 4 MR. GIASSON: Camp, Dresser & McKee.
 5 MS. CAMARA: And it was submitted to the
 6 Department of Health for approval; is that
 7 accurate?
 8 MR. GIASSON: The treatment change was
 9 submitted to the Department of Health for
 10 approval. They submitted their report to us,
 11 correct, Paul?
 12 MR. GADOURY: CDM submitted it to us and
 13 we submitted it to DOH. I think an important
 14 point to make -- Paul Gadoury -- is that CDM
 15 conducted the study but they relied heavily on
 16 information and research that had been conducted
 17 by Michael Schock with the EPA who was one of the
 18 nationally recognized, you know, gurus when it
 19 comes to lead issues and water. And he's done a
 20 ton of research and he's -- so they work closely
 21 in concert with him. And I think that low
 22 solubility point of 9.7 came through some of his
 23 own experimentation. So there was some good
 24 solid, you know, expertise behind that
 25 recommendation at the time.

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1 MS. CAMARA: What is the data showing
 2 you now from March to present?
 3 MR. GIASSON: As of right now, it is
 4 temperature dependent. But it looks like it's
 5 lowered -- across the board, it's lowered, the
 6 lead in the service lines, but, again, it's kind
 7 of -- we need to kind of get more data to truly
 8 understand what the efficacy is.
 9 MR. ROBERTI: Brief question. Reading
 10 that chart, am I to understand it correctly,
 11 prior to March 25th, 2013, had you not done a
 12 unidirectional flushing program?
 13 MR. GIASSON: Correct.
 14 MR. ROBERTI: There had not been one in
 15 place prior to that date?
 16 MR. GIASSON: We piloted it late in 2012
 17 knowing that we were probably going to head down
 18 that road. We did some pilot areas. I think we
 19 did Fox Point area. We did some pilot areas to
 20 see if the program would work and it was very
 21 successful.
 22 MR. SPINELLI: Excuse me. I don't know
 23 if this would -- if this would be a good segway.
 24 Providence Water, prior to that, we did a lot of
 25 flushing, but a true UDF is quite a bit

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1 different.
 2 I don't know if we should take a couple of
 3 minutes and either Paul or Gregg explain what's
 4 involved in UDF. In other words, whenever we
 5 would get complaints about -- a person would call
 6 with a red water complaint, we would go out and
 7 spot flush. We did a lot of that.
 8 But Paul or Gregg, could you please -- I
 9 think it's important to take a minute and just
 10 explain briefly what's involved with a true UDF,
 11 about the hydraulic modeling and --
 12 MR. GIASSON: Yeah. A UDF program,
 13 essentially, we take the hydraulic model that we
 14 developed and it's really a systematic or a
 15 surgical flush of pipes in our system where you
 16 isolate a certain pipe and then you open up a
 17 hydrant and you just flush particular pipes in
 18 your system.
 19 And the idea behind that is that you just --
 20 a traditional flushing program you're just
 21 opening up hydrants and flushing water out of the
 22 mains. The water could come from any of the
 23 mains in that area. But a unidirectional
 24 flushing program really takes -- if you know you
 25 have an old pipe that has dirty water in it, it

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1 really surgically takes that water through that
 2 main and out that hydrant. And it's -- it's less
 3 susceptible to water quality complaints or system
 4 upsets.
 5 MR. SPINELLI: And, again, I'm not an
 6 engineer, but the hydraulic model tells you what
 7 valves to keep open and what valves to shut, what
 8 flow that you need to get through that pipe and
 9 how long to flow the water to get the effect that
 10 you want. And you always have -- you're not
 11 flushing -- once you clean out a system that
 12 you're not then subsequently flushing dirty
 13 water, you know, back through that. So it's
 14 fairly involved and that's what we're doing now.
 15 MS. CAMARA: How is this water captured?
 16 Is this unaccounted for water?
 17 MR. GIASSON: Yeah.
 18 MS. CAMARA: So when you're advising
 19 your customers to run their tap for three,
 20 five minutes or whatever, how does that affect
 21 your conservation efforts?
 22 MR. GIASSON: How does running their
 23 tap --
 24 MS. CAMARA: Yeah. Does that --
 25 MR. ROBERTI: If every residential

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1 customer ran their water for three minutes, what
 2 gallonage is that, and how much does that
 3 increase their rate and how much does that
 4 increase their rate to Narragansett Bay
 5 Commission to?
 6 MR. GIASSON: I don't have those
 7 numbers. I will say that we're only recommending
 8 the folks that have lead service lines, which at
 9 this point is about 15,000 services out of
 10 72,000.
 11 MS. CAMARA: Are you capturing the
 12 gallons that -- are you capturing the amount of
 13 water that is --
 14 MR. GIASSON: That we're flushing or the
 15 customer is --
 16 MS. CAMARA: Either one.
 17 MR. GIASSON: We're capturing how much
 18 water we flush with the unidirectional flushing
 19 program. We're not capturing -- I don't know if
 20 we would have the ability to capture what goes
 21 through a customer's meter.
 22 MR. GADOURY: But that would not be
 23 unaccounted for water, but if you run the
 24 numbers, though, it's extremely minor. And it
 25 sounds like a lot of water, you know, two or

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1 three gallons a minute for three minutes, but in
 2 the big picture it's minuscule, you know.
 3 MR. SPINELLI: It's like two or three
 4 cents. It's like two or three cents.
 5 MR. McELROY: Jeanne.
 6 MS. BONDAREVSKIS: Jeanne Bondarevskis.
 7 In the notice that we send to the customers, we
 8 recommend that they flush their -- or run their
 9 water for three minutes which uses approximately
 10 three gallons of water and that's approximately a
 11 penny in our current rates.
 12 MS. CAMARA: Per day?
 13 MS. BONDAREVSKIS: Per day, yes.
 14 MR. GIASSON: So, again, as part of the
 15 expert panel recommendations, we initiated a full
 16 fledged unidirectional flushing program. And we
 17 also, as we discussed, we initiated a service
 18 lines sequential sampling program to kind of
 19 really look at what's happening in that lead
 20 service line.
 21 And Boyce alluded to this earlier, but as
 22 part of the expert panel, some of the research
 23 that the expert panel members were doing were
 24 looking at the possible evidence suggesting a
 25 link between high iron release, which comes from

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1 our cast iron main, and the lead release out of
 2 the lead service line. And they also were
 3 suggesting that there was a link between
 4 microbial activity in the system and lead release
 5 in the service lines.
 6 So, essentially, main replacement and
 7 unidirectional flushing helped reduce the iron
 8 levels and the microbial activity, therefore, it
 9 could reduce lead levels.
 10 As part of that information, we renegotiated
 11 a second agreement -- consent agreement with the
 12 DOH. The DOH, they granted another stay of the
 13 lead service replacements so we didn't have to do
 14 another 7 percent.
 15 And the two big parts of the 2013 consent
 16 agreement was the main -- ramping up the main
 17 replacement program and instituting a
 18 unidirectional flushing program, which, like I
 19 said, we knew this was coming and we did a pilot
 20 in 2012.
 21 Again, these two requirements were really a
 22 function of what was coming out of the expert
 23 panel in their -- and what they were kind of
 24 thinking was a link.
 25 So I just want to take a quick moment to talk

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1 about the IFR plan. The IFR, the rules and regs
 2 went into place in 1995. Providence Water
 3 submitted their first IFR plan in 1996. The --
 4 we were required to put in a 20-year program.
 5 These plans were updated every five years. DOH
 6 approves these plans and the PUC reviews and
 7 funds these plans.
 8 And this graph I just want to show quickly,
 9 these amounts are the 20-year amounts in each one
 10 of these programs. And really what this shows is
 11 that main replacement and lead service
 12 replacements has always been part of our IFR
 13 program even back in 1996, but it's -- as you can
 14 see, the focus has shifted a little bit. In
 15 1996, we were more focused on the treatment plant
 16 and that focus, obviously, has shifted in 2010
 17 and 2013.
 18 Another point to make here is that as part of
 19 the consent agreement with DOH they asked us to
 20 do an updated IFR and within that updated IFR
 21 they asked us to ramp up our main replacement
 22 program.
 23 So as part of the negotiations of the consent
 24 agreement with DOH, they had initially requested
 25 that we replace all -- rehabilitate all 550 miles

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1 of our mains in ten years. As you can see,
 2 there's a whole host of issues with that.
 3 There's the cost, there's just manpower, just --
 4 the upset to your distribution system, there was
 5 just a lot of issues with that.
 6 So we negotiated with the Department of
 7 Health. And in addition to -- I think we had
 8 about six or nine million allocated for mains in
 9 2014 and we just -- and I don't know the exact
 10 numbers, but we added to those numbers to come up
 11 with these figures here, 12 million in 2014,
 12 15.5 million in 2015 and 16.4 in 2016. These
 13 numbers are based on what we think from a
 14 manpower perspective we can handle in a fiscal
 15 year and also what we hope won't effect our
 16 distribution system while the work's going on.
 17 MS. WILSON-FRIAS: So, Gregg, did you
 18 negotiate that you would spend \$12,000,000 or did
 19 you negotiate that you would replace a certain
 20 number of miles?
 21 MR. GIASSON: That's a good question.
 22 We have a rule of thumb of it costs about a
 23 million dollars a mile. Now, that number can go
 24 up or down based on if you do a cleaning on
 25 lining or you do main replacement, if it's in a

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1 busy city street versus a cross-country road.
 2 It's just -- that number is just a rule of thumb.
 3 And it was because we don't -- like, we don't --
 4 some mains we want to -- this 100-year cast iron
 5 pipe is structurally as good as the day it was
 6 installed about 100 years ago.
 7 MS. WILSON-FRIAS: So you would want to
 8 clean and line that?
 9 MR. GIASSON: Yeah. As part of this --
 10 as part of the DOH consent agreement, we were
 11 required to submit a main replacement program,
 12 which we did. And there's -- and that program
 13 takes into account age, pipe material, you know,
 14 history of breaks. So we did all that to kind of
 15 look at which pipes in our system we needed to
 16 rehabilitate, which pipes in our system we needed
 17 to replace.
 18 MR. SPINELLI: Excuse me. If I may just
 19 add, that was a very good question and we
 20 consciously did it in dollars, because as Gregg
 21 said, there are too many variables if you commit
 22 to miles because some mains are good candidates
 23 for cleaning and lining, some are not, et cetera.
 24 And then the other thing I wanted to point
 25 out, Gregg just alluded to trying to determine

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1 which mains you replace first or which ones have
 2 the highest priority because it's not necessarily
 3 a function of age. Some of the oldest pipes
 4 might be the less problematic.
 5 And this is where the UDF program could help
 6 us because some of these mains are going to
 7 respond much better to UDF than other mains. And
 8 where a main responds well to UDF, then that
 9 might be a main that you wouldn't have to address
 10 right away.
 11 MS. CAMARA: How many miles total do you
 12 have of unlined cast iron?
 13 MR. GIASSON: As of right now, I think
 14 it's right around 550 miles of unlined cast iron.
 15 MS. CAMARA: And have you replaced any
 16 of it?
 17 MR. GIASSON: Yeah. Yeah. We started
 18 this program in calendar year 2011. I think
 19 we've roughly done about 15 miles.
 20 MS. CAMARA: 15, one five?
 21 MR. GIASSON: 15, one five. We can get
 22 the exact number for you.
 23 MR. GADOURY: I would just like to point
 24 out that we have actually always replaced mains
 25 since the inception of the program in 1996, but

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1 the more earnest and aggressive efforts started
 2 when Gregg just mentioned in --
 3 MR. GIASSON: 2010.
 4 MR. GADOURY: But it's not that we
 5 ignored main replacements. We've been doing main
 6 replacements from Day One.
 7 MR. GIASSON: So we just want to show
 8 you a picture. This is a picture of a cast iron
 9 main that has tuberculation on it. And then this
 10 is -- I hope you can see this -- the cast iron
 11 main that was cleaned and lined and you can see
 12 the cement lining in here.
 13 MR. SPINELLI: Excuse me. Is that a
 14 six-inch or do you know?
 15 MR. GIASSON: Eight. Tried to show a
 16 ruler for a scale. I think this is eight also.
 17 MR. SPINELLI: Okay.
 18 MR. GIASSON: I also want to point out
 19 that you can really see -- I don't know the age.
 20 If I had to guess, this pipe's probably 80 to
 21 100 years old and that cast iron is still in
 22 pretty good shape.
 23 In the second part of the consent agreement,
 24 the major part was the unidirectional flushing
 25 program. We modeled our program after Boston

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1 water and sewer; however, the DOH came in as part
 2 of the negotiation they wanted to flush our
 3 system in two years. And that's -- it just --
 4 that would be just too burdensome of a task and
 5 it was just --
 6 MR. DeSIMONE: Can I go back to the
 7 prior slide?
 8 MR. GIASSON: Yeah.
 9 MR. DeSIMONE: How do you clean that?
 10 How is that done?
 11 MR. GIASSON: Cleaning and lining?
 12 MR. DeSIMONE: Yes.
 13 MR. GIASSON: If you would clean and
 14 line this pipe, what they typically do is it's --
 15 they -- there's a mechanism, they call it a pig,
 16 it's a pig and they scrape -- physically scrape
 17 the cast iron line. So you're taking off this
 18 tuberculation plus a little tiny bit of the cast,
 19 cast iron. And then what they'll do is
 20 they'll -- behind that, they'll have a machine
 21 that has -- that lines that pipe with the cement
 22 lining.
 23 MR. DeSIMONE: Okay.
 24 MR. GIASSON: It's actually really --
 25 it's a really good technique. Pawtucket's done a

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1 bunch of it. We've done some. It's a pretty --
 2 it's pretty well-known. It's a pretty -- oh, the
 3 term I want, it's well-known. A lot of people do
 4 it throughout the country.
 5 MS. WILSON-FRIAS: And what happens to
 6 all of that stuff?
 7 MR. GIASSON: It gets flushed out of the
 8 hydrant. Actually, I'm sorry, take that back.
 9 They'll cut in a test pit, so it will cut out a
 10 section of pipe and all that stuff will be
 11 removed. I'm not sure as far as the discharge.
 12 I don't -- I don't know exactly where they
 13 discharge it to, whether it's to the sewer or
 14 they put it to a holding basin and they treat it.
 15 I don't know.
 16 MS. WILSON-FRIAS: So would it be a
 17 part of the -- so that would be separate from,
 18 like, the sludge removal or anything like that?
 19 MR. GIASSON: Yeah. Yeah. The sludge
 20 removal -- like, you're talking about at the
 21 plant?
 22 MS. WILSON-FRIAS: Yes.
 23 MR. GIASSON: Yeah. That's separate,
 24 yeah. This is out in the distribution system.
 25 So we negotiated the following with DOH.

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1 They asked us to do 10 percent of our system by
 2 2013, 15 percent of this system by 2014, and --
 3 by the end of 2014, and then 20 percent by the
 4 end of 2015.
 5 Like I said, we modeled it after Boston water
 6 and sewer. Boston, I believe, does it every five
 7 years, the entire system every five years --
 8 unidirectionally flushes their system every five
 9 years. And that's the goal. At some point, we
 10 want to flush our entire system every five years.
 11 In this program, we'll just -- we'll keep it
 12 going in perpetuity.
 13 So I just wanted to take a quick note.
 14 Again, as I mentioned earlier, these are straight
 15 out of the -- off the EPA website, but just
 16 wanted to -- the EPA's looking at a whole host of
 17 things.
 18 You know, they're looking at this lead
 19 sampling protocol based on right now it's first
 20 flush for the -- if they're compliance samples.
 21 They're looking to investigate, maybe want to
 22 take a sample not exactly -- not necessarily the
 23 first flush, but maybe a couple minutes into the
 24 service line. This sample site collection, they
 25 might ask utilities to change their lead and

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1 case request that would allow us to fund the full
 2 implementation of a unidirectional flushing
 3 program, and that will continue, as Gregg said,
 4 in perpetuity. So that's something that will go
 5 on year after year after year and we're not going
 6 to stop doing that assuming the PUC provides us
 7 with the necessary funds to do that.
 8 With regard to the cast iron main, either
 9 replacement or lining, we have a substantial
 10 amount of money to ramp that program up, as he
 11 mentioned, because we're required to do both UDF
 12 and the replacement by the new DOH consent
 13 decree. So there's a lot of money. Probably the
 14 biggest part of the money that we've asked for in
 15 this rate case deals with the cost of doing the
 16 online cast iron replacement or realigning.
 17 So we were very pleased when Cindy suggested
 18 that we make a technical presentation on this
 19 because it allows us to focus on this one issue
 20 and explain to the Commission why it is we're
 21 asking for this much money for these two specific
 22 projects.
 23 And I think the other thing I have to
 24 emphasize, and I'm sure the Commission
 25 understands, but we're required to distribute

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1 copper rule sites. And the other real important
 2 piece is that they're reevaluating the whole
 3 partial lead service replacement program.
 4 So I just wanted to add some quick take
 5 aways. The main -- rehabilitating mains, whether
 6 it's cleaning the lining or replacement, is a
 7 best management practice in all water systems.
 8 And so like I said, we've had -- Providence
 9 Water's had main replacement in the IFR plan and
 10 it's really ramped up as part of the DOH consent
 11 agreement.
 12 Flushing is also a best management practice
 13 and that's a program that -- as we will with the
 14 main replacement program, the flushing program
 15 will keep it going. It will be ongoing processes
 16 forever.
 17 And then the other point that I wanted to
 18 point out -- the other point I wanted to make was
 19 that we will continue to do lead service
 20 replacements as part of our main replacement
 21 program.
 22 That's what I have. Hopefully I didn't bore
 23 you to tears. Any other questions?
 24 MR. McELROY: I can say that we have a
 25 substantial amount of money in the Wright (sic)

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1 safe and potable water. And the person that's
 2 constantly looking over our shoulders for that
 3 purpose is DOH, Department of Health. And they
 4 tell us what we need to do in order to make sure
 5 that the water is at all times safe and potable
 6 and whether that's what we have to do in terms of
 7 lead service replacements, main replacements,
 8 unidirectional flushing, sampling, whatever it
 9 might be, all of that has to be approved by DOH
 10 which is why we have these consent decrees.
 11 DOH, as you probably know, acts as the state
 12 agency for the EPA. These rules, the lead and
 13 copper rule, for example, are established by the
 14 EPA. And then the DOH is the state agency that
 15 carries them out and enforces them. And then
 16 when we enter into consent decrees with them,
 17 that's why we end up here for the funding in
 18 order to carry that work out. So that's a good
 19 part of the case and that's why we're here. So
 20 thank you for the time.
 21 MR. SPINELLI: I'm sorry. Go ahead,
 22 John.
 23 MR. BELL: I have a couple of additional
 24 questions. Does the City of Providence have a
 25 paving program? Is that impacting your program

1 at all?
 2 MR. GIASSON: Yeah, we -- we had to
 3 relook at the mains that we wanted to replace as
 4 part of that paving program. Once they pave,
 5 there's a five-year moratorium. But I -- I'm
 6 not -- I have to check on it, but I'm sure that
 7 whatever we had to do we either did this year or
 8 we're going to do next year to kind of keep ahead
 9 of that.
 10 MR. BELL: So you'll get to it before
 11 they pave over the road?
 12 MR. GIASSON: If we determine it's a
 13 high priority main in that street, we'll replace.
 14 MR. BELL: Do you have to contribute to
 15 the paving program? I mean, you tear up a road
 16 and then they're going to pave it next year?
 17 MR. GIASSON: We would have to pay
 18 whatever we would normally pay.
 19 MR. SPINELLI: We coordinate very
 20 closely with the City on the paving program. And
 21 I would like to make just one final comment, if I
 22 may, very briefly. Number 1, I want to thank the
 23 Commission, the Division, everybody that's here
 24 today because we really do welcome the
 25 opportunity to educate, and I use that word

1 program's in Vista. They kind of have a software
 2 you can -- they'll coordinate -- they'll deal
 3 with the gas company trying to get what
 4 they're -- they'll do work in the street and
 5 we'll have our program and they'll kind of
 6 coordinate any conflicts, but it has been -- it's
 7 tricky.
 8 MR. ROBERTI: So you have had some --
 9 you're both out there trying to do the same thing
 10 then?
 11 MR. GIASSON: Yeah. Yeah. Yep.
 12 MS. WILSON-FRIAS: Just a couple of
 13 things, and I've gotten sort of lost in the
 14 discovery of this case and so forth, and even
 15 remembering what was in the testimony. I know
 16 that a copy of that consent decree came in
 17 somewhere outside the rate case. Was there a
 18 copy of the consent decree filed with the rate
 19 case?
 20 MS. BONDAREVSKIS: We'll have to get
 21 back to him.
 22 MS. WILSON-FRIAS: Will you please
 23 provide a copy?
 24 MR. McELROY: We will. Do you want both
 25 the '12 and the '13 or the just the '13?

1 advisedly, but interested stakeholders because we
 2 think it's important.
 3 And the one final comment I want to make --
 4 and this by no means is an effort to pat
 5 ourselves on the back, it isn't, but the easiest
 6 thing for us to do and we wouldn't be here
 7 today -- we could have just continued with
 8 replacing 7 percent of partial lead service lines
 9 every year at a cost of about \$8,000,000 a year,
 10 but we honestly did not feel that was a wise
 11 expenditure of rate payer money based on the
 12 evidence from the EPA, et cetera, et cetera.
 13 And we understand your concern and why you
 14 needed an explanation of why our focus has
 15 changed from A to B and how we got there and we
 16 hope that we helped explain that.
 17 MR. ROBERTI: Just a question. When you
 18 talked about coordination with the City paving
 19 plans, what's your experience with dealing with
 20 the gas company? Are they out there, too, doing
 21 the same thing as you?
 22 MR. GIASSON: Yeah. Yeah. It's been
 23 frustrating to kind of coordinate with them as
 24 far as where they're working, where we're
 25 working. We're trying to get -- I think the

1 MS. WILSON-FRIAS: Both.
 2 MR. McELROY: I'll make sure they're
 3 filed if they haven't already been.
 4 MS. WILSON-FRIAS: Okay. Then where the
 5 main replacements are going to include the lead
 6 replacements, I believe Gregg said that about 300
 7 to 500 lead services would be replaced this year?
 8 MR. GIASSON: This year, yeah.
 9 MS. WILSON-FRIAS: Could you also give
 10 an estimate of how many will be replaced annually
 11 under the proposal.
 12 MR. GIASSON: Yeah, it will be an
 13 estimate. We -- it will depend on the streets
 14 that we do next year, but we'll give you an
 15 estimate.
 16 MR. McELROY: One thing I -- I'm not
 17 trying to do Gregg's job, but not all -- and
 18 correct me if I'm wrong, but every time we
 19 replace a main, not all of the service lines are
 20 lead; is that correct?
 21 MR. GIASSON: You have some copper and
 22 some lead.
 23 MR. McELROY: So we may be replacing a
 24 main that is not connected to a lead service pipe
 25 and, of course, the main would get replaced but

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1 we wouldn't replace the pipe because it's not
 2 lead. On the other hand, if we run into a lead
 3 service that is connected to a main that's being
 4 replaced, our side of it will be replaced, am I
 5 right?
 6 MR. GIASSON: Uh-huh.
 7 MS. WILSON-FRIAS: And then on Slide 19,
 8 you talk about returning to pre-2005 treatment
 9 targets for a pH of 10.2. And you said you've
 10 been doing a lot of testing and sounds like the
 11 total results will be available by early next
 12 year. Have you had to make any sort of interim
 13 reports to the Department of Health with regard
 14 to your --
 15 MR. GIASSON: Yeah, we provide monthly
 16 reports.
 17 MS. WILSON-FRIAS: Could we get copies
 18 of those?
 19 MR. GIASSON: Sure. Yeah.
 20 MR. McELROY: From when?
 21 MS. WILSON-FRIAS: From March or
 22 February, I guess.
 23 MR. GIASSON: Yeah, I think we started
 24 the post -- to post the treatment change. We can
 25 get you all those.

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1 MR. McELROY: So all the post treatment
 2 changes reports?
 3 MS. WILSON-FRIAS: Yeah, from
 4 February/March, that time frame we talked about.
 5 Now, with regard to the -- where you talk about
 6 the negotiation of the amount of money that would
 7 be spent each year, I believe you said that
 8 that's not all new money. That's in addition to
 9 what's already included in rates?
 10 MR. GIASSON: Yeah. It was a part of
 11 our approved IFR plan.
 12 MS. WILSON-FRIAS: Okay. What was the
 13 basis for feeling comfortable negotiating the
 14 amount outside of sort of the Commission process,
 15 the rate process?
 16 MR. SPINELLI: Well, we -- first of all,
 17 I'll attempt to answer that. The consent decree
 18 and the Health Department is aware of this,
 19 that's contingent on that amount being approved
 20 by the PUC. If it's not approved, then we're not
 21 going to be able to meet that requirement.
 22 And what we did, as Gregg alluded to, I
 23 believe the additional money we're asking for in
 24 order to ramp up the replacement of online cast
 25 iron mains is 6,000,000, so in our mind we wanted

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1 to have the increment large enough to really make
 2 a difference, so we could really attack this
 3 program. I mean, with 550 miles, you know, if
 4 you did, you know, five miles a year, you know,
 5 we'd be through in 100 years, so we need to be
 6 more focused than that. And then always in the
 7 back of our mind we wanted to have a rate
 8 increase that was, you know, reasonable.
 9 And so it was a combination of what we
 10 thought we could handle and that would be
 11 consistent with the amount that we included in
 12 this rate request.
 13 MS. WILSON-FRIAS: Now, did Providence
 14 Water also make some sort of payment to
 15 Department of Health as part of this consent
 16 agreement?
 17 MR. SPINELLI: Yes, we -- it's in -- is
 18 it in the --
 19 MR. McELROY: No. No.
 20 MR. SPINELLI: Anyway, in the year -- in
 21 the first consent decree, the 2012, we made a
 22 \$500,000 payment to the State of Rhode Island
 23 lead abatement program. The following year that
 24 was reduced to 250. And I believe the rationale
 25 behind it was that the lead -- the Health

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1 Department believed that there is a relatively
 2 small amount of exposure for young children, et
 3 cetera, from lead and water.
 4 Obviously, the main -- the main thrust is
 5 lead paint, not water, but they did require that
 6 payment and we felt that we would have preferred
 7 not to -- you know, to be honest, we would have
 8 preferred not to make that payment, perhaps, but
 9 we felt that was a lot better than spending
 10 \$8,000,000 on a program that you had very
 11 questionable benefits for.
 12 MR. ROBERTI: What is that used for, the
 13 money? Was it in the form of a --
 14 MR. SPINELLI: The Rhode Island Health
 15 Department. It's specifically for their lead
 16 abatement program and I believe they focus on
 17 young, vulnerable, aged population.
 18 I just want to add one quick thing. We did a
 19 special outreach, we did quite a bit of research,
 20 and tried to identify vulnerable age children
 21 like young kids. So we tried to identify as many
 22 daycare centers as we could, for example. And
 23 it's tough because they switch around, but we
 24 sent a specialized letter to each one of them and
 25 we did that, what, a couple months ago or -- and

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1 basically we said, "according to our records you
 2 have a lead service" and, again, we reminded them
 3 of the risk to young kids with lead and we
 4 offered to accommodate them if they wanted to do
 5 anything with their lead service. So we did that
 6 outreach program also.
 7 MS. WILSON-FRIAS: Okay. From what
 8 fund -- or where did the 500,000 and the 250,000
 9 come from?
 10 MR. SPINELLI: They came out of our
 11 infrastructure replacement plan.
 12 MR. ROBERTI: Just a question on that.
 13 The role of the IFR, DOH has two functions here.
 14 One is if there's federally delegated authority
 15 and you reach a consent decree, my understanding
 16 is that if they required \$55,000,000 a year
 17 there's nothing the Commission can do about it.
 18 But then there's the IFR and I believe there was
 19 a Supreme Court case that Mr. Wold over there
 20 who's making the funny faces, had argued before
 21 the Supreme Court about the role of this
 22 Commission and its discretion over spending and
 23 rate levels if it's an IFR matter. Can you give
 24 any clarification on that? Am I right when I say
 25 that?

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1 process of the plan being approved, the Public
 2 Utilities Commission has the opportunity to weigh
 3 in on those. And when that plan is approved, it
 4 then has what I'll call a presumptive correctness
 5 to it.
 6 And so that if we come to the Commission with
 7 a spending request that is pursuant to the
 8 approved plan, then the Commission has an
 9 obligation, provided it finds that it's just and
 10 reasonable and in the best interest of rate
 11 payers, to fund it. The Commission does have
 12 some discretion if it does find that it's not in
 13 the best interest of rate payers to decline to
 14 fund it entirely.
 15 That's my understanding of the law in that
 16 area.
 17 MR. ROBERTI: Thank you.
 18 MR. DeSIMONE: What determines whether a
 19 main is going to be replaced as opposed to being
 20 cleaned and relined?
 21 MR. GIASSON: If we -- we do -- we can
 22 do a condition assessment based on if you do a --
 23 you can do a flow test. You can cut a coupon
 24 (sic) out of that main. There are techniques you
 25 can do to determine if that cast iron main is in

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1 MR. McELROY: I think you are correct,
 2 Mr. Commissioner. The first thing I'd like to
 3 point out is I'm glad you brought up the
 4 \$55,000,000 issue on Slide 25. And that's
 5 because when we first negotiated, -- and, Boyce,
 6 step in and correct me if I'm wrong, but when we
 7 first negotiated with DOH on this, they wanted
 8 us, as Gregg said, to do it all in ten years.
 9 And the cost of doing 550 miles at a dollar a
 10 mile in ten years would have been \$55,000,000 a
 11 year. That would have -- that one issue alone
 12 would have doubled Providence Water's rates,
 13 doubled it.
 14 So Boyce and the other members of the team
 15 went in and negotiated the reduction so that in
 16 2014 the main rehabilitation commitment is
 17 \$12,000,000 a year, a significant difference.
 18 Still going to get the work done, but in a more
 19 reasonable fashion. That is done pursuant to the
 20 decree with DOH which is pursuant to federal
 21 authority and I think that's binding.
 22 With regard to the IFR, we all know there is
 23 a statute and the statute says that the IFR
 24 process is one where we submit regular plans and
 25 update those plans to DOH. As part of that

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1 good condition. Or if we have to replace a valve
 2 on that line, we'll cut it out, we'll take a look
 3 at what kind of condition that cast iron is in.
 4 Essentially, if we -- if we feel like the cast
 5 iron's in good condition, it's a candidate for
 6 cleaning and lining.
 7 MR. SPINELLI: It also -- I'm sorry.
 8 And correct me if I'm wrong, but, Paul, excuse
 9 me, I'm saying this because I heard you say it
 10 one time, another determining factor is if you
 11 have a -- the main, how many lead services are on
 12 that main. Because if you clean and line and
 13 there's a lot of lead services that you would
 14 have to replace, there's so much work involved it
 15 removes the cost advantage of cleaning and lining
 16 in that particular -- can you explain that
 17 better?
 18 MR. GADOURY: Yeah. The main savings in
 19 cleaning and lining pipe versus replacement is in
 20 the excavation and the pavement restoration
 21 costs. And when you realign a pipe, as Gregg
 22 pointed out, you would excavate a pit at one end
 23 of the section you're going to realign and a pit
 24 at the other end and you could cover, you know, a
 25 fair distance between those pits. So you're

1 doing no excavation in between, no pavement
 2 disturbance. So that's where the savings lies.
 3 But if you've got a street that's got a lot
 4 of lead services on that main, and when we do a
 5 rehabilitative main we do want to replace lead
 6 services in the process. So now if you've got a
 7 lot of lead services at dense concentration,
 8 you're going to be doing so much excavation of
 9 that street and then subsequent patching that's
 10 required that says savings, that excavation and
 11 pavement restoration savings goes away. So in
 12 that case, it really doesn't make sense to
 13 reline.
 14 Another factor in relining is, you know, the
 15 configuration of the pipe, long straight lengths
 16 of pipe are conducive to relining. If you've got
 17 pipes with a lot of bends in them and whatnot,
 18 they're not going to conducive to relining. It's
 19 tough to draw that pig through there. It's tough
 20 to put the cement relining equipment through it.
 21 So those are other criteria used in
 22 determining --
 23 MR. McELROY: Could I also ask, if we
 24 get customer complaints in a particular area of a
 25 main of red water, are we trying to prioritize

1 obstruction due to the reduced internal diameter
 2 due to tuberculation and/or, you know, rusty
 3 water problems associated with it, but --
 4 MS. WILSON-FRIAS: Back to the -- those
 5 DOH reports that we asked for earlier, is there a
 6 narrative on those or are they just a bunch of
 7 numbers that go up?
 8 MR. GIASSON: There's a narrative.
 9 MS. WILSON-FRIAS: Okay. Make sure we
 10 know what we're getting. And could you just
 11 provide a definitive response as to what happens
 12 to all of the stuff that gets cleaned out of the
 13 main?
 14 MR. GIASSON: Yeah.
 15 MS. WILSON-FRIAS: And could we get the
 16 most recent accounting of the level of funding in
 17 the IFR account, as far as underfunding and that
 18 sort of thing, since we know that's the last
 19 account to get funded?
 20 MR. McELROY: We will do that. Gregg,
 21 could you tell me what "pig" stands for.
 22 MR. GIASSON: It's a term for the
 23 actual -- it's pretty much like a solid ball that
 24 they -- when they pull through the pipe, it
 25 technically -- the term they call it is a pig.

1 either flushing those mains or replacing those
 2 mains?
 3 MR. GIASSON: Yeah, prioritize it as far
 4 as flushing. And then it will also -- we keep a
 5 scoring system as far as how we rate pipes and
 6 that will -- if it has water quality complaints,
 7 it will go -- it will give it a higher score for
 8 replacement or for rehabilitation.
 9 MR. ROBERTI: What's the average age of
 10 a main that can be relined? Is there a -- and I
 11 guess in answering that, is there a point at
 12 which a pipe is so old that you just don't want
 13 to deal with it or --
 14 MR. GADOURY: You could, in actuality --
 15 the earliest pipes in our system date back to
 16 1871 and you could conceivably reline a pipe that
 17 was installed in 1871 because, as Gregg pointed
 18 out, structurally a lot of those pipes are in
 19 great shape. They've got very thick pipe walls.
 20 MR. ROBERTI: And those are the cast
 21 iron ones.
 22 MR. GADOURY: Those are the cast iron.
 23 So the problem with those pipes is generally not
 24 a structural problem. It's not -- don't want to
 25 say structural failures. It's, you know, flow

1 MR. McELROY: It's not an acronym,
 2 P-I-G, standing for something?
 3 MR. GIASSON: I don't think so. I'd
 4 have to look that up for you. I don't know.
 5 MR. GADOURY: It also has scraper blades
 6 on it that helps us scrape through the stuff.
 7 It's usually pulled through the pipe with a
 8 cable.
 9 MR. DeSIMONE: Do you have an idea in
 10 terms of the breakdown as to what percentage of
 11 the mains or pipes will need to be replaced
 12 versus cleaned and relined?
 13 MR. GIASSON: Not right now, no. I
 14 mean, our program that we developed -- we've been
 15 developing that's kind of a living, breathing
 16 document, and as we go along we'll try to develop
 17 that number. I mean, we're going to take -- each
 18 year we'll look at what we're going to replace
 19 for mains and we'll decide based on the condition
 20 assessment and any data we have from the UDF
 21 program whether or not we'll replace them or
 22 reline them.
 23 MR. DeSIMONE: Thank you.
 24 MR. MANCINI: Bill Mancini. I just have
 25 a quick question on the cast iron mains. What

1 conditions of the main or pipes meaning like the
2 12-inch that would come down, like, a main street
3 rather than the six and eight inches that are on
4 the side streets that you're replacing now which
5 we know are very tuberculated? When you cut into
6 that 12-inch, how does that look or how has it
7 been looking? Is it relatively clean because
8 there's more flow in that main line or is it --
9 MR. GIASSON: I would say I don't have
10 exact data, but anecdotally I would say that
11 because it has more flow in it, it generally has
12 less tuberculation in it.
13 MR. MANCINI: They would have less
14 priority than the six- and eight-inch lines.
15 MR. GADOURY: The other thing, Al, if I
16 could just add, is if you have two inches of
17 tuberculation buildup on a pipe -- if you've got
18 two inches of tuberculation buildup on walls of a
19 six-inch pipe, you've got a two-inch internal
20 diameter --
21 THE REPORTER: Start over.
22 MR. GADOURY: Okay. If you've got two
23 inches on a -- buildup on the wall of a six-inch
24 pipe, you're left with a two-inch internal
25 diameter. If you've got two inches of buildup on

1 MR. ROBERTI: John Morano was the acting
2 administrator.
3 MR. DeSIMONE: Any other questions?
4 Anything further?
5 MR. McELROY: Nothing further,
6 Mr. Commissioner. Thank you.
7 MR. DeSIMONE: Okay. Thank you.
8 THE REPORTER: Did you say you want a
9 copy?
10 MR. McELROY: Yes, I do. And I like the
11 minis, the four on a page. The big one is a
12 waste of time. Don't even send it to me. Okay.
13 And can you send it electronically as well?
14 THE REPORTER: I sure can.
15 MS. WILSON-FRIAS: And then the
16 Commission gets an original and a mini.
17 (Deposition adjourned at 11:18 a.m.)
18 * * * * *
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1 the wall of an eight-inch pipe, you're left with
2 a four-inch internal diameter. Whereas, if
3 you've got two inches of buildup on a 12-inch
4 pipe, you're left with an eight-inch diameter.
5 So the larger the pipe gets the less hydraulic
6 impact that that buildup has, not that it doesn't
7 have any, you know, so that's why you -- you see
8 a somewhat more dramatic impact on small pipes.
9 And I've seen buildups on -- not that we have
10 four-inch pipes in our systems, but in other
11 systems where somebody has a four-inch cast iron
12 pipe and virtually you could have a half inch
13 flow conduit left in the middle of that pipe
14 basically because of tuberculation buildup.
15 MR. DeSIMONE: Anybody else have any
16 questions?
17 MR. McELROY: I just have one question.
18 Joseph Keogh representing Bristol County Water
19 Authority. Did you say that Providence filed its
20 first IFR plan with DOH in 1996, so it was the
21 first one?
22 MR. GIASSON: I didn't.
23 MR. ROBERTI: I remember that.
24 MR. McELROY: I remember when the law
25 was passed. That's why --

1
2
3 C E R T I F I C A T E
4
5
6 I, Devin J. Baccari, hereby certify that the
7 egoing is a true, accurate, and complete transcript
8 my notes taken at the above entitled hearing.
9
10 WITNESS WHEREOF, I have hereunto set my hand this
11 d day of October, 2013.
12
13
14
15
16
17 -----
18 DEVIN J. BACCARI, NOTARY PUBLIC
19 My commission expires 8/17/14
20
21 : October 8, 2013
22 PROVIDENCE WATER SUPPLY BOARD
23
24
25

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