#### APPENDIX B

### **DEPOSITION-BASED ARGUMENTS**

This Board has every reason to look askance at arguments based on depositions in connection with *City of Dover v. New Hampshire Department of Environmental Services*, the New Hampshire Superior Court action brought by the Coalition challenging the *Great Bay Nutrient Report*. EPA objects to the Coalition's arguments, misleadingly framed as 'facts,' 'admissions,' 'confirmations,' 'concessions,' and the like ("Deposition Arguments"), on numerous grounds.

### A. Deposition Arguments Fail to Meet Threshold Procedural Requirements

### 1. Deposition Arguments Are Not Preserved

The Deposition Arguments have not been preserved for review, although they were reasonably available and ascertainable during the public comment period. *See* 40 C.F.R. §§ 124.13, 124.19(a). The Coalition has merely asserted that "all of the information filed by the Coalition, after the close of the public comment period, was information not available when the permit record closed." *Pet.* at 30. The Coalition does not explain why the information was not "reasonably available" during the public comment period. The "facts" adduced over the course of the depositions could have been adduced by the Coalition has been involved in matters relating to the development of the *Great Bay Nutrient Report* since at least 2009. In questioning the deponents, the Coalition appears to have relied almost exclusively on materials pre-dating the public comment period, including studies, analyses, draft reports and correspondence that preceded the comment period by years. The Coalition could simply have posed the many

questions it had and pursued at an earlier time its various theories through correspondence with the deponents and their institutions (or could have initiated its litigation earlier—the *Great Bay Nutrient Report* was, after all, published in 2009). Timing with respect to these issues was a matter entirely of the Coalition's own choosing. This is not a case, in other words, where the information could not have been obtained or could not have been brought into existence in time to raise the argument within the prescribed period for public comments. Thus, the Deposition Arguments are waived.

#### 2. Deposition Arguments Are Not Raised with Requisite Specificity

The Deposition Arguments additionally fail to meet the threshold requirements for demonstrating a basis for review, as in almost all instances, they are not raised with requisite specificity. A significant portion of the Coalition's assertions are overly-broad conclusions, *e.g.*, "the 2009 Nutrient Criteria document was based on fundamentally flawed scientific conclusions at odds with the available water quality data." *Pet.* at 30. In support of generic conclusions of this sort, the Coalition typically cites to deposition testimony (literally at times to hundreds of pages as a whole), without identifying exactly which utterances from the depositions support its specific contentions. In one instance, Footnote 32 of the Petition cites to Exhibits 12-18 of the Petition, and at a later point, on Page 31, cites to "Exhibits 12, 15, and 18." Exhibit 12 contains the full depositions of each of three deponents. Exhibit 15 consists of the Coalition's own narrative statement, peppered with numerous references to many pages of deposition testimony, embodying all sorts of conclusions improperly drawn by the Coalition from the actual record for the permit and the totality of the deposition testimony. Exhibit 18 contains certain deposition

transcript excerpts (with numerous highlighted sentences),<sup>1</sup> but includes more than 30 pages of testimony and some graphs. Again, the Petition fails to identify with sufficient specificity exactly which of the utterances (even the highlighted ones) contained in Exhibit 18 support or "confirm" its specific assertions and precisely how they do so. The Coalition's overly-broad assertions and conclusions, when combined with the Coalition's often vague citations, render it difficult to evaluate precisely and accurately the Coalition's specific claims.

## B. The Deposition Arguments Are Almost Uniformly Misleading and Do Not Demonstrate Reviewable Error or an Important Policy Issue Warranting Review

The Coalition's use of deposition materials *is* argument, not merely recitations of previously unavailable facts, and is unpersuasive argument at that. EPA's substantive objections to the Deposition Arguments fall into four categories.

## 1. The Coalition Makes Misleading Use of Its Own Conclusions Drawn From the Depositions Rather Than Deponents' Actual Statements

The Petition frequently cites to a portion of a particular deposition transcript in which the Coalition's legal counsel attempts to elicit from the deponent a "statement of fact" about the Great Bay Estuary. The Petition then takes the deponent's statement, draws its own scientific and/or factual conclusions from that statement, and then asserts that the *deponent* testified to, "admitted" or "confirmed" the Coalition's inferred and overly-broad conclusion. The Coalition thereby creates the misimpression that the

<sup>&</sup>lt;sup>1</sup> The Coalition's prefatory note to Region 1 in Exhibit 18 states that "In earlier correspondence we provided full copies of deposition transcripts and related cite references that addressed critical admissions confirming that there is no objective scientific basis to conclude TN caused the changing eelgrass populations in the system or periodic low DO in the tidal rivers. These transcripts also confirmed, *inter alia*, the deficiencies in the 2009 criteria, EPA's peer review and that TN reduction could not materially improve transparency in this system. As a courtesy, we are providing selected excerpts of the transcripts, with highlights, to ensure that there is no misunderstanding with regard to the statements made by DES which confirm that the Coalition's positions are well supported."

deponent himself "admitted," "asserted" or "confirmed" the Coalition's broad scientific conclusion or position.

One notable example of this distortion appears in Exhibit 15 to the Petition, which contains numerous references to deposition testimony and is often referenced by the Petition in support of the Coalition's claims. (Exhibit 15 consists of the Coalition's "supplemental comments," dated August 30, 2012, regarding the draft NPDES permits EPA proposed to issue to the cities of Dover, Exeter and Newmarket, New Hampshire.) On Page 6 of Exhibit 15, under the heading "Post 2006 Eelgrass Population Decreases in Great Bay and Lower Piscataqua River Could Not Possibly Have Been Due to Nitrogen," the following sentence appears with a citation to Mr. Philip Trowbridge's testimony: "NOTHING in the record at that time or since then shows that nitrogen had anything to do with the dramatic eelgrass decline in 2006/2007. (Trowbridge Dep. at 370-372)." On the cited pages of the deposition, Mr. Trowbridge is questioned about a large, relatively quick decrease in eelgrass acreage in Great Bay during 2006-2008 and about a subsequent increase in the eelgrass in 2009-2011 from 2008 levels. Mr. Trowbridge is asked whether he knows what caused the decrease and subsequent increase – he answers "I don't know." (Page 370). But, Trowbridge continues his answer by adding that "... it's part of a longer period of decline." Here Trowbridge explains how regression analyses used by the State include a much longer period of time for purposes of properly analyzing the overall and long term declining trend in eelgrass acreage.

Additionally, on Page 372 of his deposition, Trowbridge states in answer to a question of whether there is data showing major increases in algal growth (specifically phytoplankton) in Great Bay or Portsmouth Harbor in the 2006 -2008 time frame, "For

phytoplankton, no, there's no information." But here, Mr. Trowbridge is simply being asked about increases in phytoplankton *per se* during a short period of time in specific locations in the estuary. Elsewhere, the record contains ample evidence (supported by other portions of Mr. Trowbridge's and Dr. Short's deposition testimony not cited by the Coalition) demonstrating that, for example, macroalgae (as opposed to phytoplankton) are a greater problem for eelgrass growth in Great Bay proper. Furthermore, the *absence* of such data on phytoplankton, for the time period in question, on its face is not equivalent to the Coalition's overly-broad statement in Exhibit 15. And *none* of the testimony on pages 370-372 of Trowbridge's deposition is equivalent to or properly supports the Coalition's statement that "Post 2006 Eelgrass Population Decreases in Great Bay and Lower Piscataqua River Could Not Possibly Have Been Due to Nitrogen."

### 2. The Coalition Misleadingly Cites to Deposition Exhibits as Opposed to Deposition Testimony

The Coalition frequently asserts a conclusion about the science relating to the Great Bay Estuary and then cites to a "Deposition Exhibit," *i.e.*, an exhibit used by the Coalition's legal counsel in questioning a deponent (either that deponent or another) and sometimes authored by another person, suggesting that the deponent himself uttered statements during the deposition that support the scientific or factual conclusion claimed by the Petitioner to be supported by the content of the Deposition Exhibit. For example, the *Pet.* at 5, includes this broad assertion:

Various analyses developed by Philip Trowbridge [footnote omitted] and presented to EPA and the TAC [Technical Advisory Committee], confirmed that nitrogen had not caused changes in transparency due to increased algal growth and other factors (natural) were controlling transparency in the system. (See Attachments to Exhibit 14 and 15 attaching Deposition Exhibits 31, 32, 71 and 72.)

But nowhere does the Coalition cite to any deposition testimony by Mr. Trowbridge that corroborates the Coalition's characterization of his analysis. Mr. Trowbridge actually made a number of statements in his deposition about nitrogen and its relationship to water quality in the Great Bay Estuary, each of which contradicts the Coalition's assertion quoted above.<sup>2</sup> Furthermore, on Page 440 of his deposition, Mr. Trowbridge explains that certain pre-2009 interim reports were not included in the *Great Bay Nutrient Report* because they were not part of the final analyses, where he states "I would say the interim analyses are not included in the report; no. They were not included in the final report. What was included was [sic] the final analyses…" For only one example, note that Deposition Exhibit 31 attached to Exhibit 14 (referenced at *Pet.* 5) is a report from 2006.

# 3. The Coalition Makes Misleading Use of Documents During Depositions

The Coalition also makes misleading assertions in its Petition based on documents shown to the deponents during the depositions. During the depositions, counsel for the Coalition would show the deponent a document that the deponent had an incomplete or poor recollection of at the time of questioning. The exhibits in question often consisted either of e-mails, in which deliberative discussions occurred between and among various persons about the estuary, or of scientific reports or other documents. The deponent then would be questioned about an excerpt or one statement from one of the e-mails or reports, taken out of its entire context (meaning not only the context of the document itself, but the larger scientific context in which that one document exists). The deponent was often placed in the position of stating that he had no reason to disagree with the identified statement in question. The Coalition then asserts its own (not the deponent's) much

<sup>&</sup>lt;sup>2</sup> See, for example, page 1 of Attachment A to this Appendix B, Deposition Testimony Excerpts.

broader scientific claim or conclusion and uses the deponent's statement, characterized

by the Coalition as an "admission," as supporting evidence.

One example of this involves the Coalition's use of Mr. Trowbridge's deposition testimony beginning on page 104 and continuing through page 106. Page 68 of the

Petition contains this statement:

In any event, the Coalition noted that following the macroalgae increase of 2007/2008, eelgrass populations rebounded by about 40% and DES confirmed that there was no information showing that macroalgae were significantly preventing eelgrass regrowth in the system (Exhibit 15 at 9).

Page 9 of Exhibit 15 contains the following statement, citing, in part, to Pages 104

and 105 of Mr. Trowbridge's testimony:

Yet, Mr. Trowbridge did not oppose Dr. Short's findings that current macroalgae growth has not been demonstrated to prevent eelgrass restoration anywhere in Great Bay.

This Coalition statement seriously mischaracterizes the meaning of Dr. Short's statement and, in turn, what "findings" Mr. Trowbridge precisely "did not oppose." Dr. Short's email statement (the e-mail in question is dated November 30, 2007 and was marked as Exhibit 58 to Volume 1 of Mr. Trowbridge's deposition transcript) was not meant as a confirmation that current macroalgae growth would not prevent eelgrass growth in Great Bay.<sup>3</sup> In fact, Dr. Short's specific deposition testimony, at pages 45-47 and referenced on page 5 of Attachment 1 to this Appendix B, establishes that he believes the opposite is true. What Dr. Short's email actually says, contrary to the meaning given to it by the Coalition, is that there is a distinction to be made between areas where macroalgae is "overgrowing eelgrass beds" and areas where macroalgae "has proliferated to the extent

<sup>&</sup>lt;sup>3</sup> See page 2 of Attachment 1 to this Appendix B for a quotation from Mr. Trowbridge's deposition testimony of the referenced e-mail statement made by Dr. Short.

to prevent the reestablishment of eelgrass from seed." Both of these circumstances result in adverse impacts on eelgrass populations, and Dr. Short's actual finding is that the latter, as opposed to the former, is more applicable in Great Bay proper. Dr. Short's actual deposition testimony quoted on page 5 of Attachment 1 to this Appendix B clearly reveals the Coalition's mischaracterizations.

# 4. The Coalition Misleadingly Uses Hypothetical Scenarios as "Admissions of Fact"

A deponent was in certain instances questioned about hypothetical factual scenarios. Because of the nature and details of the hypothetical scenario posed, the deponent would concede that certain consequences, facts, or even conclusions, follow from the hypothetical facts presented during questioning. That line of questioning by itself would not be objectionable of course if the Petition had not then asserted that the deponent "admitted" or "confirmed" one of the Coalition's overly-broad scientific conclusions by virtue of having admitted that certain consequences *would* flow from certain *hypothetical* facts. For example, on page 7 of Exhibit 15 to the Petition, the Coalition asserts that "[w]ith regard to the rapid decrease in eelgrass post 2005, it was acknowledged that rainfall and flooding could have been the cause of the decreased eelgrass populations. (Trowbridge Dep. At 381-384, 436)." However, in his actual testimony onpPages 381-384, Mr. Trowbridge simply is asked whether turbidity and color dissolved organic matter would affect eelgrass growth and whether nitrogen control would be relevant if such circumstances were the case. Mr. Trowbridge's testimony merely indicates that controlling nitrogen would not affect turbidity and color dissolved organic matter if, in fact, those were the reasons why eelgrass losses were occurring.

(Nor does Mr. Trowbridge's testimony on page 436 of his deposition transcript in any way support the Coalition's broad conclusion.) What Mr. Trowbridge actually stated is very different from asserting that he "acknowledged" that certain weather events (or consequences thereof) over a limited period of time may have been the *actual* cause of the eelgrass declines in the Great Bay Estuary being considered by NHDES and EPA. But that is precisely what the Coalition means to suggest, *see, e.g., Pet.* at 36 and 73, referencing Exhibit 15 to the Petition, and see more specifically, page 11 of Exhibit 15 to the Petition, referencing pages 381-385 of Mr. Trowbridge's deposition testimony. For an example of the Coalition's attempt at blurring the distinction between actual site-specific facts and hypothetical questioning in the testimony, see page 3 of Attachment 1 to this Appendix B, particularly the language near the end of page 3 and highlighted in larger font.

## C. The Deposition Arguments Are in Almost All Cases Demonstrably False

The Coalition also alleges that the depositions "confirmed" four distinct "facts." EPA specifically addresses below three of those alleged "confirmations" of "fact," explaining the fallacies behind Petitioner's claims. *See Pet.* at 30-31. The fourth allegation, relating to the state's narrative nutrient criteria and cause and effect relationships is extensively addressed in the body of EPA's Memorandum in Opposition to the Petition for Review at Section V.A.1.

Each of the Coalition's three specific allegations addressed below are mischaracterizations in one way or another of the deposition testimony, either as to the specific individual parts of the testimony or as to the deposition testimony as a whole.

EPA addresses each, in turn, to explain why the picture the Coalition attempts to portray does not accord with reality:

- a. The Petition asserts that the *Great Bay Nutrient Report* "was based on fundamentally flawed scientific conclusions at odds with the available water quality data." *Pet.* at 30. This exact statement was never stated or "confirmed" by any of the deponents in any of their depositions. Therefore, the Coalition's assertion at most constitutes an overly-broad and incorrect characterization of the deposition testimony. In addition, because of the Coalition's vague citations to deposition testimony, it also is not clear exactly which parts of the deposition testimony Petitioner claims "confirm" the Coalition's conclusion. Moreover, for example, various statements made by Mr. Trowbridge and Dr. Short about the relationship between, and science behind, nitrogen and the phenomenon of cultural eutrophication in the Great Bay Estuary actually contradict the Coalition's claim. *See, e.g.*, pages 1 and 5 of Attachment 1 to this Appendix B.
- b. The Petition asserts that the *Great Bay Nutrient Report* "did not represent the implementation of the States' [sic] existing narrative standard [, but rather, constituted] new numeric criteria." *Pet.* at 30-31. The Petitioner fails to identify which parts of the deposition testimony it is referring to in making such an assertion. This statement was never stated or "confirmed" by any of the deponents in any of their depositions. On the contrary, Mr. Trowbridge stated on page 85 of his testimony:

As I've tried to explain, we used a stressor-response matrix to determine whether our narrative criteria for nutrients are being violated. And that process looks at whether you have both high concentrations of nitrogen

and the responses in the system that would be expected with high nitrogen. And that is how we make a determination for a nitrogen impairment."

The Coalition's assertion is accordingly at best a broad mischaracterization of the testimony, amounting to no more than a conclusory statement that supports its own views.

c. The Petition states that the Great Bay Nutrient Report "excluded extensive site specific information and analyses prepared by DES showing that the TN had not been the cause of the claimed TN-induced use impairments or cultural eutrophication in this system." Pet. at 31. This statement simply constitutes the Petitioner's assertions of what information is *relevant* to the 2009 document, and is demonstrably at odds with what NHDES believed was relevant or accurate information in 2009. Neither NHDES deponent ever testified that any prior information "showed" that "TN had not been the cause of the claimed TNinduced use impairments or cultural eutrophication in this system." On pages 436-440 of Mr. Trowbridge's deposition testimony he indicates that certain pre-2009 analyses were not included in the final 2009 report, but explains that such analyses were "interim" in nature and were not a part of the final analyses. Thus, Mr. Trowbridge's actually testimony is much different than the Coalition's assertion that the testimony "confirmed" that extensive site-specific information and analyses showed that total nitrogen had not been the cause of total nitrogen induced impairments or cultural eutrophication in the estuary.<sup>4</sup> Even assuming

<sup>&</sup>lt;sup>4</sup> Because the Coalition also asserts that "many of these same findings were reviewed and admitted to be true in Commissioner Burack's letter of October 19, 2012," *Pet.* at 31, and that the letter "confirmed [that] the disputed scientific issues raised by the Coalition were . . . correct," *id.* at 33, it is worth repeating what NHDES actually stated in the letter:

Petitioner's statements, as worded, to be true (which EPA disputes), it is obviously not fatal to the content of a final scientific report and its conclusions that the same persons who authored the final report, or other persons consulted at earlier times, might have had different thoughts in the past based on more limited data, other information, and a lack of adequate means by which to draw valid final scientific conclusions. Mr. Trowbridge's and Dr. Short's deposition testimony is replete with relevant information about nitrogen and its relationship to cultural eutrophication in the Great Bay Estuary. See references to deposition testimony on pages 1 and 5 to Attachment 1 of this Appendix B.

Estuaries are very complicated environments. Consequently, the DES study of the impacts of nutrients in the estuary considered multiple approaches and evolved over four years. Some of the initial analyses done by DES at the beginning of the five years of research between 2005 and 2009 failed to show simple relationships between nitrogen and transparency, phytoplankton, or dissolved oxygen. However, *these analyses did not prove that relationships between these parameters did not exist*. The initial methods and datasets used were simply inadequate for the task. Therefore, the analyses that the [Coalition] uses to demonstrate the absence of cause-and-effect relationships, *do not prove anything*.

Ex. 32, at 12 (emphasis added).

## ATTACHMENT A TO APPENDIX B – DEPOSITION TESTIMONY EXCERPTS

## Page 1

## Philip Trowbridge's Deposition Testimony Excerpts referenced In Appendix B

Pages 128 and 129: "The Great Bay buoy study showed that nitrogen was taken up to fuel a chlorophyll bloom or a phytoplankton bloom and that chlorophyll was a significant component of the light attenuation in the bay. That is a detailed study that was done."

Page 136: "What I'm saying is when you do the statistical test to compare historical measurements of chlorophyll to the most recent measurements, it was statistically significant when we did the 2009 State of the Estuaries Report."

Pages 83-85: Trowbridge explains the relationship between nitrogen and responses such as light attenuation and eelgrass loss which, taken together, he says informed DES's decision to list Great Bay waters as impaired in 2009 for the 2008 303(d) list.

Pages 61-62: Trowbridge explains information obtained from Dr. Short about nitrogen being the cause of eelgrass decline and the fact that DES used that information but made its own decisions.

Pages 95-96: Trowbridge states that the 2009 criteria document demonstrates that nitrogen and transparency are causes of eelgrass loss in some areas of the Great Bay Estuary and that there are other causes for eelgrass loss as well related to nitrogen.

Bottom of Page 114 and top of Page 115: Trowbridge states that data supports the hypothesis that nitrogen is causing phytoplankton blooms which reduce water quality. (Although he clarifies that the hypothesis holds for only some areas of the estuary, not all areas.)

Pages 134-135: Trowbridge states that he believes the 2009 State of Estuaries report shows an increasing trend for chlorophyll along with an increasing trend for nitrogen.

Page 136: Trowbridge addresses a question about a claimed 59% increase in nitrogen and no corresponding increase in chlorophyll-a. Trowbridge points out the time frame for this information was pre-2009, which would be addressed conceptually on Page 440 of his testimony regarding interim or preliminary "information" not included or contained in the 2009 final report because it wasn't part of the final analyses.

## Page 2

## Philip Trowbridge's Deposition Testimony Excerpt referenced on Page 7 of Appendix B.

Q. All right. I'd like to show you,

it's an email from Fred Short to you and it's got a

whole -- a pile of emails attached to it and I didn't

exclude the ones that -- that are not relevant to our

discussion. I'd like to bring your attention to

under.3 -- and it's from Fred. It's talking about

Great Bay and, I guess, in part, macroalgae. It

says, Re: Pre-proposal on macroalgae. It's dated

November 30th, 2007. It says, and since we have not found

any areas of nuisance macroalgae overgrowing eelgrass

beds as we have documented in areas like Waquoit Bay,

Massachusetts, for example, the results of our

analysis are only applicable where nuisance

macroalgae has proliferated to the extent to prevent

the reestablishment of eelgrass from seed. Do you have any reason to doubt the accuracy of Fred Short's statement that they have not found -- as of this time frame, they have not found areas of nuisance macroalgae overgrowing eelgrass

beds?

A. I don't know. I mean, I don't know

what he was thinking when he wrote this.

Q. But do you have any reason to doubt the

accuracy of the statement? I mean, Fred Short's the

person that goes out and looks at the eelgrass beds

every year, right?

A.Yes.

Q. Okay. So he's the one that's out there looking at the situation and then he says, we have not found any areas of nuisance macroalgae overgrowing eelgrass beds.

Again, any reason to believe that

that's an inaccurate statement from Dr. Short? A.No.

Q. No. Was Dr. Short's main concern, and I think he's got it stated below, that he was only concerned about nuisance macroalgae to the degree that it prevented eelgrass restoration; was that the main concern over macroalgae that was being raised at this time?

A. I'm not sure exactly. This is one of many emails on the topic. But that is -- so are you asking is that the main concern? Page 3 (testimony cont'd from Page 2)

Q. Okay. There was one significant change, right, that happened after 2005 in this system. Didn't the rainfall pattern increase significantly in the system?

A. We had a few years of very wet weather. I don't know. I haven't done an analysis of some kind of change in the climate pattern.

Q. I didn't say change in the climate pattern, I just said there's a number of years of much greater rainfall and it coincided with the eelgrass decline; right?

A. Uhm, certain years of greater rainfall; I don't know if they exactly coincide.

Q. Did you ever check it?

A. It depends on the -- we're having trouble figuring out what's the best weather station to use for this area.

Q. Did you check the flow stations on the rivers leading into Great Bay in the Upper Piscataqua to see if the river flows increased during the period of eelgrass decline?

A. I did look at the river flows, but I don't remember if they looked -- if they corresponded to those three years. Is that what you're talking about, 2006, 2007, 2008?

Q. We actually submitted -- HydroQual developed that analysis and submitted that information to you.

A. Yeah.

Q. Did you not look at it?

A. I probably did. I don't recall right now whether it coincides.

Q. If increased -- would increased tributary flows, could that be a direct and immediate cause, a direct and immediate adverse effect on eelgrass growth?

A. It could.

Q. Can you tell me why?

A. There's a number of reasons: Increased nitrogen loads, increased sediment loads, increased --

Q. Dissolved organic matter?

A. Yes.

Q. And that increase could have reduced the transparency, possibly, very rapidly in the system; right?

A. Are you talking about the color-dissolved organic matter or --

Q. No, turbidity. I mean, the turbidity and color-dissolved organic matter would have an immediate effect on the transparency in the system, wouldn't it?

A. Yes.

Q. And is that due to nitrogen loads, or is that just due to the turbidity and the color-dissolved organic matter coming in with the tributaries?

A. The -- I'm sorry, I don't quite understand the question.

Q. The question is: Is that a nitrogen problem or is that a turbidity color-dissolved organic matter issue? In other words, you wouldn't control – you can't control the turbidity and color-dissolved organic matter by regulating nitrogen in the system, can you?

Page 4 (testimony cont'd from Page 3)

A. Okay. So the last question is can you control those things, and the answer's no, you can't control color-dissolved organic matter or turbidity by controlling nitrogen.

Q. And, Mr. Trowbridge, I guess that's part of the point of why we're concerned where these analyses have gone. And I realize one only takes them to a certain point, but if the cause was due to a change in transparency due to turbidity and color-dissolved organic matter, then all of the money we're talking about spending on nitrogen control wouldn't change that condition, would it, for the wastewater plants?

- A. So speaking hypothetically?
- Q. Uhm-hmm.
- A. Yes.
- Q. Yes, it wouldn't change it; right?
- A. Yes, it wouldn't change it.

Page 5

Dr. Fred Short's Deposition Testimony Excerpts referenced in Appendix B.

Pages 37-39: The Coalition's legal counsel questions Dr. Short about the quoted statement below extracted from an e-mail the latter wrote. Note that Dr. Short does *not* testify that the statement is incorrect.

"My long-term research and annual monitoring of eelgrass in the estuary has clearly demonstrated that eelgrass is disappearing from the estuary" -- and here's the point -- "due to excess algal growth caused by increasing nitrogen levels in the water. There simply is no doubt about this fact."

Page 42: The Coalition's legal counsel questions Dr. Short about the quoted statement below extracted from an e-mail the latter wrote. Note that Dr. Short does not testify that the statement is incorrect.

"In Portsmouth Harbor, eelgrass has been declining for the past five years as a result of reduced water clarity caused by rising nitrogen inputs that foster increased phytoplankton growth in the water (microscopic algae)."

Pages 45 -47: Dr. Short testifies about the fact that nitrogen is causing an overgrowth of nuisance macroalgae and notes the resulting adverse impacts to eelgrass.