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UNITED STATES DISTRICT COURT

DISTRICT OF NEW HAMPSHIRE

Civil Action No. 1:12-cv-000130-1D

TOWN OF WOLFEBORO
Plaintiff,

V.

WRIGHT-PIERCE
Defendant.

DEPOSITION OF JOHN G. DIGENOVA a witness called on behalf of the Plaintiff, taken pursuant to the Federal Rules of Civil Procedure, before Patricia M. Haynes, a Certified Shorthand Reporter and Notary Public in and for the Commonwealth of of Massachusetts, CSR No.: 14620F, at the offices of Hinckley, Allen & Snyder, LLP, 28 State Street, Boston, Massachusetts, on Friday, November 15, 2013, commencing at 10:05 a.m.

APPEARANCES:

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I N D E X

Witness	Direct	Cross	Redirect	Recross
JOHN G. DIGENOVA				
(By Ms. Cull)	4			

E X H I B I T S

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(None Marked)	

P R O C E E D I N G S

JOHN G. DIGENOVA,

having been properly identified and duly sworn, was examined and testified as follows:

DIRECT EXAMINATION BY MS. CULL:

Q. Good morning. Thank you for coming here today.

A. No problem.

Q. You are here to testify in an expert capacity, correct?

A. Correct.

Q. Have you been deposed before?

A. I have not.

Q. I'm going to ask you a series of questions. If there's anything that is unclear or you would like me to restate, please ask me and I would be happy to do so. I'm going to be showing you documents today, and I'll be asking questions about those documents.

A. Okay.

Q. Please state your name, address and date of birth for the record, please?

A. John DiGenova, 82 Mulberry Lane, Chester, New Hampshire. Birth date is February 16, 1962.

Q. I have handed you a copy of Exhibit 94, which

is the Haley & Aldrich report. And I would like you to turn to the back, please, to your resume. The education details here, are they correct?

A. That is correct.

Q. Are the professional registrations here correct?

A. Yes.

Q. So you're a professional engineer in all of these states?

A. I am.

Q. Do you have any additional education requirements or certifications that are not shown on this resume?

A. Not besides professional development hours which are required for my license. There's lots of those. Yes, I do have, many of these states require professional development hours and so I do stay current on my professional requirements.

Q. I understand. It says you've been with Haley & Aldrich for 27 years. Is that correct?

A. That is not correct. I'm been a geotechnical engineer -- this is an old resume. It should be 29 years. Since I graduated with an undergrad degree, it's been 29 years. I've been with Haley & Aldrich since

September of 1999. So that would be 14-1/2 years.

Q. Who did you work for before Haley & Aldrich?

A. It was a company called Site-Blauvelt Engineers. They are now TransSystems, TRC. They got bought.

Q. Which of their offices were you at?

A. I was at their Mt. Laurel, New Jersey, office.

Q. Are you currently in the Haley & Aldrich New Hampshire office?

A. I am.

Q. How long have you been there?

A. I've been in there since January 1 of 2000.

Q. Did you go directly to that office when you started working with Haley & Aldrich?

A. I started in the Boston office and transferred after three months, four months.

Q. Did you join the company you just mentioned directly out of college?

A. Yes, directly out of college in 1985.

Q. And you joined Haley & Aldrich directly from there?

A. Yes.

Q. What is your current title?

A. Senior project manager, vice president.

Q. Just out of interest, Engineers Without Borders looks interesting.

A. Engineers Without Borders, I'm a member and I have been a member since 2007. I'm trying to start a chapter -- we don't have a chapter in New Hampshire, so I'm part of Boston's chapter right now. We are trying to start one to support obviously what goes on around the world.

Q. Have you done projects for them around the world?

A. I have not yet. I would say I've been more a charter member to the Boston society. It is something I'm interested in. And UNH does have a Students Without Borders chapter. The idea would be to have an adult chapter or professional chapter and help them out with their funding or if they need additional engineering.

Q. I presume it's like Doctors Without Borders?

A. It's a similar organization, yes.

Q. Have you ever testified at trial before?

A. I have not.

Q. What was the first RIB project that you worked on?

A. Wolfeboro.

Q. Describe for me any projects that you have

worked on that are similar to Wolfeboro even though they are not RIB projects.

A. Okay. What my capacity was at Wolfeboro was to investigate two things, essentially two things, the stability of the slope and the piping of soils coming out of the slope.

Those mechanisms are common to many slope stability problems which I have been involved with. Some examples of that would be, it's in the resume, the Conway Bypass.

We had many slopes, many being if you want to quantify it greater than 30, and on those projects, we had to look into the stability of the slope. We had to look where water was going to potentially come out of the slope and what we are going to do in advance for stabilization and to prevent piping of materials.

I worked on, I don't know if it's in here, there was a levy or a dam structure in New Jersey for Monsanto. And there again we did extensive slope stability analyses.

Essentially with slope stability, the slope doesn't care where the water is coming from, whether it be a rapid infiltration basin or just a natural area above. So the conditions at Wolfeboro are very similar

to conditions I've seen at other slopes.

Q. Because it's basically putting water into an area above the slope?

A. Correct.

Q. And these studies that you say involved investigation into slope stability, at what stage of the project were they performed?

A. During the investigation phase.

Q. Can you describe for me in general what an investigation of slope stability entails?

A. An investigation would encompass explorations, which may be borings, test pits, geo probes, various geotechnical instrumentation, dilatometers, installation of groundwater monitoring wells. That's the initial data collection portion of an investigation.

That's not an exhaustive list but that gives you a flavor of it. From that, you would run some soils laboratory testing. Depending on the size, complexity of the project and what the risks are associated with the project -- for example, if there's a building on top of the slope, your risks are higher because it's life safety.

The geotechnical engineer would take a look at the subsurface information, set up a laboratory testing

program, which would include a plethora of tests. It could be gradation of materials, classifying the materials so we get a good laboratory classification.

It could be running strength tests on the materials, tri axle direct sheer tests. If the materials are soft, it could involve consolidation tests. And that's not an exhaustive list either.

There's at least 40 or 50 types of soils tests. Those are the main ones, but there's 40 or 50 soils tests that you could run. And you essentially, I'd say the most important testing that you do is some sort of, to get your arms around the strength parameters of those soils.

At that point what would have to be done is the geotechnical engineer looks at the subsurface data and looks at the laboratory data and sets up a model, which is just an idealized version of what you found during those explorations.

You set up a slope stability model, running it through an electronic program, we personally use Slide, to assess stability. But there's Slope W, there's various, X Stable, there's various slope stability programs that can be utilized.

And they are all valid. They would give you

similar answers. You would investigate what sort of factor of safety you would get under those conditions. Factor of safety is essentially, to put it in simple terms, you have all your driving forces on one side. That's your denominator. And you have all your resisting forces, and that's your numerator.

So you want your resisting forces to be greater than your driving forces. It's the ratio of those things. So the next thing, you would look at the factor of safety. Every site is different.

Where life safety is involved or a major structure, factors of safety tend to be greater than 1.5. That can vary though. And for less critical structures where life safety is not involved, those factors of safety could be as low as 1.3, even 1.1 in some cases where a failure of that slope would not cause damage to property or to people.

That's up to the geotechnical engineer to decide. Some projects it's dictated by code. Such as bridges and highways, you use the AASHTO building code. And they will tell you what factors of safety, or the International Code on Buildings. Although they do not directly address the safety of factor that should be used.

So the geotechnical engineer at that point would say, okay, I've calculated a factor of safety, now what do I have to do to have a long-term safe slope or whatever the design life of that slope is.

Whether it be five years for construction or some permanent, usually between 50 and 100 years, someplace dictated in that range. So what do I have to do to provide a stable system.

To the best of my recollection, that I think summarizes what would have to be done in a typical investigation. I'm sure I did not hit every single point, but that will give you a flavor.

Q. Did S.W. Cole perform a slope stability analysis of this site?

A. Yes, they did.

Q. Did the slope stability analysis that S.W. Cole performed align more or less with what you've described?

A. More or less.

Q. Did you agree with S.W. Cole's slope stability analysis?

A. Yes.

Q. Did Wright-Pierce perform a slope stability analysis at this site?

A. As far as I know, they did not.
Q. Have you visited the Wolfeboro site?
A. I have.
Q. How many times?
A. Twice.
Q. Was that on the 12th of November, 2012?
A. I do not recall the date. It was between the winter, the end of the fall and the winter of 2012.
Q. If you turn to page five of your report, you'll see some dates there under section 2.3. Was it one of those dates?
A. It is one of those three dates. And I do not recall whether it's the -- my best guess would either be the 5th of December or the 14th of December. I do not specifically know which date.
Q. And then is there another date you visited the site?
A. I did.
Q. What was that?
A. That was in 2013. And I do not recall the date of that visit. It was for a subsequent study.
Q. The first time you visited the site in the winter of 2012, who was with you on that site visit?
A. Chris Jones.

Q. Anyone else?
A. Not that I'm aware of.
Q. Was Mr. Jones an employee of Haley & Aldrich?
A. He is.
Q. What's his title?
A. He's, I'm not sure of the exact title, I think he's a senior hydrogeologist.
Q. What was the purpose of your visit to the site that day?
A. To see what the existing, to observe the existing conditions at the site.
Q. Did you take notes of your observations?
A. I did not.
Q. Did you take photographs of the observations?
A. I did.
Q. Do you know if Mr. Jones took notes?
A. I'm not sure. I don't think he did, but I'm uncertain.
Q. What did you observe that day?
A. We went to the top of the slope and observed the RIBs just to see if they were operational. And just to see, to learn the lay of the land, you know, here's where they are feeding in water.
So we walked around the top of the slope where

the RIBs were. We walked to an area of sink hole activity. I'll point to it. Here's the road I believe and it was right in this area over here.

Q. Just to the east of TP 8?

A. Approximately, yes. To the east of TP 8 and to the west of the road. And then we also observed a soil slough, a soil failure, to the east of the road in about the same area.

Q. Did you observe anything else at the site that day?

A. We walked along the slopes and did observe sand boils primarily in those two areas.

Q. So were there areas you observed outside of those areas?

A. I don't remember.

Q. You say you went back in 2013?

A. Correct.

Q. And who was with you on that visit?

A. Chris Jones. The same person.

Q. Anyone else?

A. On that site visit, there were three people there from Wright-Pierce.

Q. Who was there from Wright-Pierce?

A. I don't recall their names.

Q. Mr. Atherton?
A. Yes.
Q. Mr. Brown?
A. Yes.
Q. Mr. Smith?
A. Yes. Thank you.
Q. What was discussed in that site visit?
A. I'm trying to recall that. We started at the top at the RIB site. We walked along the east side of the RIBs to observe the large stockpile of material that exists, that was essentially the cut soils from construction of the RIBs.

And one of the people from Wright-Pierce indicated that these are the leftover materials from the construction. The question was asked could they be used as part of remediation of the slope. I do recall that question.
Q. And what was the answer to that?
A. I said, "I don't know enough about it yet and I'll have to think about it."
Q. Okay.
A. We walked in the areas of, the two areas that I described earlier, to the southwest, to the west of the road, and to the southwest and to the east of the

entrance road where sink hole activity was observed and the soils, sloughing, the soil failure was observed.

And we looked into those areas. We looked at those areas and the question was, "What do you think, can it be fixed?" That was the question.

Q. Who asked you that question?

A. One of the gentlemen from Wright-Pierce.

Q. What was the answer to that?

A. I said most likely yes, but I would have to investigate further.

Q. Have you examined the borings of this site?

A. I have reviewed the borings from the site.

MR. CORKUM: To be clear, the boring logs?

BY MS. CULL:

A. The boring logs for the site.

Q. Mr. Corkum and Donovan and Hatem have indicated there are certain parts of this report that you will be testifying to. I have marked those and they are the only ones that I intend to question you on.

If when we get to them you think they have been improperly allocated to you, please let me know.

A. Okay. My primary focus, as I stated, was geotechnical related aspects and can it be repaired. That was my primary focus. So details on what the RIB

loading was and how that affected ground water levels, I left that to other professionals to assess.

As I said earlier, the slope doesn't care where the water is coming from. So I left that for someone else to assess. And I just looked at what's the conditions and how can we fix it. So that's what I predominantly focused on.

Q. For example, on the executive summary, I am told you will be testifying on page three to points two and three?

A. That is correct.

Q. Have you read the report produced by Mr. Moore?

A. I have not.

Q. Have you read the second Fuss & O'Neil report?

A. Do you have it here?

Q. This is my copy.

A. I have not.

Q. Have you read the report by Professor Benoit?

A. I have.

Q. Did you agree with the contents of that report?

A. I'd have to -- point by point I can't say yes. I'd have to go through it point by point. I thought the

report was thorough, but I can't say I would agree with it without additional review.

Q. So is it true to say that there are some parts in here you might agree with and some parts that you don't agree with?

A. That would be a true statement. It is possible, yes.

Q. Professor Benoit says, "If Wright-Pierce conducted a thorough investigation of the soil characterization and included this information in their model, the damage to the site as a result of high groundwater levels and seepage forces to the down stream slopes, wetlands and brooks would have been identified and avoided." Do you agree with that statement?

MR. CORKUM: Objection.

BY MS. CULL:

A. Can I read it?

Q. Sure. Just the yellow.

MR. CORKUM: If you need to read the whole report to comment on one sentence, do so.

BY MS. CULL:

A. I'd have to think about that and I would have to, that's a petty strong statement I think that's made. I think I would have to figure out what else is here and

see if I would say yes or no to that statement. Are you looking for a yes or no answer?

Q. I'm going on the fact you said you read the report. I'm just looking into the summaries and conclusions and wondering whether you agreed with that?

A. I would have to, to make a statement that I agreed with that particular statement, I think I would have to review this in more detail. It's a pretty general statement. I would have to, as I said, review the entire report again.

And I think that would be a pretty bold statement for a geotechnical engineer to make, just based on an investigation you could identify every potential area that could have problems.

That's a pretty bold statement the way he put it. I can't say yes or no without re-reviewing the information contained therein.

Q. The S.W. Cole report says that the recommended loading for the site is 340,000 gpd, does it not?

MR. CORKUM: Objection.

BY MS. CULL:

Q. I'm giving you a copy of Exhibit 21, which is a copy of the S.W. Cole report.

A. Would you restate the question?

Q. The S.W. Cole report recommended that the capacity of the site, no more than 340,000 gpd be discharged to the site.

MR. CORKUM: Objection.

BY MS. CULL:

A. Without me getting through all of it, could you, is there someplace you have noted?

Q. If you look at E4 at the bottom of the page.

A. Okay.

Q. I believe S.W. Cole recommends that the flow to RIBs one, two and three be reduced to 250,000 and the flow to RIBs four and five be reduced to 50,000.

A. Can you restate the question?

Q. What is your understanding of S.W. Cole's initial loading recommendations for the site?

A. I can't -- I think as I stated, when it came to loading the site and groundwater levels, I did not get into the details of that for my evaluation. So I really can't comment on that.

Q. Can you comment on the basis of S.W. Cole's recommendation, which I understood to be a slope stability analysis?

A. I understood that S.W. Cole, what I've read of what they have done, they performed a slope stability

analysis. And they were looking for factors of safety that were above the 1.3, which is prudent, and then they were assigning specific water loading values to those factors of safety, which corresponded to particular groundwater levels. That approach seems reasonable to me.

Q. I'm looking further up the page, the first full bullet where S.W. Cole finds that there was an acceptable factor of safety at 300 gpd and unacceptable for shallow failures for water levels at 400,000 and 500,000.

A. I'm just rereading what's here. Are you asking me do I agree with that? It does state that.

Q. If you agreed with that?

A. Yes.

Q. Mr. Kastrinos testified yesterday that the S.W. Cole analysis was performed on the original topography at the site. Is that correct? Do you know what the S.W. Cole analysis was based on?

A. I don't recall.

Q. Do you believe that it wasn't performed on the original topography of the site?

A. I don't recall.

Q. Could the S.W. Cole analysis have been

performed back in 2007 when the site was being analyzed?

A. Can you state that again?

Q. Could the S.W. Cole analysis, the static slope analysis, could that have been performed in 2007?

A. Could this have been performed in 2007? Yes.

Q. So if this had been performed in 2007 and the risk to the slopes of failure at levels above 300 gpd had been identified, could the damage to the site have been avoided if the loading rates had been lowered?

A. Possibly.

Q. Why do you say possibly?

A. I can't speak for another geotechnical engineer. I can't speak for S.W. Cole that they would have assessed all the areas of the site needing investigation.

Q. Have you done a slope stability analysis at the site?

A. Yes.

Q. And did you analyze the site in its existing condition?

A. Yes.

Q. What slope stability results did you find?

A. I can put it this way. It was similar to what S.W. Cole found.

Q. If your analysis had been performed in 2007 and the capacity of the site had been adjusted to reflect the slope stability concerns, could the damage to the site have been avoided?

MR. CORKUM: Objection. Are you saying if he were part of the team and part of the investigation and had run the analysis? Who is the running the analysis?

MS. CULL: No one ran the analysis. That's why we are here.

BY MS. CULL:

Q. If this analysis had been run --

MR. CORKUM: By?

MS. CULL: By anyone.

MR. CORKUM: If I had run it, it wouldn't have helped it.

BY MS. CULL:

Q. If Wright-Pierce had run it?

A. If Wright-Pierce or -- Wright-Pierce wouldn't run a slope stability analysis.

Q. If they hired someone?

A. If they hired a competent geotechnical engineer, I'd say there's a high probability that the site damage could have been avoided.

Q. And are you aware that as part of this project, the investigation into Wolfeboro's disposal requirements, Wright-Pierce hired S.W. Cole to work on this project?

A. Am I aware that they hired S.W. Cole?

Q. Yes.

A. Yes.

Q. Have you spoken to S.W. Cole in the process of preparing the report?

A. No.

Q. Have you spoken to them at all regarding this project?

A. No.

Q. Did you read the contracts between Wright-Pierce and the town of Wolfeboro in preparing your report?

A. I did not.

Q. Did you review the pleadings in the case?

A. Can you elaborate on that? The actual --

Q. The Complaint, the Answer to the Complaint and other discovery, written discovery that's been exchanged?

A. I think all, I'm not familiar with all legal proceedings. All I've read is the actual Complaint

itself. I did not study it, but I read through it just to try to understand.

Q. Did you read the Amended Complaint?

A. I do not know.

Q. How did you become involved in this case?

A. Internally within Haley & Aldrich, Mr. Kastrinos was looking for a senior level experienced geotechnical engineer to help out who would be able to assess slope stability and remedial schemes and was also a licensed engineer in New Hampshire.

Q. Did you have anyone assisting you on this project?

A. With the geotechnical assessment, yes.

Q. Who was that?

A. Megan Hatton.

Q. Is she a Haley & Aldrich employee?

A. She is.

Q. Did you talk with any of the Wright-Pierce employees in the process of drafting this report?

A. No, I did not.

Q. Did you speak to Mr. Jesse Schwalbaum in the process of preparing the report?

A. No.

Q. Did you have any meetings with anyone from

Wright-Pierce?

A. No.

Q. I had --

A. Can I qualify the last answer? We did meet in the offices of Donovan Hatem at one point. I don't remember the date, but there were Haley & Aldrich and Wright-Pierce people there. It was a general meeting for discussion.

Q. Is this the Haley & Aldrich report, Exhibit 36?

A. Do I really have to flip through the pages to -- yes.

Q. There are no rogue pages in there. David would be all over that. As I said earlier, you have been identified as testifying to certain sections of the report. Again, if you believe for any reason that these are not the sections that you should be talking to, just let me know.

A. Okay.

Q. I would like you to turn if you would to page three.

A. Okay.

Q. You say there halfway through bullet two that you believe that the RIB system likely could be used at

current loading rates and likely higher loading rates. What do you understand to be the current loading rates?

A. I would defer that question to the people who, the other professionals in our company who actually look into the current loading rates. And that would be Mr. Kastrinos and Mr. Jones.

Q. Then you say there, "Likely higher loading rates." What are those higher rates that you're referring to there?

A. It was my understanding that it was the wish of the town to have a loading rate on the RIBs of 600,000 gallons per day.

Q. Are you aware that the groundwater permit that was issued for this RIB project was originally issued for a loading rate of an annual average 600,000 gpd?

A. I'm not sure, not certain of the details.

Q. So when you're referring to this as the higher loading rate is 600,000 gpd, is Haley & Aldrich referring to an annual average of 600,000 or a daily cap of 600,000?

A. I don't know the answer to that question.

Q. Has Haley & Aldrich, I'm looking at the content of bullet two only, has Haley & Aldrich analyzed the maximum flow that could be discharged to the site?

MR. CORKUM: On a daily basis or yearly basis?

MS. CULL: On any basis.

BY MS. CULL:

Q. On any basis, on an annual average basis, on a monthly basis, on a daily basis?

A. Our analysis was done after this report -- a more intensive study was done after this report was released.

Q. But I'm only talking about this just for this report.

A. Did we look at something higher is the question? My recollection is that we did not.

Q. What did you look at for this report?

A. From a loading rate perspective?

Q. Right.

A. My recollection is we did look at the 600,000 gallons per day and lower.

Q. What are you referring to as engineered mitigation?

A. Engineered mitigation is described in other parts of this report. And it would consist of essentially two things. One is diversion of groundwater to reduce hydraulic gradient. And armoring of slopes.

Those are the engineered mitigation. And they are in other parts of this report.

Q. Which other parts of this report are they in?

A. It's the sentence after we were looking at. More details are given in the report. But if you go to the next sentence, the sentence also says, "What the engineering mitigation means are by diverting your intercepting groundwater up gradient of the RIBs or by reinforcing the slopes by providing subsurface drainage gradient up gradient of the seepage locations by diverting the intercepting groundwater up gradient of the RIBs or by a combination of these approaches."

So this bullet summarizes what the engineered mitigation is. And there are more details. Do you want me to find them?

Q. Yes. Let's identify them now and we can return to them.

A. Page 25, the last paragraph starting with, "Conceptually slope mitigation could involve the following."

Q. So these were Haley & Aldrich's proposed remedial measures, correct?

A. Correct.

Q. On page 25, the first one is, "Regrading the

slope surfaces affected by erosion and instabilities." Please describe that work for me.

A. That work would consist of moving soil in the areas that have been affected by some of the erosion that is observed, the sink hole activity. So you're going to move soil from higher locations into these lower locations that have been impacted.

Q. The second, "Stabilizing the slopes," can you describe that for me?

A. In this stabilization, surface armoring is used along with potential for using a graded filter beneath the surface armoring. And this serves, actually it serves two purposes.

The first purpose is to mitigate any piping of materials because you're putting a graded filter with weight on top of it. So it's going to hold those soils down in place.

And the second purpose that this serves is to provide a higher factor of safety for your slopes by putting weight on the resisting end of a slope stability assessment. So it does two things.

Q. Did Haley & Aldrich calculate that if these measures were taken, the site could dispose of 600,000 gpd without the slopes collapsing?

A. We did. We made an assessment for that particular loading rate, which corresponds to a certain groundwater level. And we concluded that it could be repaired by these methods.

I'll qualify that in saying that additional studies would need to be undertaken in that the analysis would be considered preliminary.

Q. Did Haley & Aldrich for this report identify where on the sites this stabilization of slopes would have to be performed?

A. For this report, no.

Q. Say without identifying where the remediation would take place, how were you able to say that the site could dispose of 600,000 gpd?

A. The purpose of it wasn't to, the purpose of our statement was one of feasibility as opposed to -- in order to answer a question like you asked, you would have to go and do a full design to say we are going to treat the site in these particular areas, which you have to identify in advance.

The purpose of this particular report was just to look at the feasibility. And it would be considered preliminary until maybe additional information could be gathered about the site for geotechnical purposes.

Q. Is this mostly theoretical?

MR. CORKUM: Objection.

BY MS. CULL:

A. Define theoretical.

Q. Theoretical in that you haven't really examined the site to figure out whether this would work, but in theory these measures should work?

MR. CORKUM: Objection.

BY MS. CULL:

A. It's based on two things. One is theoretical and the second is our experience with similar sites where the mitigation measures we're presenting here and presented in this report are very common stabilization techniques for other slopes of similar characteristics.

Q. Let's work through the rest of these and we'll return to that. The next bullet you have here in 25 is, "Protecting the slope from surface erosion by seepage channelization, vegetation or similar methods." What do you mean by that?

A. There's two mechanisms of surface erosion. One is from below. And that's soil bubbling up from below. And that erodes the surface. The second one is from precipitation, snow melt or rain. And at this particular site, the second mechanism doesn't appear to

be applicable.

The idea would be to apply some surface treatment to the soil to mitigate erosion of those materials. It's a very common engineering practice.

Q. Let's deal with the last one. "Introduce groundwater seepage to the down gradient areas through levels," what's that?

A. Instead of having a very concentrated flow which causes an erosion channel to form, the idea would be by placing an engineered material, stone, and combination of stone and geotech style, what you can accomplish, you can accomplish a very narrow flow.

You can make the water go through a very tortuous path, and that's the hydrogeologic term they use, and have the load, for example, instead of over a one foot area, it could be over a 50 foot area with the same flow. So you can imagine that flow spreading over a very large area.

Q. Would these spreaders go all the way down to Nineteenmile Brook?

A. It would have to be engineered. I don't know.

Q. So are you able to say in this report where you would put those spreaders?

A. No, we are not able to say that.

Q. When you say that it's feasible or actually likely that it could be used at current rates and likely higher rates, does that expert opinion take into account permit requirements?

A. The second report, which is off the table, took into account permit requirements.

Q. But did this report take it into account?

A. Other professionals prepared the bulk of this report. I'm not certain at the present time whether we addressed how many.

Q. Let's stick with bullet two and your statement that anticipates that the RIB system could likely be used at current loading rates and likely higher rates by implementing engineered mitigation. Did this statement take into account DES permitting requirements?

A. I'm not certain.

Q. When you drafted this section, had you looked at the DES permit requirements?

A. I did not.

Q. Did you draft this section?

A. Not solely.

Q. Were you asked to give the Haley & Aldrich opinion as to whether the site could likely be used at current loading rates and likely be used at higher rates

by implementing the engineered solution?
A. Yes.
Q. Did you give an opinion on that?
A. Yes.
Q. Is that opinion in this report?
A. Yes.
Q. When you made that opinion, did you take into account the DES permit requirements?
A. I was depending on other professionals for that opinion.
Q. When you were giving this opinion, did you ask someone whether this would be permitted by the DES?
A. I did not.
Q. What were you relying on when you were giving this opinion?
A. I was relying on their opinion whether it could be permitted.
Q. Did you ask them about that?
A. I did not ask them.
Q. Did you discuss permitting requirements with anyone when you made this opinion that it could be likely used at current loading rates and currently at higher rates?
A. No.

Q. Is it true to say that this opinion is not based on the DES permit requirements?

MR. CORKUM: Objection.

BY MS. CULL:

A. That was for other professionals at Haley & Aldrich to review and not me.

Q. Do you know if they did?

A. I don't know.

Q. Did you ask anyone?

A. No.

Q. Do you understand, Mr. DiGenova, the Fuss & O'Neil and Professor Benoit opinion that the site must be abandoned takes into account the DES permit requirements?

A. I don't recall.

Q. When you looked at the reports, did you notice they cited DES permit requirements?

A. I don't recall.

Q. What's the basis for your statement here that the Fuss & O'Neil conclusion is unsupported and unreasonable?

A. Where are you reading from?

Q. The first line of bullet two?

A. You're saying what's the basis for that

statement?

Q. Yes.

A. The basis for that statement would be that in order to make a statement that is unsupported and unreasonable, an engineering firm would have to look into what are potential remedial schemes that could be undertaken to fix the site.

Q. Are you aware Fuss & O'Neil and subsequently Professor Benoit have opined that they don't believe that any potential remedial schemes will be permitted by the DES?

MR. CORKUM: Objection.

BY MS. CULL:

A. I am not aware.

Q. So if someone said this site has to be abandoned because the DES will not permit any fix, would that be an unsupported opinion?

MR. CORKUM: Objection.

BY MS. CULL:

A. From what I know of what DES has stated to make the site not permitable is that there's a point source discharge at the site. I am not an expert in dealing with permits or point source discharges. However, I do know what they are.

And I do know that there are certain engineering techniques that can be applied so point source discharges are not, so you do not get a point source discharge.

Q. But that was not the question. The question was if someone's opinion is based on their interpretation of a DES regulation, in your opinion is their opinion unsupported?

MR. CORKUM: Objection.

BY MS. CULL:

A. I'm restating the question. Is their opinion unsupported? No.

Q. And accepting that you may not agree with their view, but if their opinion is based on their interpretation of the DES regulations, is that per se an unreasonable opinion?

A. In our opinion, it is unreasonable if they have not investigated alternatives.

Q. Do you know whether they investigated alternatives?

A. I am uncertain. It was for other professionals at Haley & Aldrich to conclude.

Q. Let's take a look at the third letter. You say here, "If the geotechnical analysis of the potential

effects of slope seepage had been conducted during the design process, a geotechnical engineer would have likely concluded there was potential for erosion and slope instability."

Mr. DiGenova, if slope stability analysis had been performed by Wright-Pierce in 2007, would it have been obvious that there was going to be slope instability with flow rates of 600,000 gpd?

A. You mean Wright-Pierce or their subcontracted qualified geotechnical engineering firm?

Q. Correct.

A. I would say most likely.

Q. Would they have concluded there was going to be slope instability at flow rates any higher than 400,000 gpd?

A. Most likely.

Q. Let's move on. It says, "However, in Haley & Aldrich's opinion, this would not have been a requisite reason to abandon the site for the following reasons."

Mr. DiGenova, have you discussed this project with anyone from the town?

A. I have not.

Q. Do you know whether the town would have gone ahead with the purchase of the Wolf 1A site if it had

known that this site could only dispose of between 300 and 400,000 gpd?

MR. CORKUM: Objection.

BY MS. CULL:

A. I have no idea.

Q. Have you discussed with Wright-Pierce whether they had any plan for armoring the subsurface at the site prior to the operation of the RIBs?

MR. CORKUM: Objection.

BY MS. CULL:

A. No.

Q. Have you seen anywhere in the documents you've been shown in this case that Wright-Pierce as part of its design planned to perform any slope stability work on the site prior to the operation of the RIBs?

A. Not that I'm aware of, no.

Q. Have you seen anything from Wright-Pierce where they planned to monitor the site after the operation of the RIBs?

A. No.

Q. Let's turn to page 15. It was indicated yesterday by Mr. Kastrinos that you were the gentleman to opine on the third sentence of 4.2 in the bold. "Based on on-going damage currently occurring to the

facility at a loading rate of only 275,000 gpd, the site cannot even sustain a 275,000 gpd loading rate."

This is a statement that has been extracted from the Fuss & O'Neil report. What is the basis of that statement?

MR. CORKUM: The basis of the Fuss & O'Neil statement?

MS. CULL: The basis of Haley & Aldrich's objection to that.

MR. CORKUM: The basis for the next paragraph?

MS. CULL: Only in respect of that sentence.

BY MS. CULL:

A. Where does the sentence start? Oh, okay.

Q. What is the basis of Haley & Aldrich's objection to that statement?

A. The basis for an objection to that statement would be two things, preliminary engineering assessment and our experience with water levels and remediation in other similar slopes.

Q. That preliminary engineering, for this report is that the engineering that you pointed out on page 25?

A. Yes.

Q. When you were preparing that engineering, did you take into account the requirements of the DES regulations and Clean Water Act?

A. I left the DES regulation aspects to other professionals in our organization.

Q. Did you discuss those requirements with them when you opined that the site can take a higher flow rate?

A. I did not.

Q. So did you make that statement without taking into account the DES regulations and the Clean Water Act requirements?

A. Are you asking I personally or Haley & Aldrich?

Q. You've testified that you personally did that and you did not speak to anybody else about the requirements of the DES regulations or the Clean Water Act.

So unless you can tell me that someone else looked at that and said it complied with the DES requirements and you wrote that and you didn't speak to them, I'm asking when you made that opinion, gave that expert opinion, did you take into account the NHDES requirements or the requirements of the Clean Water Act?

A. No.

Q. Let's move down to 4.3. It says here, "Wright-Pierce failed to recognize potential slope stability and seepage issues during the site selection phase." Do you agree with that statement?

MR. CORKUM: Objection.

BY MS. CULL:

A. Well, it's Fuss & O'Neil's conclusion No. 3, if that's what you're asking. That's accurate. It's Fuss & O'Neil's -- do I agree they failed to recognize -- yes, I agree.

Q. Do you agree that Wright-Pierce failed to perform a thorough geotechnical analysis of the selected site?

A. Yes.

Q. Let's turn to page 20, please. I have been told that you are testifying as to conclusion six?

A. Yes, that is true.

Q. I believe that you are not opining on the standard of care statement there in the second line. Is that true?

A. That is true.

Q. Mr. DiGenova, in the second paragraph, it says, "Had the town accepted Wright-Pierce's

recommendation to engage S.W. Cole immediately after observing evidence of instability, then the unstable slopes may have been remedied in a timely manner."

Who told you that the town did not accept Wright-Pierce's recommendation to engage S.W. Cole?

A. As I understand what happened, there was a two year delay between the time Wright-Pierce suggested doing a geotechnical investigation and to the time when it actually was done. As I understand, there was a delay.

Q. Do you know why there was a delay?

A. I do not know.

Q. Did you ask anyone why there was a delay?

A. No.

Q. Do you know whether the DES would have permitted any remediation of the slope?

A. I do not know.

Q. Fuss & O'Neil have opined that the site is a total loss, correct?

A. Yes.

Q. And Professor Benoit has opined that the site is a total loss, correct?

A. Yes.

MR. CORKUM: Objection.

BY MS. CULL:

Q. What's the basis for the statement that the majority of such costs would have been part of the town's original construction expenditure if slope mitigation had been built into the original design?

A. What's the basis for that statement?

Q. Yes.

A. If an appropriate geotechnical investigation had been done at the time of siting, stabilization and other control measures could have been implemented on the slope at that time.

Q. Would that have increased the cost of the project?

MR. CORKUM: I think you cut him off.

BY MS. CULL:

A. And we wouldn't have seen the damage to the site that we see today.

Q. And would that have increased the original cost to the project?

A. Almost certainly.

Q. Do you know whether the town would have gone ahead with the project if the project costs had increased?

A. I do not, no.

Q. Did Wright-Pierce tell the town that these additional slope stabilization measures were necessary?
A. I do not know.
Q. Have you seen any evidence that they told the town it would be necessary?
A. I have not seen any evidence of that.
Q. Have you read the phase three report?
A. Can I see it?
Q. Exhibit 14.
A. No, I have not.
Q. So you don't know what representations Wright-Pierce made to the town regarding the capacity of the site?
A. I do not. That was left for other professionals in the organization.
(Brief recess.)
BY MS. CULL:
Q. Let's turn to page 22, please. On page 22, section five of the Haley & Aldrich report?
A. Okay.
Q. You say in the first paragraph, "Wright-Pierce had recommended to the town that a geotechnical study be conducted." Who told you that?
A. That was written by others.

Q. Do you know anything first hand about what Wright-Pierce may have recommended to the town or what the town may have said to Wright-Pierce in respect to the S.W. Cole's geotechnical analysis?

A. I do not.

Q. Are you able to testify at all about this first paragraph?

A. No.

Q. Who would testify to that?

A. Mr. Kastrinos.

MS. CULL: At the moment, I think it's unlikely I would bring Mr. Kastrinos in for this but we'll reserve our position.

MR. CORKUM: I understand.

BY MS. CULL:

Q. Toward the bottom of that page, you refer to the town commencing operation at an average loading rate. Are you able to testify to that or was that information provided to you by others?

A. By others.

Q. Is that Mr. Kastrinos as well?

A. Mr. Kastrinos.

MS. CULL: Same reservation.

BY MS. CULL:

Q. Continuing on to the top of page 23 there, it continues to talk about loading rates and overloading. Is that also Mr. Kastrinos?

A. Yes.

Q. Starting on the paragraph Field Data, is that something you are able to testify to?

A. I can speak to hydraulic gradients as they apply to soil piping. I can speak to that portion of the paragraph. References to S.W. Cole in the 2008 letter I cannot say. I do not know.

Q. That first sentence there, would that be Mr. Kastrinos as well?

A. Yes.

Q. Did you do the estimate of the hydraulic gradient between the RIBs and the central wetland area?

A. The work was done -- I did review that information, but that was done by Chris Jones.

Q. At your command as it were?

A. Yes.

Q. Can you tell me what Haley & Aldrich found there?

A. I can briefly summarize it. Haley & Aldrich had calculated hydraulic gradients exiting the slope under different RIB loading rates. And we compared that

to a static condition, a non-RIB loading condition or a preconstruction condition, which should be similar, not exactly the same but similar.

And we concluded that under this higher water table condition at the loading rates indicated in the report, we had 20 percent or higher hydraulic gradients in the soils.

Q. And what was the cause of that?

A. The increased hydraulic gradients was caused by an increase in groundwater level.

Q. And was it impacted by how much was discharged to the RIBs?

A. Yes.

Q. The last sentence on the page, "Regardless of the specific causes, the net effect of an increased hydraulic gradient during high water table conditions is increased seepage rates which can exacerbate soil piping such as occurred at the site." Can you simplify that for me?

A. What it says is that under higher water tables leads to increased hydraulic gradients which can lead to soil piping at the project site. There's a cause and effect.

Q. That high water table, what are the causes of

of that, what causes a higher water table?
A. The introduction of surface water.
Q. Okay.
A. Whether it be from precipitation or RIB loading.
Q. Did Haley & Aldrich study what rates of flow would cause the soil piping?
A. Yes.
Q. What is the lowest rate of flow that would cause soil piping?
A. That is not known.
Q. What did you study?
A. Based on the rates of flow -- this goes back to now, just to clarify, our second report.
Q. I'm only --
A. You're only interested from this report?
Q. Yes.
A. Because we did study those. I think the feeling was that elevated water tables, higher rates of flow, led to increased soil piping. And I don't think we ever put a number to exactly what flow would cause the piping, specifically the piping.
Q. Can that be done?
A. Yes.

Q. You said you studied the conditions at the site preoperation of the site?
A. Yes.
Q. So it is theoretically possible to look at the original condition of the site and figure out what level of flow would stop the soil piping?
A. Theoretically, yes.
Q. When you were performing these analyses, were you using the model?
A. Other professionals were, yes.
Q. So Haley & Aldrich was?
A. Yes.
Q. And what model were you using?
A. I don't know specifically off the top of my head, but it should be presented in the report.
Q. Was it a model that Haley & Aldrich had built from scratch or was it based on the Wright-Pierce model?
A. I don't know. Are you talking about a model or modeling at the subsurface, are you talking about a piece of software or the actual model of the site? Can I get clarification on that?
Q. I would like to know whatever you used, whether you used both or whether you only used the software. What did you use to --

A. As I understand, we used a program called Seep W. That's just my understanding. I don't use it myself as a geotechnical engineer. It's a hydrogeologic program.

Q. But you yourself did a slope stability analysis of the site, correct?

A. Can you repeat that?

Q. Did you yourself do the slope stability analysis?

A. I had a junior engineer --

Q. Under your supervision?

A. Yes.

Q. Turn now to page 24. There are comments here about the town's alleged failure not to follow Wright-Pierce's recommendations. Is this something you're going to testify to?

A. Is it the paragraph starting with, "If the town had followed?"

Q. No, right at the top of the page. "The town did not follow," all the way down to, "regarding."

A. No.

Q. Who would that be?

A. That would be John Kastrinos. I could speak of the last sentence in the paragraph that starts, "If

the town had followed Wright-Pierce's recommendation."

Q. "As noted above, such observational methods are not uncommon," that one?

A. Correct. If you're interested in that, I can talk to that.

MS. CULL: I'll reserve my right to call back Mr. Kastrinos.

BY MS. CULL:

Q. With regard to that sentence, "As noted above, such observational methods are not uncommon in geotechnical engineering and they can be an effective way of implementing a design without unnecessary cost," do you know whether, and again tell me whether this is Mr. Kastrinos, have you seen anything from Wright-Pierce where they told the town to incrementally start up the RIBs?

A. That would be a question for John Kastrinos. I am not aware of any.

Q. It says here, "Such an approach during active loading at the RIBs should have comprised groundwater level monitoring, monitoring of the slopes and addressing seepage issues if and when they led to an erosion at the slope." Are you speaking to that?

A. Where are you?

Q. Right above.
A. I could speak to that to some extent.
Q. Do you know whether Wright-Pierce was monitoring the site following the operation of the RIBs?
A. The only monitoring that I'm aware of is the monitoring of the groundwater levels as the RIBs were loaded.
Q. Who was doing that?
A. I believe that was Wright-Pierce.
Q. Did that monitoring indicate to Wright-Pierce that there was a problem with the site prior to the collapse of part of the site in April '09?
A. I do not know.
Q. Do you know if Wright-Pierce was doing any other monitoring of the site following the start-up of the RIBs?
A. Not that I'm aware of.
Q. Do you know whether Wright-Pierce had told the town to monitor the site following the operation of the RIBs?
A. I do not know.
Q. Would it have been prudent to have monitored the site following the operations of the RIBs?
MR. CORKUM: Objection.

BY MS. CULL:

A. You stated would it be prudent, but as far as I know, they were monitoring the groundwater levels in the slopes. So they were monitoring, so they were doing something prudent.

Q. I'm reading, "They were comprising groundwater monitoring, monitoring the slopes and addressing seepage issues." Was Wright-Pierce monitoring the site or addressing seepage issues?

A. I don't know.

Q. Would a prudent engineer have been monitoring the slopes and addressing seepage issues?

MR. CORKUM: Objection.

BY MS. CULL:

A. If you said it was a prudent geotechnical engineer, I would say yes, that would be the prudent thing to do. I'm not sure if Wright-Pierce did that or not. I just don't have enough information to know that information.

Q. But a prudent geotechnical engineer would have done that?

A. Yes.

Q. And Wright-Pierce was the engineer of record for this site, correct?

A. Correct.
Q. And the town had hired Wright-Pierce to identify and design this site, correct?
A. As far as I know.
Q. So are you saying that Wright-Pierce did not need to do everything that a prudent geotechnical engineer did because in your opinion Wright-Pierce isn't a geotechnical engineer?
A. Could you rephrase that?
Q. Sure. The town hired one engineer for this site, correct?
A. As far as I know.
Q. So are you trying to say that even though you would say a prudent geotechnical engineer should have performed the monitoring of the slopes and addressing of the seepage, you don't believe that Wright-Pierce was required to have done that?
A. I cannot speak for a wastewater engineer. I can only speak for a geotechnical engineer. I can't speak for them.
Q. But you've provided an expert opinion on their behalf, correct?
A. Yes, I am. I'm a geotechnical engineering.
Q. Are you commenting on whether they met the

standard of care for a prudent engineer who had been hired to identify the capacity and design this RIB system?

MR. CORKUM: Objection.

BY MS. CULL:

A. I cannot speak to the field of wastewater engineering. I can only speak for my own.

MS. CULL: No further questions. I reserve my right to recall Mr. Kastrinos on issues Mr. DiGenova could not testify to.

(Whereupon the deposition was concluded at 12:04 p.m.)

C E R T I F I C A T E

I, JOHN DIGENOVA, do hereby certify that I have read the foregoing transcript of my testimony, and further certify that said transcript is a true and accurate record of said testimony.

Dated at _____ this _____ day of _____, 2013.

_____

JOHN DIGENOVA

Signed under the pains and penalties of perjury.

C E R T I F I C A T E

COMMONWEALTH OF MASSACHUSETTS

PLYMOUTH, SS.

I, Patricia M. Haynes, a Notary Public in and for the Commonwealth of Massachusetts, do hereby certify:

That JOHN DIGENOVA, the witness whose testimony is hereinbefore set forth, was duly sworn by me and that such testimony is a true and accurate record of my stenotype notes taken in the foregoing matter, to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal this day of November 2013.

Patricia M. Haynes, CSR
Notary Public

My commission expires June 30, 2017

ERRATA SHEET

Please indicate the page number and line number along with the correction.

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JOHN DIGENOVA

COPLEY COURT REPORTING
The Mercantile Building
71 Commercial Street #700
Boston, Massachusetts 02109
617-423-5841

DATE: November 26, 2013

TO: Donovan & Hatem, LLP
ATT: David H. Corkum, Esquire
53 State Street
Boston, Massachusetts 02109

IN RE: Wolfeboro VS Wright-Pierce

Dear Mr. Corkum,

Enclosed herewith is your copy of the transcript of the deposition of JOHN DIGENOVA, taken on Friday, November 15, 2013, in the above-mentioned case.

In compliance with stipulations, the witness will read the transcript and sign the signature page and errata sheet and return them as soon as possible to the respective attorneys involved. Any changes or corrections are to be made separately on the enclosed errata sheets signed by the witness.

If the witness has not read and signed the transcript and returned it to the parties involved within thirty days, the transcript will go in as testified to under oath.

Thank you for your anticipated cooperation. If you have any questions, please feel free to call on me.

Very truly yours,

Patricia M. Haynes

CC: Rhian R.J. Cull, Esquire