

1 STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

2 NARRAGANSETT BAY COMMISSION

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IN RE: BOARD OF COMMISSIONERS MEETING

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11 DATE: January 6, 2015

TIME: 9:00 A.M.

12 PLACE: Narragansett Bay Commission

Corporate Office Building

13 One Service Road

Providence, RI 02905

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17 COMMISSIONERS:

18 Vincent Mesoletta, Chairman

Raymond Marshall, Executive Director & Secretary

19 Angelo Rotella

Mario Carlino

20 John MacQueen

Joan Milas

21 Richard Worrell

Robert Andrade

22 Paul Lemont

Alan Nathan

23 Michelle DeRoche

James Bennett

24 Jonathan Farnum

1 OTHER ATTENDEES:

2 Ames B. Colt, RIBRWCT/Governor's Office

Kathryn Kelly, NBC

3 Paul Nordstrom, NBC

Pamela Reitsma, NBC

4 Christine Comeau, NBC

Eliza Moore, NBC

5 Nick Anderson, MWH

John Zuba, NBC

6 Harold Gadon, CAC

Richard Bernier, NBC

7 Jamie Samons, NBC

Jennifer Harrington, NBC

8 Joanne Maceroni, NBC

Sean Searles, MWH

9 George Palmisciano, MWH

Laurie Horridge, NBC

10 Matt Travers, MWH

Tom Brueckner, MWH

11 Deborah Samons, MWH

Karen Musumeci, NBC

12 Rich Raiche, MWH

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1 (MEETING CONCLUDED AT 9:15 A.M.)

2 CHAIRMAN MESOLLELA: All right, Rich,

3 are we about ready to go? So this is not a

4 formal commission meeting. This is a workshop.

5 I don't believe I have to call a meeting to

6 order. So, we're here this morning to review

7 CSO Phase II hopefully, not a protracted amount

8 of time, but enough time to answer all the

9 questions regarding the CSO Phase III program.

10 As you know, at the last board meeting -- excuse

11 my back everyone.

12 At the last board meeting, a number

13 of questions started to surface with regard to

14 some of the specific issues about the CSO Phase

15 III program. It became a little lengthy. So

16 not to rush you through, we decided, obviously,

17 to have this workshop to get the benefit of

18 everyone's thoughts, get some of the particulars

19 of the project, and hopefully later on this

20 month, or next month we'll come back with some

21 recommendations for the board to consider.

22 But, so today's a workshop. It's

23 informal. Raise all of the questions you need

24 to raise and all the questions need to be asked,
25 and get a better sense of what this project's

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1 about. So whenever you guys are ready.

2 MR. BREUCKNER: Well, good morning.

3 And the purposes of the workshop, really, is to
4 help you guys understand more clearly what it is
5 we're trying to do, and give you some more
6 background information and answer your
7 questions. The way we're going to present the
8 presentation this morning. I will go through
9 some background information. I have a few
10 slides that I want to go through.

11 Just so that you understand how we
12 got where we are today. Rich will go through
13 the alternatives which we presented last time.
14 Talk also about affordability and impact on
15 rates. We also have some presentation that we
16 didn't have the last time on water quality
17 results, which had been done since the last
18 meeting.

19 And then I'll do a summary of what
20 we have presented to you. I understand that
21 this is very complicated stuff. We're going to
22 touch primarily on the general concepts. We

23 don't want to get too much into the weeds
24 because it gets too much detail, it gets
25 confusing. But we'd be happy to answer any

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1 questions that you have even if they're very
2 detailed. Rich, if you ask a question, Rich may
3 say hold off because I'm going to present a
4 slide on that. We'll get to it later. So we
5 have quite a bit of information we're
6 presenting. So we may not answer the question
7 right away, later on in the program.

8 So what I want to talk about first is
9 the background. The Clean Water Act is really
10 what is driving this whole program from 1972.
11 And what the Clean Water Act says is that we
12 need to meet water quality standards all the
13 time. That means when it's dry weather, when
14 it's wet weather. All the time. No matter what
15 size storm. Why don't we meet water quality
16 standards all the time? Well, we primarily do
17 in dry weather.

18 But wet weather you have runoff
19 from the streets that goes into the combined
20 sewer overflows, which I think you all know what
21 a combined sewer overflow is. It happens when
22 the rainwater runs into the gutter. It mixes

23 with the sewerage in the sanitary sewer, the
24 combined sewer and overflows to the river during
25 the storm. So during a storm event we have

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1 pollution, primarily bacterial pollution, coming
2 from the combined sewer overflows we have 63 in
3 the district. And we have runoff from the
4 streets and separate sewers that also contribute
5 to the bacteria pollution and other pollutants.
6 But for combined sewer overflow problems and
7 pollution problems, we're primarily talking
8 about bacteria pollution effects on shellfishing
9 and using beaches.

10 So what is the EPA approach for
11 addressing these pollutant sources? Well,
12 because you have to meet standards all the time,
13 it is not possible to do that. No matter what
14 size storm you design for, and we design, by the
15 way, for a three-month storm, which is about 1.6
16 inches of rain. You cannot meet the standards
17 all the time.

18 So if you had a one-year storm,
19 you're not going to meet the standards if you
20 design for a three-month storm. You cannot
21 spend enough money to meet the standards all the

22 time. So EPA realizes that. So what they told
23 us is to spend what you can afford to address
24 the problem. And that basically is how we got
25 to the three-month storm. When we were doing

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1 Phase I and Phase II, we realized that was a
2 storm that could give you quite a bit of benefit
3 for the money spent.

4 So EPA now is saying you need to do
5 further, which is Phase III, which is part of
6 the original program. But what we're saying is
7 we think we can't afford it. We're really
8 beginning to exceed established criteria which
9 they establish which was 2 percent of the median
10 household income. So that if the user fees
11 exceed 2 percent annually of the median
12 household income, we're at the threshold where
13 the program is no longer affordable. If it's
14 not affordable, what it means is that you can
15 extend your program out further.

16 It doesn't mean you don't have to
17 do anything. It just means that they'll give
18 you more time to do the program. And there are
19 some question about in the guidance whether the
20 2 percent median household income is applied to
21 the entire district. If it's by worse

22 community. For example, if in Providence we're
23 at 2.5 percent of established median household
24 income, does that mean that whole program is
25 unaffordable have we obtained the affordability

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1 requirements? Or is it even by census tract
2 within Providence or the census tracts where you
3 would exceed the 2 percent median household
4 income, which would mean it was unaffordable.

5 The guidance that we have is
6 basically you present to EPA your case for it
7 not being affordable. You present all this
8 information and they determine if it's
9 affordable or not. If they determine it's not
10 affordable, they'll give you longer in the
11 program.

12 In addition, we have to reevaluate
13 the program every five years. So if today we
14 said this is the alternative we're going to
15 implement. We're going to do in in phases, and
16 at the end of five years we realize that the
17 cost is more and we exceeded the affordability,
18 we may be able to change the program later on.
19 And then when we finish Phase III and we're
20 still not meeting water quality standards what

21 the EPA says.

22 Well now you can afford to do more
23 because you retired some of your debt. You now
24 have affordability to do more work. We're going
25 to require you to spend more money because you

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1 still haven't attained water quality standards
2 for every storm. So essentially, the program is
3 never ending. It goes on and on until something
4 changes, either the act or water quality
5 standards are met, which is unlikely we will do
6 that all the time.

7 Next one. So I just want to go
8 over quickly the -- where we are today. This is
9 Phase III. And these are the outfalls that need
10 to be addressed in Phase III. This is Pawtucket
11 here. Providence is down here. And this is
12 Central Falls. We've color coded the outfalls
13 by size. And there's a very large outfall over
14 here, 220 on the Moshassuck River which greatly
15 effects water quality of the Moshassuck. There
16 is a very big outfall here near the Bucklin
17 Point Plant, 218.

18 This big one up here at 205. So we
19 have tailored the alternatives that we're
20 looking at to try to address these three big

21 overflows. Because as you can see up in the
22 corner here, if we address these overflows here,
23 we address 75 percent of the volume. So we've
24 looked at the volumes from these overflows and
25 the alternatives and tailored the alternatives

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1 to try and address these. As I mentioned, this
2 is Phase III. Phase I basically covered the
3 overflows that were in the City of Providence
4 further south on the Providence River. That
5 consisted of a main spine tunnel which has 62
6 million gallon capacity. It's been in service
7 since 2008, and has worked very well.

8 Phase II really was completed last
9 month. Consist of two interceptors; one along
10 the Moshassuck River and one along the Seekonk
11 River -- I'm sorry, the Woonasquatucket River
12 and the Seekonk River. And that picks up all
13 the overflows in those rivers and drops it into
14 the tunnel for treatment. So that should be
15 starting in operation this month. So Phase I
16 and II are done.

17 Now this is a program that we have
18 committed to EPA through our long term control
19 plan. It was completed in 1997. This is the

20 third phase. And now we're reevaluating it.

21 So, Rich will talk about the alternatives.

22 MR. RAICHE: Okay. So we have four
23 alternatives, and we discussed these at the
24 previous meeting, so this will give you an
25 overview to refresh everyone's memory of what

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1 the four alternatives are that we're talking
2 about. One is what we're calling the baseline.
3 That's what the current plan is. Physically it
4 consists of a tunnel and interceptors to the
5 north and to the west and some sewer separation
6 in the City of Providence.

7 In terms, you know, if this is the
8 alternative selected this would be the easiest
9 thing for DEM AND EPA to approve because
10 essentially it's already an approved plan. It
11 addresses all of the outfalls to the level that
12 they have previously agreed. This essentially
13 captures 57 million gallons of CSO. And it has
14 us put together an alternative.

15 One, it's done as a single phase.
16 So essentially, constructing all of those things
17 as fast as you physically can construct that
18 much stuff in these cities. So by 2025, that
19 single phase program would be overall 57 million

20 gallons would be captured and the spend would be
21 about \$750 million dollars.

22 Alternative 2 takes that original
23 plan and does two things. One, it augments some
24 of the engineering of it to sort of update it,
25 give us a slightly different engineering plan.

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1 But two and more importantly, it takes that
2 single phase and splits it up. What we're
3 calling it right now is four phases. It could
4 be three it could be five. It's sort of a
5 negotiation point with EPA. But what it
6 essentially says is that we know that there are
7 a whole bunch of other initiatives going on.

8 There's a stormwater initiative,
9 stormwater regionalization initiative. There's
10 flooding problems. We know that a lot of these
11 cities have a lot of problems with their
12 collection systems that they don't fully
13 appreciate that will all cost money.

14 And at some point those other
15 programs will advance. So the concept behind
16 Alternative 2 is to segment the CSO program into
17 sub-phases, give NBC and the region the cities
18 points at which we can go back to DEM and EPA

19 and reevaluate.
20 Say look, maybe now affordability
21 is different. Maybe now some collection system
22 things are more important. Maybe now some
23 stormwater things are more important. So it
24 gives us some stopping points to reevaluate.
25 For Alternative 2, the way the sub-phases are

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1 put together. Is one that we know would be easy
2 to permit. It puts up front the tunnel which
3 connects those two big red dots that Tom pointed
4 out. It gets our two biggest outfalls out of
5 the way. It also gives us the most bang for the
6 buck and captures the largest volume right out
7 at the beginning, and then after that subsequent
8 phases pick up the smaller volumes.

9 In terms of sequencing, we capture
10 with this plan about 70 percent of the overall
11 volume of the 41 million gallons of the 57 by
12 2023. Of course, you also incur the large cost
13 associated with the tunnel in the early years,
14 and then steps out the additional spend and the
15 additional captures in the subsequent phases in
16 subsequent years.

17 Alternative 3 does a similar thing,
18 but turns it upside down. It takes a lot of

19 those same components but identifies the fact
20 that the tunnel is the single-most expensive
21 component of it and perhaps for affordability
22 reasons that needs to be pushed out. So it
23 changes the sequencing to sweeten the deal for
24 DEM and EPA. It also adds a couple of interim
25 water quality projects. Lower costs that would

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1 improve water quality, but wouldn't be the
2 ultimate solution for those. So it includes
3 disinfection at 220 and 218, both of those
4 things would eventually go off line when the
5 tunnel is built.

6 So in terms of benefit, the sort
7 of pink shaded area here, that's CSO that gets
8 treated. It's not fully captured. It's not
9 fully compliant with what EPA and DEM want. But
10 we know that it provides an interim water
11 quality benefit. Then the big chunk happens in
12 2032. And the spend is relatively low and in
13 the initial years and then once the tunnel gets
14 built, jumps up. And then there's some out of
15 additional work off the end of it, because
16 physically there's some components that can't be
17 built until after the tunnel is built.

18 Alternative 4 which is the no
19 tunnel alternative, entirely changes the mindset
20 of what the program would be. And this is
21 entirely on an affordability mindset. That if
22 the tunnel is entirely unaffordable in any sort
23 of short term, or, you know, two decade sort of
24 time frame, then what can be done? So
25 Alternative 4. The first thing it does is

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1 create and interceptor from 218, the largest
2 single outfall brings it down to the Bucklin
3 Point Treatment Plant and builds a storage tank
4 that also provides treatment. Then extends that
5 interceptor north trying to pick up as much
6 volume as possible to go through that storage
7 treatment facility, and also adds in the other
8 components that are in the other alternatives.

9 In terms of spend, the spend is not
10 quite half, but about \$450 million dollars as
11 opposed to closer to the 800 million-dollar
12 range. But in terms of actual capture of flow,
13 it's significantly less, but it does provide a
14 significant amount of treatment. So
15 philosophically, it's a different animal.

16 So what would EPA be looking at if
17 we proceed with any one of these alternatives?

18 So what it does to the rates, and this is --
19 there's one new line since we looked at this
20 about a month ago. The red line here is the
21 rate projections without Phase III considered at
22 all. There's a bunch of stuff that has to
23 happen. The upgrades to the treatment plant,
24 maintenance on the interceptors. There's some
25 residual Phase II costs to consider. So taking

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1 Phase III entirely out of the picture. That's
2 what the red line is.

3 COMMISSIONER MILAS: Excuse me, can
4 I ask a question. Does EPA look at the state as
5 a whole, or are they just looking at NBC
6 communities. Because what happens to those
7 other communities? So when you present to EPA,
8 you're just talking about our affected, but are
9 they looking at the state cumulatively, and
10 going the state as a whole cannot afford to do
11 this? Are they evaluating? What's happening in
12 other communities with their water? And so,
13 unless the whole state is getting cleaned up, it
14 seems unaffordable. What do they look at?

15 MR. BRUECKNER: What they do really
16 is that they look at, first of all, what NBC

17 costs are, what we have to spend money on. Also
18 they will give consideration to what the
19 community within our district have to spend our
20 money on; for example, Providence, Pawtucket,
21 Central Falls all have stormwater issues, as
22 well. So they're going to have to spend money
23 on stormwater. We'll present this a little bit
24 later on, but it does have an impact on
25 affordability, that is the cost that the local

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1 communities within our district will also have
2 to incur that are related to water quality.
3 In addition, the affordability
4 analysis can also take into account unemployment
5 in the state, the state's bond ratings, the
6 community's bond ratings. So there are some
7 components statewide that are looked at, that is
8 in terms of what is the economy like in the
9 state that would influence the decision about
10 affordability. But primarily, what they're
11 looking at is median household income within the
12 district, within communities within the
13 district, census tracts and other costs that
14 local communities will incur to meet water
15 quality, particularly stormwater. And the other
16 big one we mentioned before is for Pawtucket

17 Providence, Central Falls, infrastructure of
18 their own sewer system that obviously is going
19 to need, we think quite a bit of money put into
20 it because it's been neglected for so long. So
21 that's another component. We'll talk about a
22 little later on.

23 COMMISSIONER NATHAN: I have a
24 question. In an overall way is the issue here
25 because around 1900 these cities had a combined

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1 system of runoff of sewers and street. So that
2 an answer to Joan, as you go out from the highly
3 populated areas, do they still have combined
4 sewer or not?

5 MR. BRUECKNER: No --

6 COMMISSIONER NATHAN: So that's a
7 simpler solution for them than it is for the
8 urban's highly populated places.

9 MR. BRUECKNER: Well, that's true,
10 but it's not quite that simple. So associated
11 with the stormwater is also bacterial pollution,
12 as we mentioned. So even separate systems can
13 result in bacterial pollution that would effect
14 water quality and meeting standards.

15 So the combined sewers though are

16 mandated by the Federal Law that they are
17 required to be addressed because they contain
18 sanitary sewage and it's a sanitary sewage
19 untreated to a water way. So it's a higher
20 priority even in the law then stormwater was.
21 But when you're looking at water quality
22 standards being met, you cannot just address
23 CSOs, you also have to address stormwater
24 ultimately to meet water quality standards all
25 the time.

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1 COMMISSIONER NATHAN: Thank
2 you.

3 COMMISSIONER ROTELLA: I'm trying
4 to get back to Commissioner Milas' question, and
5 I'm not sure -- I think what she was trying to
6 get at was the Bay Commission is one sewer
7 authority in the State of Rhode Island, and
8 Rhode Island as you well know is a very small
9 compact area. There are other sewer
10 authorities. For instance, Woonsocket, that is
11 probably discharging into a river that
12 eventually gets into the rivers that we
13 discharge into.

14 If they upstream are not required
15 to do the same thing we do, then the work that

16 we're doing is going to be vastly affected by
17 that.

18 MR. BRUECKNER: So if you look at
19 pollution sources. There are three main ones.
20 There's the treatment plants themselves. That's
21 the highest priority. Almost every community in
22 the state that has a treatment plant is meeting
23 its requirements. Usually not a source of
24 bacteria either because they treat that very
25 well. The second would be combined sewer

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1 overflows which we're addressing because we own
2 almost all of them in the state. A very high
3 source of bacteria during wet weather which is
4 really what we're trying to address. The third
5 source lower priority would be stormwater.
6 Again, lower priority would be stormwater.

7 Again, a bacterial source and some
8 other pollutants, but lower than combined
9 sewers. And that really was the priority in the
10 clean water act which they would be addressed.
11 So if you can look at the clean water act, the
12 first thing is done. The second water combined
13 sewers. We're in the last phase of that. When
14 we finish that we'll be done for a while.

15 And the next one on the horizon is
16 stormwater, which I think we talked about a
17 little bit. And the communities, as you may be
18 aware, Providence certainly is spearheading this
19 regional stormwater district concept to address
20 that next priority for pollution control. Which
21 again, very big dollars to do that. And you're
22 really reaching the point now diminishing
23 returns as you get further down the list, fairly
24 efficient treatment plants runoff is second from
25 the CSOs. You can get some improvement, but the

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1 cost for CSOs compared to treatment plants is
2 much, much higher per dollar, per gallon. And
3 then stormwater even higher too to get those
4 pollutants out.

5 MR. RAICHE: So, in terms of other
6 entities meeting their obligations, it's
7 separate from this engagement, but EPA and DEM
8 are engaging with those entities separately. So
9 Woonsocket probably is the biggest upstream
10 target that also effects directly our same
11 service area.

12 But all of EPA and DEM, they
13 recently concluded their long-term control plan
14 for Newport, as well, and Newport is working on

15 their CSO and FSO problems currently. So
16 they're separate, but because they currently are
17 paid for by separate entities, the City of
18 Woonsocket and Newport as opposed to the NBC
19 district. They look at them separately although
20 simultaneously.

21 So in terms of what these different
22 alternatives do to average bills. The lowest
23 one -- I apologize. I have very shaky hands so
24 it's hard to point this thing. If phase III
25 were taken entirely out of the equation and just

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1 the other commitments, the treatment plant and
2 maintenance, projected rates are to increase to
3 the 520 dollar level within our planning.
4 Alternative 4, which is lowest cost Alternative,
5 is in the neighborhood of \$640.00.

6 Alternatives 2 and 3 essentially
7 wind up at the same end point. It just has a
8 different timing of when the big rate increase
9 happens. Both of them wind up in the 770 dollar
10 range.

11 Alternative 1 where there is a very
12 large investment right up front, and therefore,
13 a large incurrence of debt all at the same time

14 increases bills to the 820 dollar range. These
15 are all per annum. So if you're very good
16 dividing by twelve, you can figure out what the
17 monthly bill is. This is a review from the
18 previous presentation. These are the rate
19 increases as percents to sustain the programs.

20 Now, this is the graph where we
21 really start the discussion of how EPA will view
22 these. In order to do an alternative plan, the
23 plan has to be demonstrated that it is
24 unaffordable. The unaffordability as Tom
25 mentioned is defined as 2 percent. Now, if you

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1 take -- now this has all of the NBC expenses
2 including the new Phase III alternative. And
3 this looks districtwide. So it's median
4 household's income for all of the communities in
5 the district.

6 So right off the back that all of
7 these alternatives are below the 2 percent
8 threshold. So if EPA just strictly looks at
9 this from the traditional point of view with
10 their 1997 policy, which up until about a month
11 ago -- they would simply say, yep, it's
12 affordable. You go do Phase III as it's
13 defined.

14 But there's some refined guidance,
15 as Tom mentioned, that EPA will consider other
16 ways of looking at the affordability. Whether
17 it be a member community or a group of census
18 tracts. So what we've done is look at what the
19 affordability is at these more specific
20 pictures. And the affordability picture for
21 Alternative 1 impacts a lot of the census
22 districts in Providence, Pawtucket and Central
23 Falls. Same is true for Alternative 2.
24 Alternative 3 has some improvements over that.
25 If we want to come back, we can come back to

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1 what the actual numerics are on these. But we
2 have the breakdown of what the number of census
3 tracts are, et cetera. One of the more
4 compelling cases that could be put together to
5 argue affordability is if you look at the
6 largest member of the community, which also
7 happens to be one of the one -- the lower median
8 household income, second lowest.
9 Central Falls has the lowest
10 followed by Providence, and third, Pawtucket.
11 And the outlying towns are significantly higher
12 on that chart. If you look at the NBC costs for

13 the City of Providence, what you see is that
14 Alternative 1 does cross that 2 percent
15 threshold. It's a fairly compelling case. It
16 would be one that I think EPA would consider.

17 So with the data that we have
18 available to give to EPA for reconsideration,
19 the case that Alternative 1 is unaffordable is
20 fairly solid. All the other alternatives fall
21 below that 2 percent threshold. So on the face
22 of it, Alternative 2 is affordable. There's the
23 case to go with Alternative 2 because of
24 affordability here, and too because of the
25 technical merits of it. We've got some

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1 enhancements to the system, plus it gives us
2 these break points where other items can be
3 considered. The lateral sewers in the member
4 communities, stormwater -- it's a compelling
5 case to EPA for adoption.

6 COMMISSIONER WORRELL: I'm sorry to
7 interrupt. But I can understand why the curves
8 are all going up, but I'm not quite sure I
9 understand why they're all going down.

10 MR. RAICHE: At the tail end, the
11 reason they start all going down essentially at
12 the maximum spend -- well, with the exception of

13 Phase III which has additional debt that needs
14 to be incurred from the stub tunnel at the end,
15 your majority of your capital spend on all these
16 alternatives end in the 2030 time frame.

17 And the way that EPA calculates
18 this affordability, all of the capital costs are
19 brought into present dollars. So all the
20 capital costs associated with this are brought
21 into 2015 dollars.

22 MHI on a year-to-year basis is
23 indexed to an assumed inflation rates. So your
24 affordability goes up this year.

25 COMMISSIONER WORRELL: Which makes

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1 it look good on their side, on EPA's side of the
2 table makes it --

3 MR. RAICHE: Correct. The capital
4 costs are fixed and here we're increasing MHI
5 index to inflation.

6 COMMISSIONER WORRELL: Do we have
7 to go with that kind of an approach?

8 MR. RAICHE: Yeah, it's their
9 rules. This is the data that they want to see.
10 You can compile all the data to -- I could give
11 you examples of where other data has been -- or

12 may or may not have been considered. So to
13 complete the thought here, if we're looking at
14 the City of Providence and just the NBC costs,
15 Alternative 2 is affordable. Anything below
16 that EPA would generally not consider as viable
17 alternative because they'll say you need to
18 spend more.

19 Now we have discussed that there
20 are other things, water related, Clean Water Act
21 related, that will hit the same ratepayers.
22 There's a lot of deferred maintenance and
23 replacement costs for the City of Providence
24 system. There's potential stormwater projects.
25 Currently, their spend is essentially zero

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1 dollars. I mean, their current annual spend on
2 those sorts of things is \$100,000 created from
3 the general tax base. We took a look at from
4 the near standpoint at the size of the system,
5 the age of the system, what replacement costs
6 could be. And came up with what a capital
7 improvement program could look like. It's a
8 bunch of assumptions.

9 But somewhere in the range of \$10
10 million dollars per year could be what the City
11 of Providence needs to spend on the deferred

12 maintenance and stormwater management. So if
13 you factored those in, the -- all of the
14 alternatives cross that 2 percent threshold.

15 But this is more difficult argument to make to
16 EPA because this is based on a lot of
17 assumptions. And now the tail from this one
18 just in case you're interested has two affects
19 on it.

20 One, what -- the way we assumed that
21 Providence would fund this is \$10 million
22 dollars of debt financed for 20 years. And so
23 after year 20 out here, and I apologize for
24 shaky hands. After year 20 you start retiring
25 the original debt. So that's why we've got that

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1 falloff on all of them. It's just the way we
2 assumed the finance. Just that the picture of
3 what the affordability is. What we have new to
4 present to you are the water quality model
5 results. And I should say that, you know, we'll
6 still vet through this data a little bit more so
7 this is provisional data. It might be subject
8 to change, but it does give us a good picture.
9 Besides just what your gut tells you about
10 taking out millions of gallons of flow. So the

11 left side here is where we currently are post
12 Phase II.
13 The far right side is post Phase
14 III as defined by Alternative 1 through 3, which
15 has the tunnel. And the one in between is just
16 the tunnel completion. So we have different
17 years where that becomes into effect. So if you
18 look at the Seekonk, after -- this is day two,
19 so essentially right after the storm, we've got
20 very high concentrations well in excess of
21 standards. Now standards are a little bit odd
22 in general. Any color in blue, any shade of
23 blue is okay for contact swimming.
24 The sort of orange or rather yellow
25 and greeny yellow, that's borderline for

30

1 swimming. And anything darker than that or
2 another color would violate standards.

3 COMMISSIONER CARLINO: On the
4 right, your Phase III, you said that was
5 Alternatives 1 through 3 or 1 through 4?

6 MR. RAICHE: Correct, 1 through 3,
7 1 through 3. So these are the alternatives with
8 the tunnel and the only difference is one and --

9 COMMISSIONER ANDRADE: 1, 2, 3 on
10 them dates on the top?

11 MR. RAICHE: Correct, correct. So
12 Alternative 1 would hit this in 2025, '38 and
13 '47 for one, two, three respectively. Another
14 interesting thing here to note is that this
15 Phase 3. That captures all the CSO. So any
16 remaining water quality issues you see on that
17 far right is non CSO stuff.

18 Stormwater, illicit connections,
19 stormwater. You can blame Woonsocket and
20 Worcester if you want. It's sort of non CSO
21 stuff. The other colors to keep an eye on in
22 advanced stage in terms of water quality. Any
23 color blue is marginal for shellfishing. And
24 the light blue, the very light blue is in the
25 clear for shellfishing.

31

1 So you can see, we've got very high
2 concentrations up near the Phase 3 areas that
3 get significantly improved when the tunnel comes
4 in. And then once all of Phase III comes in,
5 we're essentially meeting contact water
6 standards throughout most of the bay.

7 Advancing to day three, you know,
8 the plume moves down bay. By the time just the
9 tunnel is complete, we're meeting contact water

10 quality standards throughout most of the bay.
11 Some areas around Field's Point are borderline.
12 And with all of Phase III we're at contact
13 standards.

14 Day five, the plume gets down to
15 Conimicut Point where shellfishing is a concern.
16 So we have borderline currently on day five.
17 It's not radically different for the tunnel
18 completion. But by the time we get all of Phase
19 III, we're in the clear for shellfishing,
20 essentially throughout the entire cycle of the
21 storm. Day 7. Under current conditions, we
22 have shellfishing water quality problems.

23 On day 7, the tunnel we're
24 borderline, almost there, depending on how the
25 data pans out with the sampling. It might be

32

1 fine. And post Phase III shellfishing is in the
2 clear all the way through. And then the
3 difference between current conditions Phase II
4 and post tunnel, it's probably around day 8.
5 We're completely in the clear post tunnel while
6 we still have borderline conditions through day
7 10 and 11.

8 Now, Alternative 4 being a
9 completely different one gets its own set of

10 slides. So whereas with Alternatives 1 through
11 3, we're eliminating 57 million gallons. With
12 Alternative 4, we're eliminating 17 million,
13 treating 20 and -- 17 untreated so 17 just
14 doesn't get handled at all; 20 treated, 20
15 eliminated. So on day 2 we've got our start of
16 a plume.

17 And this second plume is coming down
18 from Moshassuck. And, you know, again, this is
19 sort of a repeat of the other ones. We're
20 meeting contact standards as opposed to not
21 meeting contact standards for Alternative 4.
22 Day 3 we're meeting contact standards for
23 Alternatives 1 through 3. We've got pockets
24 that we're not meeting contact standards for
25 Alternative 4.

33

1 Five the plume moves down to
2 Conimicut Point -- excuse me. We've got
3 borderline results down the shellfishing area in
4 the clear with 1 through 3. Still borderline on
5 day 7 as opposed to in the clear. And again,
6 it's around day 10 that alternative 4 gets your
7 shellfishing back.

8 If we want to come back, if

9 anyone's very interested, these are some
10 thoughts that we can get into a little bit more
11 detail on how that happens. We just love our
12 spaghetti plots. So if anyone is interested,
13 let's wrap up this piece and get some questions.

14 MR. BREUCKNER: I just want to
15 mention that those previous slides that Rich is
16 talking about on water quality. That was for
17 the three-month storm. So that's what water
18 quality would look like after the three-month
19 storm for those various alternatives for a
20 specific size storm. So we're comparing the
21 same storm for each alternative.

22 So if you had a smaller storm the
23 results would probably be better, a bigger storm
24 the results would probably be worse than shown
25 on those slides. But what we're doing with the

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1 EPA is trying to meet the standards for the
2 three-month storm. That's the goal that we're
3 seeking right now. So, Rich, you want to --
4 next slide. Well, we just want to put this kind
5 of in perspective, simply. If you look at the
6 four alternatives, we're looking at cost, rates,
7 regulatory compliance and phasing flexibility.
8 The last one being do we have a lot of

9 flexibility in how we build this?

10 So for Alternative 1 we have
11 indicated the costs is about neutral when you
12 compare it to the other alternatives. Roughly,
13 the same as Alternative 2. Alternative 3 is
14 more expensive primarily because you do that
15 work up front. The interim work up front to
16 bring the flow from 218 to the treatment plant,
17 it just increases the overall cost.

18 And then for Alternative 4, as
19 Richard mentioned, it's about half the cost of
20 the others. But there is a tradeoff as he's
21 shown you with regard to achieving water quality
22 standards. For Alternative 1 the rates are the
23 highest because the money is spent right away,
24 in a very short time. But you get very good
25 regulatory compliance because you meet water

35

1 quality standards sooner. And you achieve that
2 by storing the flow in the tunnel so it gets
3 full treatment.

4 So for Alternative 1, you actually
5 capture that three-month storm in the tunnel so
6 there's no overflows. And you treat that and
7 you get a high degree of water quality

8 improvement. For Alternative 2, the rates are a
9 little bit better because this is the longer
10 schedule.

11 The tunnel is done up front but
12 then we, the additional components for phase 2
13 for alternative 2 are pushed out further so we
14 spread out the cost and we wind up with lower
15 rates overall. With regard to regulatory
16 compliance, again, this is what EPA really would
17 like to see.

18 A tunnel to capture and store that
19 three-month storm, treat it and then discharge
20 it. Late phasing flexibility on both of those
21 are low because it involves the tunnel. And the
22 tunnel is, when you start a tunnel, you're
23 building the whole thing and you're spending all
24 of that money for that part of the phase. It's
25 just some costs, if you will, no punt intended

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1 for the tunnel. But once you start it you're
2 going to spend a lot of money.

3 Alternative 3, regulatory
4 compliance -- well for rates, the rates get a
5 little bit better because roughly to Alternative
6 2 the maximum rate is roughly the same for
7 Alternative 2. It's spread out a little bit

8 longer so the rates are a little bit lower. The
9 regulatory compliance we dropped it a little bit
10 because you don't achieve the water quality
11 standards as fast. It takes longer to get the
12 same water quality benefits you get with
13 Alternative 2 and 1.

14 And for phasing flexibility we
15 indicated a little improvement there because we
16 can faze it longer, and we may decide as we go
17 out to make other changes to the program that
18 might save us more money depending what happens
19 early on, changes in the program, stormwater
20 impacts. Those can all be addressed because
21 we're kind of shifting everything out waiting to
22 see what happens. And then for alternative 4,
23 the rates are obviously the lowest because we
24 have a fairly long schedule. It's a lower cost
25 project.

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1 Regulatory compliance, as we've
2 shown, is a bit of an issue. EPA and DEM favor
3 storage and treatment because it's a known.
4 You've got to capture that flow, you've got to
5 treat it, you've got to discharge it. When you
6 have a flow-through facility, there may be some

7 variation in the level of the quality of the
8 discharge. It will require a permit for that
9 wet weather facility. It has to meet standards
10 on every storm event when it discharges.

11 So that's a concern about whether or
12 not we meet water -- and also you saw the water
13 quality results were not as good so we'll be
14 meeting water quality standards as well as we
15 would with the other alternatives. But for
16 phasing flexibility, it's very positive because
17 you have a lot of flexibility. There are so
18 many components. You can build it in any amount
19 of time that you want. There's no big tunnel
20 component. The interceptor that's being built
21 can be built in segments over time. Any
22 questions?

23 CHAIRMAN MESOLLELA: Go through the
24 Alternative 2 scope again, the scope of
25 Alternative 2?

38

1 MR. BRUEKNER: There's one other
2 thing I want to mention before I do Alternative
3 2, briefly. Alternative 4 was one that we came
4 up with kind of toward the end of the
5 evaluation. And although we came up with some
6 numbers and what it would entail and water

7 quality improvements. I think that that
8 alternative probably would need to be looked at
9 a little bit more. Because I think we can
10 improve the performance of it, and we also want
11 to look at cost a little more closely.

12 So I think if we're going to keep
13 four in the mix, I think we probably would want
14 to do a little further evaluation of that one
15 just to make sure what we've put down is
16 accurate.

17 MR. RAICHE: So Alternative 2; the
18 first subphase constructs the tunnel. Also do
19 some green water stuff in some select sewer
20 sheds but the first thing out of the gate is the
21 tunnel. What it does is it captures 41 million
22 gallons for our three month storm which is the
23 yardstick that DEM has set. Round numbers cost
24 about \$550 million. In terms of this is an
25 interesting number. If you want to think about

39

1 it in terms of cost per gallon captured as \$14
2 cost per gallons captured for that first phase.

3 UNIDENTIFIED SPEAKER: More than a
4 cheap bucket I buy.

5 MR. RAICHE: And, you know, one of

6 the reasons why it's most efficient because it
7 gets those two big red dots on Tom's second
8 slide, that 218 and 205. The two biggest pieces
9 and he picks up some pieces in between. The
10 second phase then does the interceptors that
11 continue on north and pick up the outfalls in
12 Central Falls and three more outfalls in
13 northern Pawtucket.

14 Those interceptors then connect
15 into the tunnel, so it brings the flow from
16 those ones down to the tunnel. Round number is
17 about 9 million gallons that's captured in that
18 phase. Because what's really handling the flow
19 from that is the tunnel that's already been
20 built in Phase I and the interceptor relatively
21 cheap. On the face of it, that's five dollars
22 per gallon captured. But really is because
23 you've invested most of it in the first phase.

24 The third phase would be the stub
25 tunnel out to the Moshassuck where 220 is our

40

1 third largest one. The subtunnel cost per
2 gallon is \$19, cost per gallon captured because
3 we're picking up about well -- it's five and a
4 half million gallons on that one. And then the
5 final phase closes out the Providence section,

6 most of Providence was addressed in Phase I and

7 II. There were some last areas to be done.

8 And that does the West River

9 interceptor which picks up two outfalls in the

10 West River and sewer separation in an area

11 immediately adjacent where the sewer separation

12 is wrapping up right now. And that picks up

13 another one and a half million gallons. That

14 one winds up being more expensive, because, you

15 know, again, we're out on the edge of the curb

16 where \$35 per gallon captured.

17 CHAIRMAN MESOLLELA: So if you did

18 the main tunnel which you labeled Pawtucket

19 tunnel, right? That's what we're talking about?

20 MR. RAICHE: Correct.

21 CHAIRMAN MESOLLELA: And then you

22 have the stub tunnel, right? Do you have to do

23 the stub tunnel, or -- been go ahead.

24 MR. RAICHE: And honestly, there's

25 been -- there's some additional engineering that

41

1 we have to do. When we do the preliminary

2 design on the main tunnel, there's some

3 engineering investigation we want to do to

4 optimize the system. As we're sitting here

5 right now, we don't have a good enough picture.
6 And a lot of it has to do with levels of service
7 in Pawtucket.

8 If we can achieve certain things,
9 certain concepts that we have. But there's some
10 indication now that we can pick more with the
11 tunnel and perhaps the stub tunnel will not need
12 to happen.

13 CHAIRMAN MESOLLELA: Will or will
14 not?

15 MR. RAICHE: Will not need to
16 happen. I can't say with a hundred percent
17 certainty -- I can't say with a hundred percent
18 certainty without doing that additional
19 engineering. So in terms of putting together a
20 plan to bring to EPA right now what we would do
21 is say, you know, these are our phases. We're
22 going to do preliminary design. The stub tunnel
23 is Phase III. We'll figure that out between now
24 and phase III maybe we don't need to do it.

25 CHAIRMAN MESOLLELA: Excuse me.

42

1 When you're talking about Pawtucket tunnel,
2 you're talking about the size, diameter-wise?

3 MR. RAICHE: Correct.

4 CHAIRMAN MESOLLELA: And the

5 potential alternative for stub tunnel?

6 MR. RAICHE: Correct.

7 CHAIRMAN MESOLLELA: Okay. I just
8 want to be clear.

9 MR. BRUEKNER: There is another
10 alternative too for 220. As you see it says
11 Morely Field tank and that would be a screening
12 disinfection.

13 CHAIRMAN MESOLLELA: The near
14 surface storage facility.

15 MR. BREUCKNER: The small storage
16 facility would flow through to pick up the extra
17 volume that's not stored. Similar to what we do
18 in alternative 4, so they'd be no stub tunnel on
19 that one. We treat it right at the site.

20 MR. RAICHE: So these are ideas
21 that we can investigate to bring the overall
22 cost down. Another reason why we think it's a
23 good idea to phase this thing to get a better
24 picture.

25 COMMISSIONER ANDRADE: I'm not sure

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1 if I'm jumping ahead, but there are four
2 alternatives here. Are they presented -- do we
3 choose one and present it to EPA and they say

4 yes or no. And then we go back and choose
5 another. Or do they have the option of choosing
6 one of the four? Who has that option, us or
7 them?

8 MR. RAICHE: Do you want to answer
9 that?

10 MR. MARSHALL: Sure. I suppose
11 there's a couple of different ways we could
12 approach it. We haven't made a decision in that
13 regard. My inclination would be to show them
14 the four that we've looked at, the four we've
15 narrowed it down to, and why we want to make a
16 case for whatever it is the Board selects. And
17 then you, like in the Conimicut say, well, what
18 about this and what about that. So that they
19 see that we've reviewed a whole spectrum of
20 options.

21 And what the advantages and
22 disadvantages of each of them are. And of
23 course, we would make the strongest case and the
24 best pitch for whichever one the board is, you
25 know, is the most comfortable going forward

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1 with.

2 CHAIRMAN MESOLLELA: And I think
3 that's correct. I mean, I think this Board

4 needs to make a policy decision. I think it's
5 important for us to lay out our plan to the
6 regulators that this is how we intend to
7 approach our issues, take into consideration the
8 water quality, take issues of affordabilities
9 into consideration. This is our plan. And I
10 suspect what they'll do is come back with
11 comments as to why or why not. And they'll be
12 some dialogue going back and forth, but
13 eventually, there will be a conclusion on the
14 final plan.

15 MR. MARSHALL: And it doesn't mean
16 that some variation of one of those four plans
17 is won't ultimately be what we sign on to. They
18 might say, okay, we'll agree to -- lets just
19 pick one, three. We'll agree to three, but we
20 want you to do a little more green up front.

21 We want you to spend \$2 million
22 dollars a year on green infrastructure that you
23 don't already have in the option. And if that
24 works out, the Board's still comfortable with
25 it, that might -- now, we have those type of

1 negotiating opportunities, I believe, or will
2 because DEM and EPA seem to be at this point

3 open minded about what it is they're willing to
4 discuss with us.

5 I mean, they haven't stiff armed us
6 or given us any indication that we're wasting
7 our time here that this appears to be a viable
8 open process. We have to make the case is what
9 it all boils down to. Thanks.

10 CHAIRMAN MESOLLELA: Commission
11 Worrell?

12 COMMISSIONER WORRELL: I love
13 option 4 because it can cost a lot less money.
14 However, my question is to you, Tom or Rich. Do
15 you have any sense -- and Ray, is that a, I mean
16 is that a realistic option to present to EPA, or
17 are they just going to laugh up out the door
18 with that?

19 MR. BREUCKNER: Well, first of all,
20 it is something that is acceptable under the CSO
21 policy. That is providing treatment for an
22 overflow with screening and disinfection. And
23 in fact, I just met with someone from, who did
24 the design for such a facility in Nashua, New
25 Hampshire which EPA had approved.

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1 So that is an acceptable
2 technology. The problem with that Alternative

3 II, one is getting the flow from all the way up
4 to 205 and above, down to that facility because
5 you reach the --

6 COMMISSIONER WORRELL: The facility
7 at Bucklin?

8 MR. RAICHE: Correct.

9 MR. BRUECKNER: The new facility
10 you build at Bucklin Point which is a 14 million
11 gallon storage tank, which we can do fairly
12 easily, that technology's fairly well known.
13 The problem is getting all of that flow that
14 occurs upstream of 218, down there with an
15 interceptor that's only 10 feet in diameter.

16 Because once you get above 10 feet in diameter,
17 you're no able to microtunnel. You're now going
18 to basically a tunnel boring machine.

19 You're basically going to a rock
20 tunnel. So that kind of the break off point.
21 So that's why I say we need to look at this
22 further to see if we -- the assumption was when
23 the preliminary evaluation was done we cannot
24 get all that flow down to the plant in a 10 foot
25 interceptor.

1 So I think we need to look at that

2 to see if in fact we could make some changes or
3 come up with a design that would allow us to do
4 that. And if you can't, then I think that this
5 alternative really is not feasible. You have
6 too much untreated overflow during the
7 three-month storm.

8 COMMISSIONER WORRELL: Would it be
9 conceivable to rather than have the holding tank
10 at the Bucklin Point site, would it be
11 conceivable to build either a smaller one or
12 total alternative no farther.

13 MR. RAICHE: The problem is there
14 are no candidate sites in Pawtucket or Central
15 Falls for a facility of that size.

16 COMMISSIONER WORRELL: Okay,
17 there's your answer.

18 COMMISSIONER CARLINO: Are you
19 saying that because the flow won't get down fast
20 enough. I think one of the slides that showed
21 that really is taking four or five additional
22 days before you get that water quality that you
23 would have gotten through Alternative 1 through
24 III.

25 MR. BRUECKNER: No. Well, the

1 reason for the poorer water quality for

2 alternative IV is just that you do have those
3 overflows occurring upstream and it takes four
4 or five days for that overflow that occurred on
5 the Blackstone to get down to Providence River.
6 You see that sludge come down.

7 COMMISSIONER CARLINO: And because
8 I'm trying to -- in my mind, I'm trying to
9 simplify everything that we've heard, right. So
10 I'm looking at Alternative IV which is half the
11 cost of any of the other alternatives. And I'm
12 saying at half the cost I'm not going to get the
13 water quality that I would be getting with the
14 other three phases, but how bad would it be?

15 Is it -- and I apologize if I'm
16 misunderstanding. When you show the first three
17 phases it seemed like that water quality after
18 five days was very good. Whereas with Phase IV,
19 it wasn't good -- sorry Alternative 4, the water
20 quality wasn't -- it matched Phases I through
21 III on maybe day 10, day 8.

22 MR. RAICHE: So it's closer to day
23 10.

24 COMMISSIONER CARLINO: So what I'm
25 saying for five extra days we're spending half

1 as much money. So if we have to go before a
2 regulatory body, I think that's the simple way
3 they're going to look at. I mean, all this is
4 great. But I'm just saying for five extra days
5 we're spending half the amount of money.

6 MR. RAICHE: Unfortunately, it's a
7 two-part negotiation there. On the face of it
8 that is a compelling argument, but you also have
9 to prove that you can't afford that higher level
10 of five days. So it has to be a two -- and EPA
11 has to agree with the analysis that the,
12 essentially, a tunnel alternative is
13 unaffordable. So you can't just argue on the
14 five days, you have to argue that we can't
15 afford those five days.

16 MR. BRUECKNER: Yeah, it's not
17 really a cost-benefit analysis that they do.
18 They care about how much money you're spending
19 and whether you -- because as I've said, you can
20 never meet the standards all the time, so you
21 have to spend enough to meet the standards as
22 much as you can.

23 CHAIRMAN MESOLLELA: Excuse me.
24 And at the end of the day, do we say do this
25 other project, as well, right. I'll do this --

1 MR. RAICHE: And call it Phase IV,

2 MR. BRUECKNER: I think for

3 alternative IV it could be demonstrated you

4 could in fact get all of the flow to the

5 treatment facility and provide treatment for the

6 three-month storm that the water quality results

7 would be similar to the tunnel alternative.

8 Maybe not as quite as good, but pretty close. I

9 think it would be something that I think they

10 would consider.

11 COMMISSIONER NATHAN: The

12 appropriate politicians, House Senate,

13 governors, mayors, are they aware of what we're

14 looking at?

15 CHAIRMAN MESOLLELA: First of all,

16 I can't answer that question. I suspect --

17 well, they should be. I suspect that they're

18 probably not at least in the magnitude that

19 we're talking about. The incoming governor, she

20 will be governor today, I guess. I think she's

21 aware of the impacts. We've had some

22 opportunities to meet some opportunities to meet

23 with, I guess, Ray, I don't know, who's been

24 meeting with the transition team?

25 MR. MARSHALL: I met with a couple

1 of people on their transition team. They said,
2 you know, what's the biggest thing you have
3 going on? Of course, I highlighted Phase III
4 and all the work that the Board and the
5 Stakeholders are doing on Phase III, so they
6 know of it.

7 CHAIRMAN MESOLELLA: There's a lot
8 of things to consider here. I mean, we're
9 looking at this -- and, you know, as a singular
10 issue. There are a lot of things that could be
11 impacted by this the economic generator, a lot
12 of jobs created, a lot of work, income tax, a
13 lot of sales tax. This is an economic
14 generator, as well. You need to think we cannot
15 overlook.

16 So we're looking at this as a water
17 quality issue, a treatment issue. But, I mean,
18 it impacts so many other things that I think it
19 leaves the Board. That's why I think this
20 workshop is helpful. We can have a discussion
21 about, you know, when we talk about costs, well
22 what does that mean? We have interest rate to
23 consider. We talk about the duration of the
24 project. What are interest rates are going to
25 do? We stretch out this project a little

1 longer. We worry about rates, you know,
2 escalating. There are a lot of things to
3 consider. So that's why I think this workshop
4 is truly helpful.

5 COMMISSIONER NATHAN: And who
6 benefits?

7 CHAIRMAN MESOLLELA: Well, of
8 course the people downstream, but we have this
9 little philosophical debate all the time. You
10 know, we talk about costs. I've been saying,
11 you know, and I'll talk a little bit more about
12 it at our meeting later on this month.

13 Introducing getting some legislation introduced
14 to mitigate the impact of the cost of this.

15 I said it for many, many years that
16 I believe that the state should be supporting
17 this effort, this effort with some direct
18 appropriation within the budget. We always
19 considered ourselves a statewide resource and
20 ask that this cost be spread out statewide.

21 But, I mean, there are a lot of things to
22 consider here. But I don't want to get to far
23 afield of why we're here this morning. This is
24 a very helpful. We thank you, Tom and thank you
25 Rich.

1 MR. MARSHALL: One more thing
2 before we move on, Commissioner Nathan, on the
3 stakeholders group there are representatives
4 from the communities who were invited and do
5 participate. Pawtucket, Lincoln, Central Falls,
6 Providence, are usually here all the time.

7 MR. RAICHE: And East Providence.

8 MR. MARSHALL: And East Providence
9 are usually here at every meeting. So I've
10 spoken with them individually and said, you
11 know, you need to bring this back to your
12 community to whomever ever is, you know, is on a
13 need to know basis in your community.

14 COMMISSIONER NATHAN: If they do.

15 MR. MARSHALL: If they do. But
16 they have certainly been exposed to the
17 explanation.

18 COMMISSIONER MILAS: What is the
19 timeline that we have to report to the EPA that
20 we made a decision. Because like Vinny just
21 said, I think it needs more than one stakeholder
22 of our meetings because we haven't talked about
23 economic development things about job creation.
24 Can't that be part of the extension of time that
25 we are demonstrating that we're having board

1 meetings and we've only done the economic
2 development one, and now we're doing the banking
3 one, and now -- so is that part of the argument.

4 Because one of my big concerns too
5 is we have the new congress. They want to rip
6 apart Dodd Frank. Are they going to do the
7 clean water act because if we sign off on
8 something and the Clean Water Act changes in six
9 months we've already locked ourselves into a
10 project that maybe we could have waited on if
11 the law changed. And that's where I think,
12 like, Vinny said the congressional delegation
13 has to be more -- we've got to be more involved
14 with them because all of a sudden this congress
15 decides to change it because they want to put a
16 pipeline in like John said, and also we locked
17 into something and we're stuck.

18 Maybe we won't have to if we bought
19 ourselves six more months to see what congress
20 is going to do with the EPA. How much time do
21 we have before we make a decision?

22 MR. MARSHALL: I would say we have
23 several more months. The next deadline we have
24 to meet is we have to have preliminary plans in
25 one year from when Phase II is completed. It

1 depends on now on your definition of when
2 completion is. It could be now in the most
3 strict interpretation because the facilities are
4 on-line. On the other hand, the projects won't
5 be technically complete until some time this
6 spring, early summer. When all the cleanup, all
7 the paving, all the punch list items are done.

8 So that's the reason why we're
9 operating in the time period we have, why we
10 started it at the beginning of 2014. Based on
11 Stakeholders group and the input that they've
12 given us, there's a few more things that they'd
13 like to see or hear about, as I think I'm
14 sensing from, you know, from you all. And I
15 mentioned to DEM at that meeting, and said, it
16 looks like we might need a little bit more time.

17 And that seemed to be met with, you
18 know, sure, as long as your request is
19 reasonable. I originally threw out two or three
20 years. That apparently wasn't considered
21 reasonable. But six months seemed to get at
22 least a nod of the head informally. And Laurie
23 and I meet with Janet Coit and Terry Gray on a
24 regular basis and we brought that issue up to

25 them, as well, to say, you know, we may need

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1 more time. There seems to be some additional
2 information that would be valuable, you know, to
3 the Board, for example, I knew we were going to
4 have this workshop here today. So I think if we
5 went to them and said, we'd like to like to
6 submit our report in, let's just say June. So
7 that will give us a six-month reprieve from our
8 imposed schedule which was to get it done by the
9 end of '14 and get it in early '15.

10 I think they would give us that
11 time. So I think there's a few things that they
12 might want to see themselves that haven't
13 already been factored in, which might be another
14 financial analysis which I think the Chairman
15 has mentioned.

16 COMMISSIONER MILAS: So you report
17 to DEM and then DEM reports to EPA?

18 MR. MARSHALL: Yes. Because in
19 Rhode Island our DEM is a delegated state. So
20 they have the authority. They still have to
21 answer to EPA of course, and they can still be
22 superseded by EPA. But in New Hampshire, as Tom
23 pointed out, they're not a delegated state so
24 EPA directs everything that goes on there, as

25 well as in Massachusetts, too by the way.

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1 CHAIRMAN MESOLLELA: Commissioner
2 Bennet.

3 COMMISSIONER BENNETT: Mr.
4 Chairman, I apologize if you've already
5 considered this. But you -- I see a number of
6 different positives, jobs and the economic
7 development. And I just happen to drive up
8 Narragansett Boulevard on the way here today.
9 And I remember when I was a kid you wouldn't be
10 able to go in that water.

11 Now, everyone's pretty happy with
12 the property values that have increased, the
13 property taxes that have increased for that
14 property. So that being said, moving forward.
15 Has there been any thought of thought of some
16 sort of impact study where you plug in all these
17 different metrics and show an ROI.

18 Every ten years -- at the
19 convention center every ten years someone
20 criticizes the authority because there's this
21 big convention center at Dunkin Donuts' Center
22 and how much it costs our taxpayers. And then I
23 just saw the economic impact study the other

24 day, and you go, wow, that really makes a lot of
25 sense why you should have it there. So I didn't

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1 know if there was any thought process.

2 CHAIRMAN MESOLLELA: I don't think
3 we've done anything formally with that. I've
4 talked about it kind of informally about, you
5 know, the impacts of a project of this
6 magnitude. We haven't done anything formally.
7 We have talked about getting another feasibility
8 -- not feasibility, but a financial impact
9 analysis done. And that's maybe one of the
10 things that we can consider. I'm not sure if
11 we'll be considering having doing that for us to
12 have been able to plug in that metric.

13 MR. MARSHALL: Right. I mean, if
14 we're talking about one of the financial
15 investment banks like --

16 CHAIRMAN MESOLLELA: They probably
17 would not, right?

18 MR. MARSHALL: Right, supposedly
19 it's a conflict of interest. But someone like
20 PFM who's our financial advisors would be well
21 suited.

22 CHAIRMAN MESOLLELA: Commissioner
23 Rotella.

24 COMMISSIONER ROTELLA: Mr.
25 Chairman, to follow up on what Commissioner

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1 Bennett said and what you said also, let's just
2 do about a ten second economic impact study. I
3 know it takes a long time, but let's do a real
4 quick one. If we're going to spend 8 hundred
5 million dollars can we guess half of that would
6 be labor?

7 CHAIRMAN MESOLLELA: Sure.

8 COMMISSIONER BENNETT: Okay. And
9 can we guess that the tax rate on that 40
10 million is going to be about 20 percent for the
11 state? So that's 80 million. If we get half of
12 that back, that's a nice piece of change towards
13 a project. Figure -- I mean that's what I said.
14 Ten second economic impact we already made 40
15 million. We probably can do more with more tax.

16 MR. MARSHALL: Just for the record
17 as it pertains to sales tax, there's no sales
18 tax on any of the materials that are purchased
19 and included as part of our project.

20 CHAIRMAN MESOLLELA: Is that right?

21 COMMISSIONER NATHAN: I'd like to
22 take your thought a little bit further, Jim.

23 Luring companies to Rhode Island. Yes, the tax
24 situation stinks. Companies don't want to be
25 here, they want to be in Massachusetts. The

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1 senate and the house and the governor
2 understands this. What we have done and are
3 looking at is the most important assets the
4 state does have. And we are way ahead of that
5 curve. So that from a luring company's
6 executives to want to live here, that's an
7 important part of that tunnel if you want to
8 look at it that way.

9 COMMISSIONER ROTELLA: Commissioner
10 I can tell you, and they don't talk about this
11 in the paper. It's already happening. Textron
12 is bringing its executives. After talking about
13 moving out of here three years ago, they're now
14 bringing their executives into Providence
15 because of that very issue.

16 COMMISSIONER NATHAN: Brian Goldner
17 has just paid a little under \$5 million dollars
18 to buy a house in Barrington on the water.
19 They're staying here.

20 CHAIRMAN MESOLELLA: Who did?

21 COMMISSIONER BENNETT: Hasbro.

22 COMMISSIONER NATHAN: The guy

23 running Hasbro.

24 COMMISSIONER BENNETT: So, you're

25 right. It's happening. It's quality of life.

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1 That's why we're here.

2 CHAIRMAN MESOLLELA: Well, anyway,

3 so we can go on and on, and we can do this at

4 the board meeting. Do we have more to present?

5 MR. RAICHE: We are happen to

6 answer any questions and any details that

7 anybody wants.

8 COMMISSIONER WORRELL: Is there any

9 data available on credible stormwater control

10 efforts in other communities nationally that we

11 might be able to use when we go before EPA on

12 the affordability questions?

13 MR. RAICHE: The data is scarce

14 because stormwater on a technological standpoint

15 is so far behind treatment and CSO, as Tom

16 mentioned. What data there was available is

17 what we use to build what Providence -- we did

18 it for Pawtucket and Central Falls, as well,

19 could or should be spending. So that \$10

20 million dollars a year that we estimated --

21 COMMISSIONER WORRELL: Well, does

22 that include Providence, Pawtucket and Central
23 Falls?

24 MR. RAICHE: Potentially, the 10
25 million a year it was for Providence, but that

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1 is sanitary upgrades and stormwater.

2 COMMISSIONER WORRELL: Is it both
3 lateral sewers as well as stormwater for the
4 whole district?

5 MR. RAICHE: The graph that I
6 showed was for Providence only because frankly,
7 that's the most compelling case. And the \$10
8 million dollars per year broke down to \$8
9 million in repairs of the system which has been
10 deferred and \$2 million for stormwater projects
11 in round numbers. We have those breakdowns. I
12 might have printed those out anticipating a
13 question like that. I did not bring it with me.
14 I got the combined. I don't have the breakdown.

15 We have those numbers for each of
16 the communities. We developed it for each of
17 the communities. Providence is the most
18 compelling case because it has the largest
19 system so the lateral repair cost is the big
20 estimate. It also has a very large land mass so
21 the stormwater component is higher.

22 Central Falls was a compelling case
23 because it's one square mile. There's not that
24 many pipes and they don't have any stormwater
25 outfalls. Pawtucket was somewhere in between.

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1 They've got a lot of laterals. They don't have
2 many stormwater outfalls.

3 COMMISSIONER WORRELL: Where does
4 the term in dollars annually come from, is that
5 a bonding issue, or is that out of general
6 revenue?

7 MR. RAICHE: Well, what we assume
8 is that for the financial analysis we assumed
9 that they would bond \$10 million per year at
10 like 2.5 percent, something like that, for 20
11 years. There's a financial assumption to put on
12 top of an engineering assumption.

13 MR. MARSHALL: So what other
14 information would the board like to have
15 developed before you get into a decision-making
16 vote. Certainly no decision needs to be made
17 today. Even when we meet next week, no decision
18 needs to be made. What else -- I mean, do we
19 want the third party financial look at this? Do
20 we want to do a return on investment type of

21 analysis?

22 CHAIRMAN MESOLLELA: Yeah, I mean,
23 first of all, with regard to this presentation,
24 are there any more specific information about
25 either of the four options that are available to

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1 us and what we know about and are there any
2 questions regarding that? Do we have any
3 questions about that?

4 So in such case, we've talked about
5 getting one of our financial advisors to look at
6 some analysis as to what rates might be doing
7 over the next 10, 15, years out what kind of
8 impacts those have as rates might click up what
9 kind of impact that has on rates and costs.

10 We could add that economic spinoff
11 component that what we could I don't know who
12 would do that we could probably get some firm to
13 take a look at that. And then I think these are
14 all facts that the Board should have before they
15 make their decision to go forward.

16 Whatever we spend whether it is
17 five hundred million or whether it's \$750
18 million, it's still a lot of money, or we'll be
19 talking about big monies soon. So, I mean, I
20 think the more facts that we have and we know

21 what impacts effect this project, I think we
22 should have those facts -- whether we go forward
23 getting that piece of that done, I'd like to go
24 forward with that.

25 MR. MARSHALL: Is there anything,

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1 Tom, that we need to do from a technical point
2 of view that that --

3 MR. BRUECKNER: Tom, I would like
4 to look at the water quality results again.

5 MR. MARSHALL: Okay, water quality
6 results?

7 MR. BRUECKNER: Right. And I would
8 also like to do a little further evaluation of
9 Alternative 4?

10 MR. MARSHALL: Okay.

11 CHAIRMAN MESOLLELA: Okay. I'm
12 going to speak for myself. I think we should
13 take Alternative 4 right off the Board. I think
14 we should not consider going forward with
15 Alternative 4. We are talking about water
16 quality issues.

17 The impacts of the stormwater --
18 which we have to explore more throughout the
19 communities is too much of an impact on what

20 we're going to be doing here at NBC. From my
21 perspective I think we should not spend any time
22 on Alternative 4.

23 COMMISSIONER ANDRADE: Are you
24 considering the doubtfulness of it being
25 approved by DEM, then I would agree.

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1 CHAIRMAN MESOLLELA: Well, I mean,
2 there's regulatory issues which I think we've
3 already heard that, but beyond that, I mean
4 there are water quality issues that are way
5 beyond our control. And even if we went forward
6 with Alternative 4, it may not have the water
7 quality impact that I can see. I haven't been
8 convinced that's going to satisfy the water
9 quality issue. So from my perspective, I think
10 we should take alternative 4 right off the table
11 today.

12 COMMISSIONER BENNETT: Do you need
13 a motion for that?

14 CHAIRMAN MESOLLELA: We're not a
15 board meeting, but, this is just informal. But,
16 I mean, we got a sense of the sense of the
17 commissioners, I think that would be enough
18 today.

19 COMMISSIONER NATHAN: What about

20 what Joan said that maybe the EPA specifications
21 could change, their requirements could change.
22 How do we deal with that?

23 CHAIRMAN MESOLLELA: Let me ask you
24 a question. Do you see that happening in the
25 next six months?

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1 MR. MARSHALL: No, not in the next
2 six months.

3 CHAIRMAN MESOLLELA: Neither do I.

4 MR. MARSHALL: I mean, if I had to
5 weigh on that watching what's going on now for
6 the last 42 years, there's a better chance I'll
7 become the next Pope.

8 CHAIRMAN MESOLELLA: I think we
9 should start at the moment is some initiatives
10 to get our congressional delegations to start
11 talking about some of the amendments of the
12 Clean Water Act.

13 I'm fully cognitive of the fact
14 that it would take years before any of that
15 issue gets any attention, especially of what
16 we're confronted with this in this country
17 today. So, I mean, that's only my perspective
18 on it. Feel free to make your own decision.

19 COMMISSIONER MACQUEEN: I agree
20 with you a hundred percent. I think just to
21 vote by hand --- to take 4 right off the board.

22 CHAIRMAN MESOLLELA: I suppose it
23 wouldn't hurt to take a look at it, but I
24 wouldn't want to spend any considerable amount
25 of money or time on that issue.

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1 COMMISSIONER MACQUEEN: Richard, I
2 thought you said at the last meeting that we'd
3 have to make a lot of alternate, you know,
4 instead of -- come back about ten years later,
5 five years later to build another tunnel up
6 there?

7 MR. RAICHE: It could be. That
8 could be EPA's response to that. If you wanted
9 to proceed now with something like Alternative
10 4, that EPA would then say that once you have
11 money would you reach that below 2 percent of
12 affordability, for whatever your case issue is,
13 you have to build more. And what that looks
14 like at that point, you're probably back into a
15 tunnel at that point, anyway.

16 COMMISSIONER MACQUEEN: So why not
17 just take it off right off the bat.

18 MR. MARSHALL: Just a reminder

19 again. Whatever the Board decides, we'll have
20 to relook at it every five years anyway. It's
21 not a life decision.

22 COMMISSIONER CARLINO: And I think
23 if we're trying to get to the point where we
24 have to make a decision having more alternatives
25 just makes the issue a little cloudy. And I

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1 want to thank Tom and Rich for coming up with
2 that fourth alternative because that wasn't
3 easy. And I know it was at the very end that
4 you came up with it. And I think it was
5 creative thinking. I think it was thinking out
6 of the box. It was a different philosophy. I
7 got to be honest.

8 At the beginning I liked it, but I
9 think at this point in time based on the other
10 factors that we've talked about, especially
11 with, you know, economic development and water
12 quality, I think at some point we have to say
13 let's shelf this for the time being. So I want
14 to thank you for coming up with that idea. And
15 I would tend to agree to table Alternative 4.

16 CHAIRMAN MESOLLELA: Anybody else
17 have anything to say regarding that? Is there

18 any disagreement with that? Anybody disagree
19 with that? Commissioner Worrell.

20 COMMISSIONER WORRELL: The only
21 disagreement that I would have. I mean, I love
22 the concept of the economic multiplier impact.
23 There's no question that that's a hugely needed
24 factor in the current economy of the state. But
25 I'm a little bit concerned about the cost

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1 affordability. It's pretty clear to me that
2 once we as a country get our hands around
3 stormwater, we're going to find as the Chairman
4 has pointed out, that it is horribly expensive.
5 And once we get a chance to look at what's been
6 going on in the City of Providence and Pawtucket
7 for the last 80 or 90 years by way of total
8 disregard about all of those sewers, we can fix
9 them when we have to.

10 Those two cost factors, I can see
11 adding another hundred basis points to the
12 affordability issue. So, and if we're already
13 at close to two with options one, two and three,
14 then when we finally get around to addressing
15 stormwater and lateral sewer maintenance, we're
16 going to be at 3 percent now.

17 You know, I don't think that's

18 going to impact anybody in this room very much,
19 you know, whether we pay another 75 bucks or a
20 hundred bucks a year. But I think there's a lot
21 of people in our community that will be impacted
22 by that.

23 So that part bothers me greatly if
24 we're going to take four off of the, off of the
25 possibility off of the table. So that to the

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1 extent that that would be my disagreement with
2 you, the affordability issue.

3 CHAIRMAN MESOLLELA: Well, I think
4 the issue is the uncertainty of it.

5 COMMISSIONER WORRELL: Well, I can
6 agree with you. It's uncertain. We have no
7 idea what those other two costs are going to be.

8 CHAIRMAN MESOLLELA: Commissioner
9 Kimball -- excuse me. Commissioner Kimball.

10 COMMISSIONER KIMBALL: You could
11 also point out the importance of what you
12 brought up earlier in that. We need another
13 source of revenue. We need more sources of
14 revenue. Whether that's again from the state,
15 from the rest of the cities and towns of the
16 state or from the state budget. There are all

17 kinds of issues in terms of the state budget,
18 what they're projecting a huge budget deficits
19 to begin with.

20 But we simply -- we're going to be
21 buried by the amount of debt we keep incurring
22 here because we don't have, we don't have a
23 population that's increasing and we don't have
24 -- we don't have enough business coming into the
25 state to give us more ratepayers. So we've got

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1 to be very, very cognizant of NBC's ability to
2 meet its obligations. And that, quite frankly,
3 scares me.

4 COMMISSIONER MILAS: I'm obviously
5 not an engineer, but as those old cities start
6 repairing their infrastructure, is this -- are
7 their projects done in coordination with what
8 the NBC is doing so if Providence with their
9 crumbling pipes all of a sudden we're spending,
10 you know, so much money in the older
11 communities. As they start fixing their pipes,
12 is that going to effect what we did, what we
13 should have done together.

14 You know, it's never cheaper than
15 it is today. So if Pawtucket's going to start
16 doing their infrastructure, is it screwing up

17 the whole thing because we already did that.
18 And if we'd only done it in tandem with
19 Pawtucket, then it would have been cheaper for
20 everybody. Those are the questions I'm not
21 qualified -- I'm yielded to all --

22 MR. BREUCKNER: I would say no. I
23 would say they can run in separate paths. What
24 we do would not necessarily effect the City of
25 Pawtucket's lateral sewers. They can go fix

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1 those at any time.

2 MR. MARSHALL: And they might want
3 to coordinate with us. We have some pretty good
4 coordination up on the East Side when I think
5 when we were doing the sewer separation up there
6 with Providence Water and National Grid, as
7 well, when there was some work done while we
8 were out there tearing up the streets anyway,
9 and that way everything's relatively brand-new.
10 It's not a hundred percent, but, you know --

11 COMMISSIONER MILAS: But will all
12 that be in place going forward that with all our
13 municipalities, is that strategic plan done, as
14 well, so that if everything can be done smartly
15 --

16 MR. MARSHALL: I don't believe that
17 any of the communities have a strategic plan of
18 what they're going to do with their lateral
19 sewers over the next five, ten or twenty years.

20 COMMISSIONER CARLINO: But it may
21 change their thinking.

22 MR. MARSHALL: It might.

23 COMMISSIONER CARLINO: Correct me
24 if I'm wrong. Because if we're going out there
25 and we're ripping up a roadway in their

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1 community, and they know they have to do this
2 work, they might say, you know, maybe we need to
3 start our end of the deal sooner than later, so
4 that after we go in, they'll follow through
5 because we're going to put in a brand-new road,
6 so they might have do it now that the road is
7 ripped up. So we could spur more work in those
8 communities.

9 MR. MARSHALL: And another example
10 of it was the \$40 million dollars worth of
11 paving that the City of Providence started or.
12 I don't know if they actually completed it this
13 year. There was very good coordination. Rich
14 worked closely with the people in DPW to make
15 sure we knew what we were paving, they knew what

16 they were paving. And if there were any gaps in
17 between, sometimes those were picked up. And so
18 it absolutely can be done.

19 The other way to look at that is
20 that if the bill has and its surfaced time and
21 time again in the General Assembly about the
22 Narragansett Bay Commission taking over all the
23 neighborhood sewers in our communities that are
24 part of our service district, then we would
25 immediately go through and begin evaluating all

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1 of those pipes, and determining what needs to be
2 replaced and what sequence, over what period of
3 time and coordinate that with any other work
4 we're doing, in particular, the CSO program.

5 COMMISSIONER MILAS: So before we
6 vote on one, two three, four, do you sit down
7 with the municipalities and go, all right,
8 before we do this, how does this match up with
9 what your alleged strategic plan is so that
10 we're all working proactively instead of
11 reactively?

12 MR. MARSHALL: No. I think it
13 would be -- we would decide --

14 COMMISSIONER MILAS: That's not

15 right. Okay. I don't know, I'm just --
16 MR. MARSHALL: We would decide on
17 what it is we're going to do. And then we would
18 say to them, this is what we're going to do in
19 your community and this is when we're going to
20 do it. So if you have work that needs to be
21 done on those ten streets -- just pick a number
22 -- then that would be the type of thing they
23 might say, okay, we'll go look at that. But to
24 ask them to do something for their entire
25 communities, we could ask. I just don't think

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1 it would happen.

2 MR. RAICHE: In the early process,
3 we actually did --

4 COMMISSIONER CARLINO: But just to
5 tap on what the executive director says what it
6 also does when they're showing their plans, they
7 have to submit to the state they have to submit
8 it to the cities. But now those cities are also
9 saying to National Grid, the Water Department.
10 Any other agency, whether or not they're
11 planning on doing anything out there because
12 they don't want us to go in, pave it, and then
13 someone else go in two days later and rip it up.
14 So that's my point. It begins that process.

15 MR. RAICHE: Yeah. And early in
16 the process, we did meet with the DPW's in each
17 one of effective communities to see if there was
18 anything on the table. And even if they didn't
19 have a capital improvement plan, but they knew
20 were problem areas to see if there was any
21 overlap. And with the exception of some paving
22 plans in Providence, there was no overlap in
23 terms of where their needs are or were they're
24 anticipated. But as Commissioner Carlino points
25 out, once this plan is public it may spur some

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1 thinking along those lines.

2 COMMISSIONER MILAS: Thank you, I
3 apologize. I have to go. This was great.
4 Thank you, very much.

5 CHAIRMAN MESOLLELA: Mario, are you
6 staying or leaving?

7 COMMISSIONER CARLINO: I'm staying.
8 Someone's going to take me from here. I can
9 leave at 11.

10 CHAIRMAN MESOLLELA: I'd like to
11 bring this to a conclusion on option 4. So can
12 we get a consensus as to whether or not we can
13 eliminate that consideration. If there's any

14 other questions, fine, if not, this is not a
15 formal meeting so I can't make a motion. But we
16 have a consensus. Our suggestion is take 4 off
17 the table. Okay. Are we good with that? Okay.
18 We're all done with option 4. So moving on.
19 Regarding the present -- oh, by the way, early
20 lunch.

21 COMMISSIONER CARLINO: Sure.

22 CHAIRMAN MESOLLELA: We can grab a
23 sandwich. You didn't think we were going to let
24 you come here without feeding you, did you?

25 (MEETING CONCLUDED AT 10:52 A.M.)

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1 C-E-R-T-I-F-I-C-A-T-E

2

3 I, PAULA J. CAMPAGNA, CSR, a Notary
4 Public, do hereby certify that the foregoing is
5 a true, accurate, and complete transcript of my
6 notes taken at the above-entitled hearing.

5

6 IN WITNESS WHEREOF, I hereunto set my
7 hand this 8th day of February, 2015.

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20 PAULA J. CAMPAGNA, CSR, NOTARY PUBLIC/CERTIFIED
21 COURT REPORTER

21

MY COMMISSION EXPIRES: April 25, 2018

22

23 IN RE: Board of Commissioners Meeting

24 DATE: January 6, 2015

25