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MARYLAND DEPARTMENT OF THE ENVIRONMENT

Wetlands and Waterways Division

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IN THE MATTER OF THE EXELON : PUBLIC COMMENT  
CONOWINGO HYDROELECTRIC DAM : HEARING  
LICENSE RENEWAL :  
- - - - -x

Harford Community College  
Darlington Hall  
401 Thomas Run Road  
Bel Air, Maryland 21015  
Tuesday, December 5, 2017 - 6 p.m.

Denise Keehner presiding

Reported by:  
Edward Bullock, Notary Public

1 APPEARANCES:

2

3 On behalf of Exelon:

4 RANDALL M. LUTZ, ESQUIRE

5 Saul Ewing Arnstein & Lehr, LLP

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11

12 Officials Present:

13 Elder Ghiagiarelli,

14 Deputy Program Administrator

15 Wetlands and Waterways Program

16 Maryland Department of the Environment

17

18 Lee Curry, Director

19 Water and Science Administration

20 Maryland Department of the Environment

21

1 P R O C E E D I N G S

2 (6:03 p.m.)

3 MS. KEEHNER: Let's get started here

4 this evening. I want to welcome you and wish you a good evening.

5 My name is Denise Keehner. I am the Administrator of the

6 Wetlands and Waterways Program at the Maryland Department of the

7 Environment.

8 I want to welcome you and thank

9 everybody for taking the time to participate in the State's

10 regulatory process regarding the re-licensing of the Conowingo

11 Hydroelectric Project, and specifically Exelon's application

12 for a 401 Water Quality Certification under the Clean Water Act.

13 I also want to thank the Harford

14 Community College for the use of its facilities tonight.

15 I will be the presiding official for this evening's

16 public hearing. Accompanying me on my right is Elder

17 Ghiagiarelli who is the Deputy Program Administrator for the

18 Wetlands and Waterways Program at the Maryland Department of the

19 Environment. I expect my boss, Lee Curry to arrive. He was in

20 a meeting at Annapolis all day today, but he had every intention

21 to be here tonight, so if you see a fellow join us at the table,

1 his name is Lee Curry and he is the Director of the Water and  
2 Science Administration at Maryland Department of the  
3 Environment.

4 First I want to take a minute to recognize any  
5 elected officials that have joined us this evening. Are there  
6 any elected officials in the room? Okay.

7 I will move on to a brief background discussion  
8 before we begin the process of asking folks to come forward. I  
9 will move this microphone to that table for anybody who wants to  
10 provide testimony or a statement.

11 So Exelon Corporation has filed with the Federal  
12 Energy Regulatory Commission or FERC, the acronym FERC, an  
13 application for a new license for the Conowingo Electric  
14 Facility.

15 As part of the FERC's re-licensing process, Exelon  
16 is required under the Clean Water Act to obtain from the State  
17 of Maryland, a 401 Water Quality Certification.

18 Section 401 of the Clean Water Act requires that any  
19 Applicant for any federal license or a permit for any activity  
20 that may result in a discharge into navigatable waters obtained  
21 from the state in which the discharge occurs, a certification

1 that such discharge meets the state's water quality standards  
2 and requirements.

3 The Department is conducting this public hearing on  
4 Exelon's application for a 401 Water Quality Certification,  
5 which was received on May 17, 2017. The state has one year from  
6 the date of application to render its final decision.

7 In its application for a Water Quality  
8 Certification, Exelon presents its articulation of applicable  
9 Maryland Water Quality Standards and Requirements, and then  
10 concludes that the project as proposed to operate with certain  
11 commitments, will meet applicable Water Quality Standards.

12 In brief, to paraphrase, Exelon concludes on page  
13 two of its application, that the minimum flows pursuant to which  
14 the project will operate, there are rational capabilities of  
15 certain generating units, the recreational facilities, the  
16 operation of the east and west fish lifts, measures to improve  
17 and protect rare, threatened and endangered species, and the  
18 implementation of best management practices to minimize or  
19 eliminate sediment and nutrient delivery to project waters from  
20 project lands, ensure that the project will meet applicable  
21 water quality standards, and protect existing uses while

1 operating under the new FERC license.

2 To be more specific, the commitments Exelon is  
3 making consist of protection, mitigation and some measures  
4 including enhanced dissolved oxygen measures and monitoring of  
5 dissolved oxygen, debris management, implement of sediment and  
6 shoreline management plans to control sediment and nutrients  
7 into the Conowingo pool from project lands, implementation of a  
8 2016 settlement agreement with the U.S. Department of Interior  
9 relating to improvements to fish passage, and increased minimum  
10 flows during certain times of the year.

11 Exelon indicates on page three of its cover letter  
12 transmitting its 401 Water Quality Certification application,  
13 that Exelon is not proposing as part of the application to  
14 address sediment and other pollutants introduced by unaffiliated  
15 third party sources, upstream of Conowingo Pond.

16 In addition to its assertion that the project will  
17 meet applicable Maryland Water Quality Standards, Exelon also  
18 asserts that the additional measures to be implemented in  
19 connection with the re-licensing of the Conowingo project will  
20 provide immediate measurable benefits to Maryland's Aquatic  
21 resources.

1                   On July 10th 2017, pursuant to the Code of Maryland  
2 Regulations, 26.08.02, Regulation .10, Water Quality  
3 Certification, the Department issued a 30-day public notice,  
4 soliciting comment on Exelon's application for a 401 Water  
5 Quality Certification.

6                   The end of the public comment period was  
7 subsequently suspended from August 9th to August 23rd 2013. The  
8 majority of water quality issues raised in the comments received  
9 in response to the Department's July 10th 2017 public notice  
10 include one, sediment and associated nutrient impacts to water  
11 quality, aquatic life, and habitats in the lower Susquehanna  
12 River and upper Chesapeake Bay due to the loss of sediment  
13 trapping capacity behind the dam.

14                  Two, minimum flows and maximum flows, and the race  
15 of upramping, downramping of flow and flow-related needs of  
16 aquatic life and wild life downstream, fish blockage, and the  
17 need for the Water Quality Certification to incorporate key  
18 elements of the 2016 fish passage settlement agreement with the  
19 Department of the Interior into Maryland's Water Quality  
20 Certification, as well as the need to place more emphasis on  
21 improving sooner the success of volitional fish passage,

1 over-using long-term trap and transport of fish as the primary  
2 mechanism for upstream fish passage of migratory species.

3 Other comments suggested additional specific actions  
4 to be undertaken by the applicant to address the water-related  
5 concerns.

6 These include establishing and  
7 financing a dedicated fund to mitigate the environmental and  
8 economic damages caused by the release of sediment and  
9 associated nutrients during scour events.

10 Two, implementing a multi-pronged holistic and  
11 cost-effective solution to address sediment and associated  
12 nutrient releases from the dam due to the loss of trapping  
13 capacity.

14 Three, factoring into its water quality commitments,  
15 the implications of climate change over the 46-year term of the  
16 FERC license.

17 Specifically an increased frequency of scour events.

18 Four, providing financial assistance for nutrient reduction  
19 projects upstream.

20 Five, requiring the removal of significant amounts of  
21 sediment to restore trapping capacity.

1           Six, implementing a more natural flow regime to support  
2 downstream species, including higher minimum flows or a dual  
3 minimum flow regimes, controls on the rates of upramping and  
4 downramping, and limits on operational flows, and 7, improved  
5 debris management to reduce adverse impacts on drinking water  
6 withdrawals downstream.

7           Several public comments were also received noting  
8 the important benefits of the facility and support for issuance  
9 of the water quality certification for this project.

10           In rendering a decision on Exelon's application, the  
11 scope of MDE's review includes examining existing data and  
12 information regarding water quality issues with respect to the  
13 current operations of the Conowingo Hydro-Electric Project and  
14 assessing the adequacy of Exelon's additional commitment with  
15 regards to meeting the state's water quality standards and  
16 limitations.

17           MDE's review includes an evaluation of the impact of  
18 the operation of the dam and its discharges, on meeting water  
19 quality standards in the Conowingo Pond, the Susquehanna River  
20 immediately down from the dam, the tidal portion of the  
21 Susquehanna River and in areas of the Chesapeake Bay that are

1 influenced by the pollutions in the Susquehanna River.

2 In addition, based on the comments received in  
3 response to MDE's public notice on July 10th, the Department  
4 must decide whether additional requirements beyond Exelon's  
5 commitments are necessary to achieve compliance with the State's  
6 Water Quality Standards and limitations.

7 Finally, it is worth mentioning here today that to  
8 the extent that MDE identifies potential new impairments of any  
9 of these waters as part of its review, MDE will be considering  
10 the need to list waters as impaired.

11 Tonight's public hearing is being held pursuant to  
12 Title 9, Subtitle 3 of the Environmental Article and Code of  
13 Maryland Regulations, Title 26, Subtitle .08, Chapter .02, water  
14 quality.

15 The purpose of tonight's hearing is to  
16 solicit any additional comments from interested parties on  
17 Exelon's application for the Water Quality Certification. MDE's  
18 role tonight is to listen.

19 If you have not yet signed the  
20 attendance sheet outside, please do so as the attendance sheets  
21 ensure that you will be placed on the interested persons list

1 for this action and this list will be used to notify you of any  
2 additional opportunities for public comment and the Department's  
3 final decision.

4           Prior to taking statements, I want to  
5 note the following: First, it's not necessary to read a  
6 statement to make it part of the official record tonight.  
7 Written comments will be accepted and receive the same  
8 consideration as an oral statement.

9           Second, this hearing is being  
10 transcribed for the record. This transcript will be used to  
11 facilitate the Department's final decision, and hearing  
12 participants may be able after the hearing and after the  
13 transcript is produced, be able to purchase a copy of the  
14 transcript.

15           We have roughly 13 people so far at  
16 least as of about 6 o'clock or so that have asked for time to  
17 speak and provide testimony and make statements tonight. So  
18 since we have that number, I think we are good to say that each  
19 speaker can have 10 minutes, up to 10 minutes to provide their  
20 remarks and comments.

21           At this point we're going to go ahead

1 and proceed to take statements. First, let's see. So I'm going  
2 to call upon members of the general public to make their  
3 statements and I'm going to start with the sign-in sheets and go  
4 down each of the sign-in sheets, identifying the people who said  
5 yes, they were interested in making a statement.

6 When I call your name can you please  
7 come forward and you're welcome to have a seat at the table.  
8 I'm going to move the microphone over there, and state your name  
9 and any interest for which you may be here for tonight.

10 The first name on the first sign-up  
11 sheet is Kevin McLaughlin. Welcome, Mr. McLaughlin.

12 MR. McLAUGHLIN: Thank you. I'm  
13 speaking on behalf of the Friends of the Conowingo Dam. My name  
14 is Kevin McLaughlin. I'm a graphic designer, an art director  
15 and a communications consultant. I'm also a professional fine  
16 artist working as a landscape painter and nature and landscape  
17 photographer.

18 I live in Fairhill, Maryland. I've  
19 been a resident of Maryland for the past 17 of 21 years. I was  
20 born in Wilmington, Delaware.

21 For over 35 years, the Susquehanna

1 River served as subject matter and inspiration for my art.

2 I've explored the river almost as far  
3 north as Williamsport, PA. I've also traveled widely in the  
4 mountainous northwest, Idaho, Montana, Washington State, Oregon,  
5 California and Arizona and I consider the Susquehanna River to  
6 be one of the most beautiful features of the Eastern United  
7 States.

8 On a personal note I grew up in  
9 Wilmington, Delaware and I first visited the Conowingo Dam in  
10 1964 when I was about 10 years old. I was raised in a family  
11 that valued technology and engineering and my father took me to  
12 an open house of the Dam reviewing the history probably after  
13 they finished the new power house.

14 We toured the facility and the power  
15 house and as I 10-year-old I learned about hydro-electric  
16 generation firsthand. I was tremendously excited to see the dam  
17 up close and I've returned to the area ever since.

18 The dam is a tremendous resource for  
19 the region. It has historical position as one of the largest  
20 concrete structures of its era. It provided over 200  
21 well-paying jobs. It provides tourism dollars and recreational

1 opportunities for 250,000 per year.

2 It also contributes greatly to the tax  
3 base. The numbers that it contributes are very large and the  
4 absence of these numbers would be quite an economic hardship for  
5 the region.

6 Loss of these numbers is something we  
7 can ill afford.

8 I realize that the environmental  
9 issues involved are very complex. There's the sediment issue.  
10 We must consider that the dam holds back much of the sediment.  
11 We must consider that the runoff comes mostly from New York and  
12 Pennsylvania and just a small percentage comes from the shores  
13 of Maryland.

14 It unfair that Maryland seems to bear  
15 the brunt of this burden. New methods of mitigation must be  
16 found and ways of sharing the burden must be found.

17 To me, the most important issue is out  
18 of a green renewable energy. Is not hydro-electric power the  
19 cleanest form of energy we have. There are only so many rivers  
20 on the Continent that can be harnessed for this. Hydro-power is  
21 a finite resource, while being infinite. Finite and its

1 application goes like this and we don't have that many rivers.

2 Can we afford to de-certify the dam

3 plus forcing society to burn more coal and oil and dance the

4 dance with nuclear fusion. Consider the Greenhouse Gas is

5 avoided. Consider the ocean acidification avoided.

6 If one considers the role the dam

7 plays in partially blocking the sediment, I would suggest a

8 balance sheet leans towards re-certification of the facility.

9 Thank you.

10 MS. KEEHNER: Thank you. Stephanie

11 Campbell.

12 MS. CAMPBELL: Hello. My name is

13 Stephanie Campbell. I live, work, and play in Harford County.

14 I am here tonight to say that I support the re-licensing of the

15 Conowingo Dam.

16 Over 20 years ago, my husband and I

17 purchased a small boat and trailered it to the different

18 waterways in the county. And then we discovered that our

19 favorite spot was the Conowingo Pond.

20 MS. KEEHNER: Uh-huh.

21 MS. CAMPBELL: The Peach Bottom Power

1 Plant Boat Launch. So 18 years ago we purchased a cabin on  
2 Broad Creek and we have been blessed to witness all of the  
3 wildlife, beautiful sunsets, and star gazing offered by the  
4 Conowingo Reservoir and Shoreline.

5 And our Broad Creek Community  
6 Association partners with Exelon every June to help remove tons  
7 of trash from the water and shorelines of the Conowingo, so we  
8 can maintain our beautiful scenery.

9 MS. KEEHNER: Uh-huh.

10 MS. CAMPBELL: Several years ago, the  
11 Association also partnered with Exelon to build in place about  
12 20 wood duck boxes along the shoreline of the river in Broad  
13 Creek.

14 The Conowingo Dam is a huge part of my  
15 life. I am glad to be able to see the improvements to the  
16 recreational facilities around the pond and I have certainly  
17 enjoyed attending the Exelon events over the years that benefit  
18 the community.

19 I have countless awesome memories and  
20 stories of life on the Susquehanna River and I support the dam's  
21 long-term operation to continue to produce clean energy in this

1 region, in my region for generations to come.

2 MS. KEEHNER: Thank you.

3 MS. CAMPBELL: I just get all

4 emotional because it's my life.

5 MS. KEEHNER: No, I understand. Is

6 it Lisa or Lise Brown?

7 MS. BROWN: My name is Lise Brown.

8 And I support the re-licensing of the Conowingo Dam by MDE. I  
9 am a lifelong resident of the Conowingo area and the Conowingo  
10 Dam has been a benefit to the surrounding communities since its  
11 opening.

12 One of my earliest memories of the  
13 Conowingo Dam is fishing there with my Dad or just playing along  
14 the river while Daddy fished, and yes, I am old enough to  
15 remember fishing from the now-closed catwalk along the front of  
16 the dam.

17 My family spends a lot of time  
18 enjoying the hiking and biking trails along the river which  
19 provide not only exercise and fun but a learning experience with  
20 the abundance of nature.

21 The Conowingo pulls another source of

1 recreation for families to enjoy and one we have utilized and  
2 enjoyed since its opening. One very important benefit of the  
3 Conowingo Dam for me is its toll-free access into Cecil County  
4 via U.S. Route 1.

5           It's very nice not having to pay the  
6 State of Maryland money just so I can enter Cecil County and go  
7 home. The Conowingo Dam is also an important part of protecting  
8 our Chesapeake Bay. The dam prevents trash and debris from  
9 entering the Bay. It's filled up with trash and debris which  
10 has come down the Susquehanna River from other states, is  
11 cleaned up and hauled away each spring from the current owners  
12 of the Conowingo Dam.

13           Imagine the devastation all that  
14 trash would wreak on our Chesapeake Bay if not stopped by the  
15 Conowingo Dam. I know there's a separate issue of sediment and  
16 nutrients building up behind the Conowingo Dam as with the trash  
17 and debris the sediment comes from upstream and is a serious  
18 problem that must be addressed.

19           The entire upstream region must be  
20 involved and responsible for addressing this pollution, not just  
21 the owners of the Conowingo Dam or the residents nearby.

1                   The Conowingo Dam is not only a vital  
2 link of reliable and clean energy in the region, the Conowingo  
3 Dam also fulfills various important community functions;  
4 boating, hiking, fishing, bird watching; education of school  
5 groups, and visitors are just the tip of the iceberg in what the  
6 Conowingo Dam provides to the surrounding communities.

7                   I would just say in closing, that the  
8 Conowingo Dam needs to be re-licensed so the residents and  
9 communities in the area can continue to benefit from their  
10 excellent stewardship. Thank you.

11                   MS. KEEHNER: Thank you. J. Alan  
12 Thompson?

13                   MR. THOMPSON: As I said, I'm J. Alan  
14 Thompson. I'm a lifelong member living in Harford County all my  
15 life. In fact, my Dad and my wife's father both worked on the  
16 dam when it was built, so we go way back.

17                   People have said before, problems with  
18 the sediment is not ours. It's New York and Pennsylvania. But  
19 the little bit comes from Harford County, it's minuscule. We  
20 could have another Agnes and it would clean it out. You open  
21 all 50 gates, you wouldn't have to. But I don't think people

1 downstream want that. The people downstream are trying to make  
2 Exelon pay for something that's not their problem.

3 FERC had their hearings a year, two  
4 years ago. I thought we were done with all the hearings. And  
5 everybody had gotten what they wanted and we should have a  
6 license by now.

7 Why Maryland is even questioning  
8 things I don't know. FERC did it. It should be settled. Thank  
9 you.

10 MS. KEEHNER: Thank you. Mark Bryer?

11 MR. BRYER: Denise, is it okay if I  
12 show some slides?

13 MS. KEEHNER: Yes, sure. There's a  
14 mouse that slides out.

15 MR. BRYER: Good evening. I'm Mark  
16 Bryer. I'm with the Nature Conservatory (inaudible) Susquehanna  
17 River in Pennsylvania. Today I direct our work on the  
18 Chesapeake Bay and on behalf of the need and concerns I would  
19 like to provide our comments in reference to the application for  
20 Conowingo Dam.

21 Let me just first start by saying I

1 think MDE has a big opportunity to increase environmental  
2 components, and bring it into the 21st century and continue to  
3 provide low carbon energy for the future.

4 Our major concern of our organization  
5 all over the world and the United States and the people of  
6 Maryland since 1951, to protect lands and waters on which all  
7 life depends.

8 We've been committed since then to  
9 find a science-based solution that will work with nature and the  
10 people.

11 When it comes to hydro power we work  
12 really all over the world. We work in dozens of countries  
13 around the world working with governments, working with industry  
14 to find ways to develop and operate an economical viable carbon  
15 energy sources like hydro power. We want to do that and so work  
16 from Conowingo as the largest dam on the largest river on the  
17 eastern seaboard, is a big deal for us.

18 We want to see that continued and it  
19 will be also better because some mitigation that still needs to  
20 happen in order for the dam to be up with all the standards that  
21 exist in America and to be the Chesapeake TMDL.

1                   As a number of the other speakers  
2 mentioned, Conowingo Dam is just one player in a really complex  
3 system. There's a really big watershed with a lot of different  
4 players. So we're not here to point the finger at one dam as  
5 the sole source.

6                   But that source does have impacts and  
7 it does need to mitigate those impacts from being bolder. So  
8 those are good examples.

9                   This is an illustration of how Conowingo operates  
10 today which was generating hydro power. You can see that  
11 the dam operates to maximize power generation. During  
12 that generation period it carries the river's flow by a  
13 factor of 0 for 20 daily during the course of the day and  
14 the maximum and minimum far outside of what occurred  
15 historically and far outside of operations with dams with  
16 tidals elsewhere in the world. So it was based upon the  
17 best available sites we had. On things like downstream  
18 habitat and inclement weather. In the comments Denise mentioned  
19 in August we submitted a lot of detailed documents. Tonight I have  
20 highlights for specific recommendations that we would offer for  
21 inclusion in the Conowingo Certification.

1                   The first is to a modify the schedule  
2 to restore effective habitat. The second is to mitigate  
3 incremental pollution that's resulting in the situation at the  
4 reservoir.

5                   The third resulting fish passage, and  
6 the fourth is to do all those things adaptively and to make sure  
7 they're leading others towards measurable goals. This last one  
8 is really important because this is a long license. This is 40  
9 years.

10                  None of us really can guess what kind  
11 of science, what kind of knowledge, what kind of technology  
12 might be developed over that time frame. So it's really  
13 important from our perspective to be adaptive and to continue to  
14 provide the best technology and the least cost solution moving  
15 forward.

16                  Just a little more on issues. We have  
17 a proposal to include in our written comments before January  
18 13th, to follow a schedule. This detailed recommendation was  
19 developed over a number of different partners to still provide  
20 economically feasible power generation but maximize habitat, the  
21 ones that were downstream like migratory fish. Mussels that can

1 clean the water for us and aquatic vegetation that a lot of our  
2 species care about.

3           So a precautionary symptom talks  
4 about adjusting the minimum and maximum flows and releases.  
5 Adjusting the ramping rates, the time between which the dam  
6 shuts off and powers up. And again reports of being down there  
7 and greeting the working group that's in place at Table 2, to  
8 form progress hopefully, and again, the benefit of that is we're  
9 restoring this incredible flow reception historically.

10           In terms of recommendations for water  
11 quality, there's a lot of conversation which many folks have  
12 mentioned tonight. There's a lot of science that we know about  
13 this type of pollution and we would just recommend that MDE  
14 look at those data as they are literally being talked about  
15 today and create a plan.

16           Our recommendation from our  
17 perspective would be to give flexibility to Exelon and find the  
18 least-cost solution in every occasion. In our experience that's  
19 often the current nature-based solutions like frozen wetlands,  
20 but again flexibility is important from our perspective  
21 (inaudible).

1                   From a migratory fish passage  
2 to negotiate a settlement agreement. We would recommend all  
3 these mitigations and incorporate that into the 401  
4 certification. And again, enhance the adaptive process over the  
5 course of the 46th year.

6                   I wanted to just highlight the  
7 particular meaningful mitigation is really feasible from an  
8 economic perspective, we think. This is just a chart showing a  
9 variety of different means that the dam could operate under that  
10 changes different benefits.

11                   How is that done in varying ways? The  
12 proposal, the complex Table that I showed before represents a  
13 cost of less than two percent of the annual revenue that really  
14 returns 70 plus percent of the affected habitat in this larger  
15 section of the stream and river.

16                   Additionally, we have major concerns.  
17 The Chesapeake Bay Foundation wanted to know if the issue that  
18 we were looking for was economically feasible. We wanted to get  
19 just a handle on we don't know what this -- is it feasible for  
20 the dam to continue to be profitable. And so we commissioned a  
21 study by an economics firm to look at the publicly available

1 data and the answer from that analysis was yes, there are excess  
2 profits for a significant area that provides for many of the  
3 issues.

4 In addition, the study didn't look at  
5 the detail, but there are, it could be access mitigation into  
6 the (inaudible) markets with additional revenue for Exelon and  
7 the dam's owner to provide access to higher levels.

8 So, in conclusion I'd just like to say  
9 this is an incredible opportunity. This dam is a resource for a  
10 whole bunch of different reasons. There's an opportunity to  
11 bring it into the 21st Century. It is the largest dam on the  
12 largest river on the Eastern Seaboard.

13 We need the low carbon power but we  
14 also need a really good habitat and we think we can get all  
15 these things together. So there's an opportunity for leadership  
16 on the state's perspective and there's an opportunity for  
17 leadership from Exelon's perspective to sort of show how hydro  
18 power can work for all these things.

19 MS. KEEHNER: Thank you. Carl  
20 Schendelwieser. Did I pronounce that  
21 right?

1 MR. SCHENDELWIESER: That was close

2 enough.

3 MS. KEEHNER: Okay.

4 MR. SCHENDELWIESER: My name is Carl

5 Schendelwieser from Havre de Grace, Maryland. I don't have any

6 formal presentation like the previous speakers had, but I've

7 been attending meetings now for a number of years on this

8 re-licensing procedure and I have notes here going back to

9 December 9th 2014 and at that time I lived in another building

10 here on campus. We had 7 agencies that had presentations on

11 whether they were going to get the license at the Conowingo Dam.

12 And during that presentation and I

13 think one of the first studies on the Conowingo Dam was

14 federally funded was to the Army Corps of Engineers. And the

15 result of their study showed that sediment had no impact on the

16 upper part of the Chesapeake Bay.

17 As far as, also the Chesapeake, the

18 Conowingo Dam as far as we're talking about sediment, as far as

19 trapping logs and floating plastic and everything, if that dam

20 wasn't there, there would be an additional 600 tons of logs and

21 debris down into the Bay which they're removing. And if

1 anything, they should get an award for doing such a great job.

2 Also, anything as far as the  
3 nutrients, the phosphorous and nitrogen goes, that's all from  
4 above the dam, Pennsylvania, New York, and to hold them  
5 responsible for the remediation of that I think is totally  
6 unjust to the dam.

7 That's something Pennsylvania is going  
8 to have to address to reduce that. It's not the dam's  
9 responsibility as far as I'm concerned. As far as the pollution  
10 it's causing, I don't see any.

11 But in the last 7 days in a local  
12 Baltimore newspaper, toxic algae bloom reported in Baltimore  
13 Harbor. And it goes on to say, you know, about the fish kills  
14 that are going on, the algae blooms, none of this is caused by  
15 the Conowingo Dam.

16 Also within that 7-day period, another  
17 article, Patapsco Wastewater plan far exceeding its pollution  
18 limit. And again this goes on to say how much, there's 21  
19 wastewater treatment plants causing and exceeded pollution.

20 Another one we have is the limits of  
21 the flush tax. Now even with the amount of money that's gone

1 into it, as a matter of for instance here, 3.6 million pounds of  
2 nitrogen discharged last year and it was 29 percent over the  
3 2016 limits. New York is going to have to address to reduce  
4 that. It's not the Dam's responsibility as far as I'm concerned.

5 As far as the overall pollution it's  
6 causing, I don't see any, but in the last 7 days in a local  
7 Baltimore newspaper, we got one here. Toxic algae bloom  
8 reported in Baltimore Harbor. And it goes on to say about the  
9 fish kills are going on. The algae blooms they're having. None  
10 of this is caused by the Conowingo Dam.

11 Also within that 7-day period, another  
12 article, Patapsco Wastewater Plant, far exceeding its pollution  
13 limit.

14 And again this goes on to say how  
15 much, there's 21 wastewater treatment plants causing this  
16 exceeded pollution.

17 Another one we have are the limits of  
18 the flush tax. Now even with the amount of money that's gone  
19 into it, for instance here, the 3.6 million pounds of nitrogen  
20 discharged last year, and it was 29 percent over the 2017  
21 limits.

1                   So just these three articles alone  
2 over the last 7 days show that the situation we have on the Bay  
3 with the algae blooms, the fish kills, the unfortunate fish  
4 kills, have nothing to do with the Conowingo Dam.

5                   As a matter of fact, as far as I'm  
6 concerned they are very good stewards of that river. Fishing  
7 has been great up there. I haven't heard one person require  
8 eels to be transported to the upper, above the dam, but yet  
9 Conowingo Dam was required to put in an eel ladder and I don't  
10 know how many thousands, maybe even millions of dollars for that  
11 remediation.

12                   And then to hold them responsible  
13 financially for all these studies. As far as I know they're  
14 paying for all these studies. Well, that's my interpretation  
15 they're paying for it. And to me it looks like nothing more  
16 than legalized extortion from the dam requiring this.

17                   And I was surprised when I got the  
18 email that we're having a meeting tonight. I thought that this  
19 was a closed thing and that the Conowingo Dam had been licensed,  
20 and why it's taking so many years for them to get a license.  
21 Nothing's changed there.

1 I took a tour through there and the  
2 equipment that was there in 1926 is there. It's working fine.  
3 It's doing its job. And all the mechanicals are expending more  
4 money for nutrient removal and everything is, I think totally  
5 unfair for the Conowingo Dam to be exposed to that. And I would  
6 think, I'm all for them getting a license as soon as possible so  
7 they can get on with doing their business.

8 MS. KEEHNER: Thank you.

9 MR. SCHENDELWIESER: Thank you for  
10 your time.

11 MS. KEEHNER: Uh-huh. Thank you. Dan Marinacci?

12 MR. MARINACCI: Hello.

13 MS. KEEHNER: Hi. Welcome.

14 MR. MARINACCI: I'm note taking.

15 It's what I'll be reading from. Thank you.

16 MS. KEEHNER: Thank you.

17 MR. MARINACCI: I'm not a public  
18 speaker and it'll show. I'm Dan Marinacci. I'm a PE, I'm  
19 licensed in multiple states. I earned my Bachelors and my  
20 Masters in Mechanical Engineering from West Virginia University  
21 in Morgantown. I'm employed, I'm considered a steam turbine, a

1 gas turbine subject matter expert.

2 I'm fortunate to have lived the last  
3 37 years about 20 miles from Conowingo Dam. That means I get to  
4 visit often. I'm into photography so I try to shoot the eagles  
5 and whatnot.

6 MS. KEEHNER: Uh-huh.

7 MR. MARINACCI: Every visit there I  
8 see people come from around the world to shoot the eagles, one  
9 of the best places certainly on the east coast, the photograph  
10 of bald eagles. So it's always many fishermen there, boaters, I  
11 see kayakers and there are people walking the trail and other  
12 recreational activities.

13 I consider the falling some of the top  
14 benefits of Conowingo Dam and other comments blend in. It  
15 provides a huge financial, recreational, and environmental  
16 benefit. The nutrients are captured by the dam. They're not  
17 produced by the dam. They're coming from upstream Maryland, I'm  
18 saying New York State.

19 I think it's only fair to hold the  
20 dam's owners responsible for something they're capturing and  
21 prevent it from going to the Chesapeake Bay. I'm of the opinion

1 long-term solutions can involve those three states, Maryland,  
2 Pennsylvania and New York.

3           Where I live there is a lot of farm  
4 land that drains into the Chesapeake and there's been efforts to  
5 educate the farmers on afforestation, for example.

6           That's been going on since I've lived  
7 there and that's been about 37 years. A total of 572 megawatts,  
8 that's the largest renewable storable, green energy power in  
9 certainly the east coast.

10           Conowingo produces 106 million  
11 megawatt hours of greenhouse gas emission, free electrical  
12 Haline to put that in layman's terms, that's about 160,000  
13 houses are powered by the dam.

14           And again, it's very important that  
15 that's greenhouse gas free generation.

16           And it's one of the best sources. I'm  
17 a turbine engineer, so again, to the technology of turbines.  
18 It's one of the best over all America for black start power. Do  
19 you recall when the grid went down two or three times in our  
20 lifetimes. They had a heck of a time starting back up because  
21 nothing would run.

1                   Conowingo Dam couldn't supply the  
2 power to the grid as we start plants.  
3 By wisely managing the reservoir and the Conowingo Dam acts as a  
4 large storage system of electrical power. So the problems with  
5 wind and solar, it's windy and you got power and when it's  
6 sunny, you have solar power but when you don't have it, you  
7 don't have power generation, so it's an effort to store the  
8 energy.

9                   One of the best ways to do it is  
10 water, the height of water behind the dam for example. So  
11 Conowingo provides that.

12                   Now they run to produce peaking power.  
13 And peaking power is normally produced by very inefficient  
14 coal-fired power plants such as ones I've looked at. And the  
15 reason being the demand goes up, so the price goes up so these  
16 plants are economical to run. Normally they're not. And the  
17 other thing that's used to provide peaking power is oil-fired  
18 gas turbine generator units because they're inefficient, not  
19 that clean burning, and put out a lot of greenhouse gases.

20                   So the Conowingo, by matching the  
21 reservoir height and running during peaking hours solves those

1 problems.

2           It's a huge economical engine for  
3 northeast Maryland which is pretty economically deprived.  
4 There's not a whole lot of industry there. They deliver 273  
5 million economical benefits and they crank that out to equal 265  
6 (inaudible) jobs.

7           If the dam is shut down, those jobs  
8 and that economical cash flow goes away. They directly pay \$10  
9 million annually in local taxes employing \$3.8 million for  
10 property tax. As I mentioned, it drives the regional tourism by  
11 attracting 250,000 recreational visitors each year and 210 Cecil  
12 and Harford County said they saw over \$200 million economical  
13 activity due to the tourism.

14           Our society today demands lust for  
15 power. I don't care how you produce it. There's negative  
16 aspects of producing power.

17           I'm from West Virginia. I'm certainly  
18 aware of the economical problems caused by the strip of deep  
19 mining. And seeing acid runoff and landscape damage. I can  
20 relay it, coal mining is a dangerous occupation and I can relate  
21 to that very personally because my own grandfather was crippled

1 in a coal mining accident.

2 And there were air and water pollution  
3 issues associated with a burning carbon coal are well known.  
4 And they're well known by all West Virginians and everybody in  
5 the country. The majority of climate scientists say carbon  
6 dioxide emissions are causing climate change which in turn  
7 causes a great number of storms that are more severe.

8 Once again I can relate to that  
9 personally because last September, my cousin, Brenda, who owns a  
10 beautiful home in Motney Springs, Florida, Hurricane Irma made  
11 landfall just miles from her home. Due to codes her house was  
12 built very well with stringent design with demands for the roof  
13 and the shutters and windows, so they came through pretty good  
14 and I'm like, well the neighborhoods in that town.

15 I'd like to say that where she worked,  
16 they came through okay in Denton. She worked for a number of  
17 weeks, if not months. Her place of employment was damaged. And  
18 all her neighbors didn't do so well. And mentally she still  
19 shows effects of having to deal with that storm.

20 And so, in summary, Conowingo Dam is  
21 one of the biggest and best sources in America for renewable,

1 carbon dioxide free for generations but to have them filled for  
2 energy storage.

3 And so Conowingo offers (inaudible)  
4 and it's not a source of the nutrient salint that's part of the  
5 issues being discussed. Therefore, I'm all for the 401 Water  
6 Quality Certification being issued and the long-term power  
7 generation license should be renewed as soon as possible if it  
8 hasn't been, I'm hearing mixed things at this meeting if it's  
9 been renewed or not.

10 Prevent the renewal of the license due  
11 to nutrient salint which comes from upstream issues. It would  
12 be a major disservice to the local Maryland and the whole  
13 country for that long-term well being.

14 MS. KEEHNER: Thank you.

15 MR. MARINACCI: Thank you.

16 MS. KEEHNER: Shirley Thompson. Hi.

17 MS. THOMPSON: How are you? My  
18 presentation tonight is not a technical one. It is a love one.  
19 Love of the area by all of my friends and my acquaintances in  
20 the area, plus all of the organizations and activities that go  
21 on in our area. And that includes the schools, the fire

1 company, and the different areas that have people who want to  
2 come and just visit. Okay.

3           So I want to see it remain the way it  
4 is. I was brought there at five years of age by my father who  
5 worked on the dam when he was young. But he bought a farmette,  
6 he had bought a farmette on Berkley and Castleton Road, and we  
7 lived there, I did, until I got married and I've lived in the  
8 Darlington Dublin area ever since, and at 81 years old I feel  
9 like to take the dam away from us would be a spoiled brat type  
10 of situation.

11           I just feel it is so much more of a  
12 love triangle than it is a technical one. Okay. Thank you.

13           MS. KEEHNER: Thank you. Okay. I'll  
14 try this last name. Ted Evjenindis?

15           MR. EVJENINDIS: Evjenindis.

16           MS. KEEHNER: How do you pronounce it  
17 again?

18           MR. EVJENINDIS: It's pronounced  
19 Evjenindis.

20           MS. KEEHNER: Evjenindis. Welcome.

21           MR. EVJENINDIS: Thank you. My name

1 is Ted Evjenindis. I'm the Lower Susquehanna river keeper. The  
2 Executive Director for the Lower Susquehanna River Keeper  
3 Association. I'm here representing myself tonight, along with  
4 the Lower Susquehanna River Keeper Association.

5 Our office is located at 2098 Long  
6 Level Road, Wrightsville, Pennsylvania. Let me give this to you  
7 as well.

8 MS. KEEHNER: Thank you.

9 MR. EVJENINDIS: You're welcome. My  
10 testimony tonight will be slightly technical so please hang out  
11 with me here for a couple minutes.

12 Good evening. Since 1928 Conowingo  
13 Dam has dramatically altered the Susquehanna River's flow  
14 patterns holding back sediment and nutrients and preventing it  
15 from moving downstream at natural rates, while preventing the  
16 migration of many species of fish, such as the American Shad and  
17 American Eel in exchange for hydroelectric power that generates  
18 private profits for Exelon.

19 Historically, the Susquehanna River  
20 has transported sediment from 10 million tons per year in the  
21 1930's to under 3 million tons per year in the 2000's.

1                   Part of the sediment and associated  
2 pollutants including nitrogen and phosphorous have entered the  
3 Bay while the remainder has been trapped behind the Lower  
4 Susquehanna River Dams.

5                   Of the four Lower Susquehanna River  
6 dams, York Haven, Safe Harbor, Holtwood and Conowingo, all but  
7 Conowingo, the furthest south have reached dynamic equilibrium,  
8 which is a state of minimized trapping capacity that fluctuates  
9 somewhat with storm-based scouring and filling, basically no  
10 longer trapping sediment.

11                  As this trapping capacity is reducing  
12 rapidly to a state of dynamic equilibrium, scouring of trapped  
13 sediments is on the increase. Scouring of sediment from behind  
14 the Conowingo Dam into the Chesapeake Bay and the loss of its  
15 sediment-retaining capacity, represent two imminent and  
16 substantial threats to the Bay.

17                  The first threat to the Chesapeake Bay  
18 is the reoccurrence of what is known as a catastrophic pulse.  
19 During four days in 1972 the flood waters of tropical storm  
20 Agnes, transported four years worth of sediment and pollutants  
21 down the Susquehanna River from New York and Pennsylvania.

1                   When the flood waters reached the  
2 Lower Susquehanna River dams, the water scoured another 8 years  
3 of pollutant bearing sediment that had been trapped in the  
4 reservoir behind the dams, much from Conowingo.

5                   This catastrophic pulse of 12 years  
6 worth or 30 million tons of sediment combined with the surge of  
7 fresh water, to inflict the biggest single damaging event ever  
8 recorded in the Chesapeake Bay.

9                   Over the past 40 years, sediment has  
10 accumulated behind the dam to a level exceeding 1972 levels,  
11 creating a threat of damages even greater than that experience  
12 in 1972.

13                   Scientists agree that the question is  
14 not if a catastrophic pulse will occur again, but only a matter  
15 of when.

16                   The second threat occurs as the  
17 Conowingo Reservoir approaches sediment storage capacity and we  
18 see a massive increase in the annual average output of sediment  
19 and phosphorus to the Chesapeake Bay.

20                   The paradox of the Conowingo Dam is  
21 that it currently collects and retains 45 to 55 percent of

1 Susquehanna's sediment.

2 As minimum sediment trapping capacity  
3 or dynamic equilibrium is approached, the annual load of  
4 sediment from the Susquehanna to the Chesapeake has increased  
5 perhaps as much as an additional 2 million tons.

6 Along with this sediment you will see  
7 an additional 30 to 40 percent increase in phosphorus and a two  
8 percent increase in nitrogen. These increases if not mitigated,  
9 will affect aspects of the Chesapeake Bay health from the size  
10 of dead zones to feeding and breeding capability of aquatic  
11 species, including crab and oysters to channel dredging  
12 frequency in costs.

13 The U. S. Army Corps of Engineers,  
14 Baltimore District, and the Maryland Department of the  
15 Environment partner to conduct the Lower Susquehanna River  
16 Watershed Assessment. The LSRWA. This report presents  
17 assessment efforts and document findings.

18 The purpose of this assessment was to  
19 analyze the movement of sediment and associated nutrient loads  
20 within the lower Susquehanna Watershed through the series of  
21 hydroelectric dams, Safe Harbor, Holtwood, and Conowingo,

1 located on the Lower Susquehanna River to the Upper Chesapeake  
2 Bay.

3 Critical components of this watershed  
4 assessment included, one, use of hydrologic, hydraulic, and  
5 sediment transport models to link incoming sediment and  
6 associated nutrient projections to end the reservoir processes  
7 at the dams and to estimate impacts to living resources in the  
8 Upper Chesapeake Bay.

9 Two, identification of watershed-wide  
10 sediment management strategies. And three, assessment of  
11 cumulative impacts from sediment management strategies on the  
12 Upper Chesapeake Bay eco system.

13 We recently consulted with Paul Frank  
14 of Flow West to review the modeling analysis performed for the  
15 LSRWA to determine if the general conclusions presented in the  
16 LSRWA were supported by the underlying modeling analysis to  
17 ensure that the appropriate input data and assumptions were  
18 used, and to offer professional opinions on additional or  
19 revised modeling analysis that should have been performed.

20 Flow West capabilities span the full  
21 suite of water resources management, eco system restoration

1 services, aligned for projects at the intersection of people,  
2 infrastructure,  
3 and the environment.

4 A review summary from Paul's report  
5 concludes that the LSRWA analysis of sediment and nutrient  
6 impacts on the Chesapeake Bay depended on the daisy chain of  
7 models that passed outputs successively from one model to  
8 another.

9 This included the ADH or adaptive  
10 hydraulic model, the CBEMP or Chesapeake Bay Environmental Model  
11 Package and the Corps of Engineers, HECRAS model.

12 At each stage, projected sediment  
13 quantities were lower than the best available estimates or  
14 actual measured data suggested in some cases by considerable  
15 amounts. This resulted in under-representation of potential  
16 sediment impacts and in turn likely nutrient impacts on the  
17 Chesapeake Bay.

18 In general, the ADH and CBEMP modelers  
19 did not appropriately reflect the exponential relationship  
20 between flow and sediment load, and selected input model  
21 flurries that did not reflect the expected magnitude of events

1 likely to occur during the 46-year FERC licensing window.

2           The ADH and CBMP models predicted and  
3 evaluated the impacts of annual sediment loading rates to the  
4 Bay that were lower than estimates made from actual observations  
5 of barometric change and measured sediment loads by the USGS,  
6 therefore under-estimating the impacts of typical annual  
7 sediment loading on the Chesapeake Bay.

8           For example, during review of the  
9 LSRWA documents, Flow West found that the storms were  
10 categorized by peak flurry, but in two different ways, leading  
11 to some confusion.

12           The method by which the peak flow is  
13 calculated has critical implications for how corresponding  
14 sediment in nutrient loads to the Chesapeake Bay during storm  
15 events were modeled in the LSRWA.

16           This is where some of the most  
17 significant flaws with the LSRWA modeling arose. Tropical Storm  
18 Lee, for example, was modeled by both the USGS with the HECRAS  
19 and the Army Corps' ADH model, based on daily average flow.

20           For Tropical Storm Lee, the highest  
21 daily average flow occurred between 12:00 a.m. on September 8,

1 2011 and 12:00 a.m. on September 9, 2011, and was 709,000 cubic  
2 feet per second.

3           While this daily average flow  
4 represents the 24-hour period that symmetrically spans the time  
5 12:00 a.m. on any given day, a 24-hour running average flow can  
6 be calculated at any other similarly arbitrary window, such as  
7 the window that produces the highest peak 24-hour average flow.

8  
9           For Tropical Storm Lee this occurs by  
10 averaging instantaneous flows between 3:30 and 3:30 each day of  
11 the event, resulting in a peak 24-hour average flow of 746,000  
12 cubic feet per second.

13           When the Army Corps of Engineers ADH  
14 modelers compared the results against USGS measurements of  
15 sediment loads, Tropical Storm Lee is represented based on storm  
16 average flow or 632,000 cubic feet per second.

17           Based on instantaneous flow,  
18 Tropical Storm Lee peaked at 778,000 cubic feet per second at  
19 4:15 a.m. on September 9th 2011. In addition, the ADH modeling  
20 would span years 2008 to 2011 included Tropical Storm Lee and  
21 approximately a 20-year interval in the flow event.

1                   The CBEMP modeling which spanned the  
2 years 1991 through 2,000 included the January 1996 storm event,  
3 whose peak flow represented a 25 to 50-year return in a real  
4 flurry rate -- flow event.

5                   However, since only daily average flows were  
6 considered rather than peak flows, this reduced the event from a  
7 909,000 cubic feet per second event to a 622,000 cubic feet per  
8 second event.

9                   It represents an approximately 20-year  
10 return interval flow event similar to Tropical Storm Lee. All  
11 of these discrepancies mean that the LSRWA analysis simply  
12 failed to assess the full potential for scouring associated with  
13 the large-size storm that is predicted to occur during this  
14 license period.

15                   It is notable that the Phase 6  
16 Watershed Model WSM which simulates the whole Chesapeake Bay  
17 Watershed, to estimate loads of sediments and nutrients to the  
18 Bay, predicted little to no scour from Conowingo during that  
19 January 1996 event.

20                   This required modelers to add scour  
21 contributions from Conowingo from the ADH modeling of Tropical

1 Storm Lee to the WSM to bring it into agreement with  
2 observations.

3           Given that the FERC licensing process  
4 for Conowingo is likely to be 40 years plus, the effects of  
5 larger storm events on the Chesapeake Bay should have been  
6 performed.

7           In a given 40-year period there is  
8 approximately a 33 percent chance that a 100-year return  
9 interval flow event will occur, meaning there is a reasonable  
10 chance in the next FERC license period for Conowingo that that  
11 scour event is substantially larger than either Tropical Storm  
12 Lee or the January 1996 event will occur.

13           Because the ADH modeling produced  
14 lower scour predictions from Conowingo than estimated by USGS,  
15 the CBEMP evaluations carried these low scour predictions  
16 forward to the impacts which under-estimated storm-based scour  
17 loads on the Chesapeake Bay.

18           Also, Exelon's application  
19 mischaracterizes the Chesapeake Bay total maximum daily load for  
20 nitrogen, phosphorus and sediment, incorrectly claiming that it  
21 provides a comprehensive framework for addressing any impacts

1 resulting from the reduction of trapping capacity behind the  
2 Conowingo Dam caused by sediment introduced upstream of  
3 Conowingo Dam.

4 This assertion can be readily  
5 dismissed given that the USEPA expressly declined to include a  
6 waste load allocation in the Chesapeake Bay TMDL to account for  
7 scoured sediment and nutrient discharges from the Conowingo Dam  
8 Project.

9 This decision was based on the  
10 incorrect assumption that the Conowingo Reservoir has not yet  
11 reached dynamic equilibrium and would not until after 2025 which  
12 we know is not true.

13 Furthermore, new sets of studies were  
14 completed by the University of Maryland Center for Environmental  
15 Science, that this 401 Certification does not take into account.

16 We will be reviewing these newer studies to ensure that the  
17 appropriate input data and assumptions were used and to offer  
18 professional opinions on additional or revised analysis that  
19 should have been performed.

20 Given this disclosure, we note that  
21 Exelon's application mentions this sediment study it agreed to

1 help fund in 2014, but it does not provide information on the  
2 results or the status of that study.

3           Given the need for additional study  
4 was the primary reason for delaying the licensing process. This  
5 is a serious omission.

6           We and others in the public should not  
7 be required to comment on an application that is so blatantly  
8 incomplete.

9           We are also concerned about eel  
10 placement in Lower Piedmont tributaries south of York Haven,  
11 south of the York Haven Dam.

12           Many of these tributaries are the  
13 highest contributors of nutrients and sediment from the  
14 Susquehanna Watershed to the Chesapeake.

15           Making certain that the eels are in  
16 these tributaries boosts the potential for eastern mussel  
17 populations to regain their former prominence in the eco system.

18           This, in turn, will restore our  
19 natural pollutant reduction system that was in place prior to  
20 the existence of the Lower Susquehanna River Dams.

21           Eels in the Susquehanna appear to be the dominant

1 and almost unique host species for the larvae of (inaudible)  
2 mussels.

3 In conclusion, the Conowingo Dam  
4 Project has profoundly lowered the Lower Susquehanna River  
5 System. It has historically trapped an average of 50 to 67  
6 percent of the annual sediment load from 41.25 to 2 million  
7 tons.

8 Along with the nitrogen and phosphorus  
9 attached to the trapped sediment, if not for the Conowingo Dam,  
10 this load would have been delivered to the Lower Susquehanna  
11 River and Chesapeake Bay at normal rates.

12 Exelon incorrectly claims that the  
13 Conowingo Dam Project has functioned as a best management  
14 practice for the Chesapeake Bay. But this is an overly  
15 simplistic portrayal of the project's effects.

16 In fact, the Dam and its Reservoir  
17 have produced an enormous artificial repository of sediment and  
18 associated nutrients that can be scoured by high-flow events,  
19 re-mobilized and delivered downstream by large storm-induced  
20 flows.

21 Exelon's application for 401 Water

1 Quality Certification cannot be issued unless Maryland imposes a  
2 requirement for the Company to participate as a financial  
3 partner in a specific plan for removing a minimum of 4 million  
4 tons of sediment from Conowingo Reservoir annually until 100  
5 tons are removed, and for maintaining the same level thereafter.

6 If Maryland concludes that it lacks  
7 sufficient information at this time, a conclusion that is well  
8 justified given the shortcomings of the analysis discussed in  
9 this testimony, Maryland should deny the Certification outright.

10 Maryland must also complete a detailed  
11 analysis of the effects of climate change in order to accurately  
12 assess the impacts the project will have on the state's water  
13 quality standards now and in years to come.

14 On behalf of myself and the Lower  
15 Susquehanna River Keeper Association, we thank you for your time  
16 tonight. I'm available for questions. Thank you.

17 MS. KEEHNER: Thank you. Katlyn  
18 Clark? Welcome.

19 MS. CLARK: Hello. My name is Katlyn  
20 Clark. I'm here on behalf of Water Keeper Chesapeake. We are  
21 very short keepers, coast keepers across the region working to

1 make the waters of the Chesapeake Bay and the coastal bays  
2 swimmable and drinkable. Once again, thank you for this  
3 opportunity to speak on Conowingo Dam's re-certification.

4 As we all know, the Conowingo Dam has  
5 been holding back sediment and other pollutants for decades but  
6 recent research shows that the Dam Reservoir has filled up with  
7 sediment much faster than expected.

8 So this enormous artificial repository  
9 of sediment and associated nutrients can be scoured during high  
10 school events, re-mobilized and delivered downstream by large,  
11 store-induced flows.

12 So if we don't deal with this trapped  
13 sediment, all of our efforts to clean up the Bay and meet the  
14 state's 2025 Water Quality and TMDL goals will be devastated by  
15 one catastrophic, I think, Agnes level storm.

16 So in order to protect water quality  
17 and meet our TMDL goals, MDE must include both best management  
18 practices and judging accumulated sediment, nutrients and other  
19 contaminants stored behind the dam, as a 401 Certification  
20 condition.

21 This is essential to protect the

1 Chesapeake Bay, the Suequehanna Flats and other tributaries  
2 downstream from the Dam, from catastrophic events that scour  
3 during storm events that will occur during this 46th year term  
4 of the license.

5 So while I'm certainly not approaching  
6 it without drastic cleanup measures, like dredging at the  
7 Conowingo Dam, this sediment can and will smother aquatic  
8 grasses that provide food, habitats and oxygen for marine life  
9 in the Chesapeake Bay during a catastrophic event.

10 While best management practices  
11 upstream can and should be a part of the cleanup process,  
12 previous studies have shown that if every single best management  
13 practice were implemented, they would only address about 15 to  
14 20 percent of the sediment flow coming downstream and through  
15 the Dam.

16 So unfortunately, these practices  
17 would also do nothing to ameliorate the risk of catastrophic  
18 harm to the Bay from the storage sediment behind the dam.

19 So for this reason, Water Keeper  
20 Chesapeake recommends that MDE require Exelon to participate in  
21 the cleanup process as a financial partner and implements

1 falling.

2           So one of a full suite of upstream  
3 best management practice and dredging to reduce catastrophic  
4 risk of sediment scour during catastrophic events. And three,  
5 resiliency measures downstream to ameliorate the effects of  
6 sediment scour despite the dredging.

7           So at least 4 million tons of sediment  
8 must be removed from the Conowingo Reservoir annually until 100  
9 million tons are removed and we believe that Exelon should be a  
10 partner maintaining that same level thereafter.

11           So as the Susquehanna River Keeper  
12 said that Lower Susquehanna River Watershed assessment which  
13 Exelon has been relying on, falsely concluded that dredging was  
14 not cost-effective and would not yield a significant benefit.

15           This was based on several errors and  
16 false assumptions which were outlined in detail by the  
17 Susquehanna River Keeper, but in short, they include the failure  
18 to evaluate impacts on any large-scale events, the failure to  
19 evaluate the damage of submerged aquatic vegetation during the  
20 growing season, and lastly, the failure to evaluate large-scale  
21 dredging and sediment removal.

1                   So significant climate impacts must  
2 also be considered by MDE during this process because these  
3 impacts will likely increase the predicted levels of scouring  
4 threshold exceedences that were originally assumed for the  
5 project.

6                   So this climate analysis would  
7 definitely be a central component of the State's Water Quality  
8 Certification process.

9                   So there's an obligation not only  
10 under the 401 Water Quality Certification, but under the Federal  
11 Power Act to address water quality  
12 improvements and then share public benefits  
13 like access to recreation which will be  
14 impacted if not addressed during this license  
15 process.

16                   So over the next 46 years, Exelon will  
17 be bringing in billions in revenue for the operation of this  
18 dam, and the Federal Power Act requires a public benefit for  
19 using the public resource of the Susquehanna River. Exelon may  
20 not continue to profit from this public resource without  
21 remediating all of the environmental problems that the Dam has

1 created.

2           So without these conditions, MDE  
3 should certainly deny Exelon's application for re-certification  
4 due to the applications deficiencies which we've outlined in  
5 detail in our written comment. So I will not elaborate on those  
6 today. Thank you so much for your time.

7           MS. KEEHNER: Thank you. Rich  
8 Seigel.

9           MR. SEIGEL: Thank you. My name is  
10 Richard Seigel. I'm a professor of Biology at Towson University,  
11 an expert in the Amphibian and Reptile Conservation and Wildlife  
12 Management, and most of my work is devoted to the things that  
13 most people are scared of like turtles and snakes.

14           So that's why I asked for the  
15 photograph to stay up because the last 10 years myself and my  
16 graduate students and my under-graduate students have been  
17 working on the conservation biology and wildlife management of  
18 one of our state-endangered reptiles which is the northern Mac  
19 Turtle down there on the lower left hand corner.

20           This turtle is only found in the  
21 Susquehanna River in the State of Maryland although it's a very

1 abundant turtle in many other parts of the united States. It's  
2 very rare in Maryland.

3 There's only a population that's  
4 divided by the Dam, probably a total of about 300 individuals  
5 total in the state. It's one of the state's rarest species.

6 We've been working on that biology of  
7 that animal in looking at conservation measures and ways of  
8 managing the population so that the population remains viable  
9 since 2008. Our partners have included Maryland Department of  
10 Natural Resources, the U.S. Fish and Wildlife Service, the  
11 Maryland Department of State Highways Administration and Exelon  
12 as well as the Town of Fort Deposit.

13 We worked on everything from  
14 population biology to nesting ecology to the impacts of  
15 subsidized predators, to diet analysis, where the animals spend  
16 the winter, and of course, mechanisms for determining if the  
17 population is viable.

18 The work that we've done has shown  
19 pretty much that we have a viable population here in Maryland.  
20 There are a number of threats to it, a number of which have been  
21 addressed through the work that we've done with these partners.

1                   The biggest issues that we have right  
2 now and I'm speaking only about the turtle, are things that have  
3 nothing to do with the Dam, per se, or with Exelon, but have to  
4 do with outside threats that I don't think are being adequately  
5 addressed in the testimony that I've heard so far.

6                   And the two biggest threats to that  
7 turtle's existence right now are unregulated harvesting by  
8 commercial fishermen in the Lower Susquehanna that has been  
9 permitted by the Maryland Department of Natural Resources  
10 Fisheries, where their commercial fishermen operate in traps  
11 that would drown Mac Turtles in them if the traps were placed in  
12 the right places and not checked.

13                   We've been unable so far to be able to  
14 determine what impact that's happening.

15                   The second issue that is germane to  
16 the discussions that we've had today is that there have been  
17 proposals made and as I understand it, potential action taken to  
18 begin dredging of some of the sediment that we've been hearing  
19 so much about in Conowingo Pond.

20                   There's a small population of unknown  
21 viability of Mac Turtles in the Conowingo Pond and the impact of

1 that dredging on that endangered species has not been addressed  
2 in any way that I'm aware of.

3 In our contact with Maryland  
4 Department of Natural Resources, we haven't had any information  
5 as to where the dredging would take place, what impact it would  
6 have on the turtle or any contact to see whether or not the  
7 dredging itself was even done with the turtle in mind.

8 So those are our two biggest concerns  
9 right now. Thank you.

10 MS. KEEHNER: Thank you. Betsy  
11 Nichlas.

12 MS. NICHLAS: Hello. My name is  
13 Betsy Nichlas. I'm from Water Keepers Chesapeake as well and so  
14 I'm going to keep my comments brief, since my colleague already  
15 spoke.

16 I have the pleasure or misfortune  
17 depending on how you want to look at it, of having been involved  
18 in this re-licensing for many years so I just wanted to address  
19 a few of the long-standing issues associated with the Conowingo  
20 re-licensing and often occur in re-licensings in general.

21 It's a very long, arduous process.

1 It involves a lot of studies and research. But there's a big,  
2 really important reason for that. We're giving away our public  
3 resources to a private corporation.

4 And with that is the duty to  
5 understand the public benefit that Exelon is providing to us for  
6 giving them the use of our river and our waters for their  
7 exclusive use for profit. That is their duty under Federal Law  
8 that they must do, and their requirement under the Federal Power  
9 Act.

10 And what we're here discussing today  
11 is one of the most important examinations of that. The 401  
12 Water Quality Certification. This is the part of the process  
13 where our state agency who is the entitlement authority here,  
14 looked at all of the impacts to water quality in our state and  
15 looked at every influence of the dam, not just the dam itself,  
16 not just discharges from the dam, but the dam operations,  
17 management, structure, and every part of it has on water quality  
18 in our state.

19 So I've heard many times that people  
20 say that the discharge of sediment is not caused by Exelon. That  
21 may be true but the storage of it, the passage through the dam,

1 the way it discharges, the character and nature of that sediment  
2 discharge. Every single aspect of that is changed and regulated  
3 by that dam. That dam that is there solely for Exelon's profit.

4 So while we're examining this process,  
5 all of that has to be taken into consideration.

6 Exelon recommended \$16,000 a year, I  
7 believe was the number in upstream sediment measures while  
8 making millions of dollars alone off of the Conowingo Project.  
9 But it operates in conjunction with two other dam projects.

10 So taken together, those energy  
11 projects are worth billions of dollars, and over the term of a  
12 50-year license, perhaps more than billions. I would have to get  
13 someone more sophisticated than myself to do the math.

14 So again, we have to think about the  
15 context that we're doing this examination in when we're talking  
16 about perhaps considering impacts like dredging and that may  
17 cost millions of dollars, but the Bay generates trillions of  
18 dollars in economic industry for seafood, for recreation, for  
19 other types of uses, for aesthetics, for everything. For all of  
20 us. That's why we're all here.

21 So all of that has to be taken into

1 consideration when we're looking at this and the impacts of this  
2 project.

3 I heard a comment about endangered  
4 species and dredging. It's true that that impact hasn't been  
5 studied yet, but that's because dredging has not been proposed  
6 as an official condition.

7 So if that is proposed as a condition  
8 there will be a required study of the impacts of dredging.  
9 That's part of the process. We just haven't gotten to that part  
10 of the process yet.

11 So our recommendation as already  
12 articulated is that we want to see very strong water quality  
13 conditions and protections from the State of Maryland. We think  
14 that Exelon's current application is insufficient. We know that  
15 there are additional studies being conducted.

16 We think that all of those need to be  
17 incorporated in the record. Need to be incorporated into  
18 Exelon's application, and all of that information needs to be  
19 seen, publicly available and analyzed to MDE making its decision  
20 on the conditions necessary for this license.

21 We believe that there needs to be

1 upstream remediation of the current sediment problems. That  
2 there needs to be remediation of the sediment problems in the  
3 Dam, and there needs to be resiliency planned for downstream  
4 because regardless of everything we do, we cannot stop the large  
5 level storms that could cause some catastrophic harm events  
6 downstream.

7 So planning for that building and  
8 resiliency will make us all stronger and more prepared for that.

9 I'm happy to answer any questions and  
10 will also be submitting some written comments as follow-up.  
11 Thank you.

12 MS. KEEHNER: Thank you. Jeff  
13 Horstman?

14 MR. HORSTMAN: Good evening. My name  
15 is Jeff Horstman. I'm the Executive Director of Shore Rivers.  
16 Shore Rivers is a non-profit organization that represents the  
17 rivers and bays on the upper and middle Eastern Shore. We work  
18 on the Choptank, the Miles and Wide Eastern Bay, Sassafras and  
19 Chester River.

20 Much of my testimony has already been  
21 covered by other people, so I'm just going to talk generally and

1 briefly.

2 We believe that Exelon has been given  
3 a huge benefit to use our natural resource and we believe that  
4 they need to take a much bigger step in remediation.

5 The idea that Exelon is absolving  
6 themselves of the nutrients that are behind the Dam, I don't agree  
7 with. I think that the nutrients wouldn't be there. They are  
8 changed in consistency. Their delivery message has changed and  
9 the Dam has reached sort of a fulcrum event.

10 And when you get a fulcrum event, you  
11 get enough flow, all of a sudden it's released in a huge pulse  
12 as prior testimony has said, and it can literally destroy  
13 decades of work downstream.

14 So we believe that Maryland and Exelon  
15 have an opportunity and an obligation to lead in this  
16 re-certification process both for water quality and for  
17 operational sustainability.

18 We want Exelon to contribute  
19 financially in a much bigger way, in a partnership with New  
20 York, Maryland and Pennsylvania. That's the third state, isn't  
21 it, yeah.

1                   Climate-related impacts need to be  
2 taken into account and also the advancements in technology.  
3 This is a 46-year lease and best management practices will  
4 change significantly over that time.

5                   So we'd like for conditions to be put  
6 on the application that allow for dredging, a significant  
7 dredging. We want conditions for upstream BMPs, downstream  
8 resiliency, and some sort of technology, incremental increases  
9 over time.

10                  I think that's all I have and just to  
11 keep it brief. I mean everybody else has already said what I  
12 wanted to. Thanks.

13                  MS. KEEHNER: Thank you.

14                  MR. HORSTMAN: Oh, I also want to say  
15 that it's important that we have these hearings, and I know that  
16 some people feel like it takes too long, but it's important.  
17 This is a 46-year process. It has incredible environmental  
18 complications and, you know, could have huge impacts and I think  
19 it's important that we take our time.

20                  MS. KEEHNER: Thank you. Chip  
21 McLeod?

1 MR. McLEOD: Good evening. I do have  
2 a picture. I'd like to put it up if I could?

3 MS. KEEHNER: Yeah, sure.

4 MR. McLEOD: So people could see  
5 this.

6 MS. KEEHNER: See what you can do. I  
7 can hold it for you if you like.

8 MR. McLEOD: All right. Good  
9 evening. My name is Chip McLeod. I'm an attorney from  
10 Chestertown and I'm here on behalf of the Clean Chesapeake  
11 Coalition which is an association of Maryland County  
12 Governments, as well as the Delmarva Fisheries Association from  
13 the standpoint of impacts on the seafood industry attributable  
14 to the current conditions at Conowingo Dam.

15 And let me first say, I want to echo  
16 comments made by the gentlemen, Lower Susquehanna Water Keeper,  
17 with respect to the current conditions at Conowingo and the  
18 shortcomings of a lot of the modeling that's been involved.

19 We filed written comments on behalf,  
20 sorry Denise, if you can't hold onto that.

21 MS. KEEHNER: I'm so weak.

1                   MR. McLEOD:    We filed written  
2                   comments back in August and I'm not going to go into those in  
3                   great detail.  We trust the Department will take them into  
4                   account.

5                   What I have here, and this is how I  
6                   want to start my presentation.  We believe, the coalition  
7                   counties believe that the Water Quality Certification for  
8                   Conowingo is the most important permitting agency action or  
9                   decision on the Bay Restoration Continuum.

10                  That photograph and a photograph that  
11                  the coalition counties have been using for more than five years  
12                  now, first it was published in a USGS, U. S. Geological Survey  
13                  Report from 2012.  And that is a picture of the Chesapeake Bay  
14                  in September 2011 when Tropical Storm Lee occurred.  And that  
15                  is a 100-mile plume starting at Conowingo Dam and reaching the  
16                  mouth of the Potomac River.

17                  Second only to Hurricane Agnes in 1972  
18                  had this kind of storm befallen the Chesapeake Bay Watershed.  
19                  This is a big problem for the Chesapeake Bay.

20                  No matter how you slice it, well, let  
21                  me just say this.  Why this is so important, the Water Quality

1 Certification for Conowingo by the State of Maryland, is that  
2 this is really the last chance to do something meaningful to  
3 protect the Maryland portion of the Chesapeake Bay.

4 And I say that because in the FERC re-  
5 licensing process, which is all but complete except for what  
6 Maryland needs to do, the Environment Impact Statement is very  
7 weak.

8 (Beeping)

9 MR. McLEOD: And I'll be, I don't know  
10 what that was. I'll be blunt about that. We don't think that  
11 FERC, which is an agency really devoted to promoting the  
12 generation of electricity, not protecting the environment,  
13 really took into account the concerns of those of us downstream  
14 as far as the impacts of Conowingo Dam.

15 So FERC wasn't really looking out for  
16 Maryland and we really need to trust the current Administration  
17 and MDE to do that.

18 So this picture, the smothering  
19 sediments. The nutrient loading, the shock loading. You know,  
20 you hear often, that oh, well, if the Dam wasn't there, you  
21 would have gotten it all. Well, heck yes. But Mother Nature

1 has a way of assimilating this kind of stuff. This is not  
2 natural. The Conowingo Dam is not a natural condition. It is  
3 very unnatural and it did drastically change forever the flow of  
4 a mighty river.

5 We daresay that nobody 90 years ago  
6 when they were building this magnificent structure, I mean it's  
7 fascinating. If you've ever toured the Dam, it is a fascinating  
8 facility.

9 But 90 years ago they weren't thinking  
10 about, oh, what happens when that reservoir up there fills up.  
11 And here we are, we're stuck with this problem. This is not  
12 Exelon's problem alone, but Exelon owns the Dam.

13 As been stated, Exelon profits from  
14 this Dam, and they absolutely need to be part of the solution,  
15 but not the sole solution.

16 Other impacts. Impacts on the seafood  
17 industry. There used to be a very robust oyster fishery in the  
18 Chesapeake Bay. We're talking about millions of bushels a year  
19 harvested in the Upper Chesapeake Bay. Not any more. You'll  
20 hear all kinds of reasons why.

21 The number one reason is the amount of

1 mud and sedimentation that's occurred in the Upper Bay.

2           And then we have the shipping issue  
3 and some people lose sight of this. We spend a lot of money, the  
4 federal/state government dredging shipping channels to keep the  
5 Port of Baltimore viable and we must do that. That's a very  
6 important engine for the State of Maryland.

7           80 percent of the sediment dredged out  
8 of those shipping channels is coming down the Susquehanna River.  
9 It's not shoreline erosion.

10           And again, we keep getting it anyway  
11 but we're getting more of it because we've lost trapping  
12 capacity at Conowingo, and we're getting a lot during storm  
13 events.

14           You know, there was a famous book,  
15 well read. Anybody that follows the Chesapeake Bay knows it, by  
16 Tom Horton, published by the Chesapeake Bay Foundation called,  
17 "Turning the Tide: Saving the Chesapeake Bay." Sort of  
18 considered the Bible of Bay restoration.

19           Even in that book there was a section  
20 aptly titled "Time Bomb at Conowingo".

21           Let's look, maybe this is a McGyver

1 moment. Here's the MDE with a chance to defuse, maybe to some  
2 extent that time bomb. And that time bomb is what's going to  
3 happen at the next big storm event.

4 Denise, you don't have to keep holding  
5 it up. I mean, really. So first some context too. We hear  
6 often that the greatest source of pollution to the Chesapeake  
7 Bay is agriculture. It's important in this context,  
8 re-licensing Conowingo Dam that we recognize that the single  
9 largest source of pollution to the Maryland portion of the  
10 Chesapeake Bay is the Susquehanna River. It's not agriculture.

11  
12 It's the Susquehanna River is the  
13 single largest source of pollution loading to the Chesapeake  
14 Bay. I don't care how you want to slice it, that's a fact.

15 And here we have an opportunity to  
16 control the amount of pollution that comes through a conduit  
17 which is the Chesapeake, I'm sorry, the Conowingo Dam. So think  
18 for a moment and I think, we hope MDE when they're considering  
19 conditions to put on this license, that because you have the Dam  
20 there, that is really like a point source discharge. Okay.

21 You have gates and every time they

1 open one of those gates, 15,000 cubic feet per second of water  
2 and pollution comes through and we really think you got to look  
3 at this like a point source.

4 Now, it's not subject to NPDES  
5 permitting. We understand that. But the types of conditions  
6 that MDE should be considering should be like that.

7 So talking about conditions for a  
8 moment, and we really don't think the State of Maryland should  
9 be shy in any way whatsoever in considering conditions to put on  
10 this Water Quality Certification.

11 We absolutely believe there should be  
12 some sediment management condition, dredging, that's vitally  
13 important if for anything to give the Chesapeake Bay some  
14 breathing room, because there is none any more.

15 I encourage everybody here to, after  
16 any storm, go to the DNR, Department of Natural Resources  
17 website, look at "Eyes on the Bay." They have a terrific  
18 website that you can see the same picture of the Bay every day.

19 And all you have to do is look after any minor storm  
20 these days and look at what's happening in the Upper Bay as far  
21 as discharges in terms of sedimentation.

1                   And with all that sediment comes bound  
2 nutrients and Lord knows, whatever other contaminants are in  
3 that reservoir because there's a very important missing bit of  
4 information and that is what is the quality of those sediments.

5                   We talk all about nitrogen and  
6 phosphorus and mud, the dirt. But there's very little evidence  
7 still or information out there about what else lies in that  
8 reservoir.

9                   There is, as the Department knows, the Maryland  
10 Environmental Service is in the midst of undertaking a pilot  
11 dredging project in the Conowingo Reservoir to determine very  
12 importantly any innovation or beneficial re-use of the sediments  
13 that are accumulated above the dam.

14                   The information from that pilot study,  
15 that pilot dredging, is going to be vitally important to  
16 determine, whether there is in fact value in the sediments, not  
17 just a dead cost.

18                   Nobody pretends that this could be an  
19 expensive undertaking as far as dredging Conowingo Dam.

20                   But I will point this out. A few  
21 years ago, a colonel from the Army Corps of Engineers estimated

1 that the cost of dredging Conowingo Dam to get it back to 1996  
2 trapping capacity levels was between 500 million and 3 billion.

3 Now maybe that sounds like a lot of  
4 money but Maryland, the State of Maryland a few years ago had a  
5 watershed implementation plan that devoted \$3 billion to  
6 regulating septic tanks. So if there was a policy determination  
7 that spending \$3 billion regulating septic tanks to help the  
8 Chesapeake Bay was a good idea, people shouldn't be shrinking  
9 from the

10 idea of \$3 billion to dredge Conowingo Reservoir. Now we're not  
11 suggesting that going back to 1996 trapping capacity levels is  
12 the right target. But there absolutely needs to be a sediment  
13 management plan in place to get us some breathing room back.

14 The other important condition and we  
15 certainly articulated this in our written comments, is some kind  
16 of mitigation fund.

17 This is not going to be inexpensive  
18 and this is not entirely on Exelon but there has to be some  
19 contribution to mitigate the undeniable adverse impacts that are  
20 happening because of what's been accumulated above the dam.

21 Maryland taxpayers have spent billions

1 of dollars trying to help the Chesapeake Bay. Billions of  
2 dollars. Add onto that the private investments, the individual  
3 citizens that have contributed because they know it's the right  
4 thing to do to help the Chesapeake Bay.

5 We are downstream and one big storm  
6 away from all of that being proven to be in vain. And I'm not  
7 trying to be too dramatic, but this is a pivotal moment in the  
8 Bay clean-up continuum. And to this day while we've spent  
9 billions downstream, not a dime is spent by the owners of the  
10 Dam to dredge or maintain that Reservoir.

11 And we think to really prove the point  
12 that this mitigation fund is tied to adverse impacts, you tie it  
13 to flow events, tie it to the number of gates they open. They  
14 open up a gate. That means the river's high. That means we're  
15 going to get a lot more pollution. That means a certain  
16 contribution into the fund.

17 And we certainly think that funding  
18 should be available to local governments who are spending a lot  
19 of money trying to do their part to improve the Chesapeake Bay  
20 and the water quality of the Chesapeake Bay.

21 I want to point out as far as a

1 contribution from Exelon towards trying to make things better.

2 Pennsylvania, when they issued their  
3 Water Quality Certification for Conowingo re-licensing, got from  
4 Exelon a \$500,000 a year combined contribution for 15 years to  
5 two conservation districts and the Pennsylvania Boat Commission.

6 That's a drop in the bucket for the impacts of we're trying to  
7 deal with, and to do anything to meaningfully mitigate the  
8 pollution loading upstream that's finding its way into Maryland  
9 waters.

10 We also think, so I've mentioned the  
11 dredging as a condition, the dedicated fund as a condition. We  
12 also think it's very important that the Department have  
13 re-openers in this, and by that we mean things are going to  
14 change. It's been spoken before. Something is going to happen  
15 that we didn't expect. You know, there's going to be a  
16 contaminant discovered in that reservoir that maybe people  
17 didn't think was there or in such quantity. There has to be a  
18 way to reopen this and not just do this once and hope for 46  
19 years things go well.

20 So again, we encourage the Department  
21 not to be shy. This is a time to be very tough, and I frankly

1 believe that Maryland should be honest about what's important to  
2 protect the Maryland portion of the bay.

3 Let Exelon respond by saying or let  
4 them resist and say it's not important to protect the Chesapeake  
5 Bay. You know, we're not saying they're 100 percent  
6 responsible, but there's some, you know, it's time to step up.

7 They brag often about this being the  
8 largest renewable energy facility in Maryland and it is. And  
9 it's a great benefit, less carbon. We get all that, but if  
10 you're going to brag about it, then step up to the plate and  
11 address the adverse impacts that are caused by it.

12 And then meanwhile while we're all  
13 here taking this very seriously, let's not forget that at the  
14 federal level, you have the hydropower industry advocating to  
15 water down the rights of Maryland and other states to do just  
16 this, and that is impose conditions on a re-licensing of a hydro  
17 electric dam.

18 So keep an eye out on House Bill or  
19 the House of Representatives Bill 3043 which has passed the  
20 House of Representatives and now is in the Senate. So we don't  
21 know how that could even impact this process. But that kind of

1 shows you what's at stake here.

2 So this important authority of the  
3 State of Maryland that you have under the Clean Water Act, we  
4 encourage you to exercise it with great wisdom and vigor. Thank  
5 you very much.

6 MS. KEEHNER: Thank you. Ben  
7 Alexandro. Hi.

8 MR. ALEXANDRO: Good evening. Thank  
9 you for the opportunity to talk to you today. My name is Ben  
10 Alexandro. I'm the Water Policy Advocate for the Maryland  
11 League of Conservation Voters which represents over 19,000  
12 supporters in Maryland and many more voters, and I'm also the  
13 Maryland State Lead for the Choose Clean Water Coalition, a  
14 coalition of over 200 different non-profits in the Mid-Atlantic  
15 region, all focused on water issues and some of our partners  
16 even spoke here today.

17 So on behalf of our voters,  
18 supporters, many of our partner organizations, I urge you to  
19 ensure that Exelon plays a large role in mitigating the  
20 significant pollution that's coming over the Susquehanna River  
21 and the Conowingo Dam.

1                   We recognize that the dam has captured  
2 a large amount of the sediment from the Susquehanna River as a  
3 result of the polluting practices that are happening upstream of  
4 the dam.

5                   And we also realize that the dam's  
6 capacity is now full and when large storm events and stormwater  
7 comes down, it scours out a large amount of pollution. And we  
8 also understand that the Conowingo Dam is not the only source of  
9 pollution. It should never be used as an excuse to not do local  
10 projects all around Maryland which are working.

11                   However, the dam does have a  
12 significant impact on the health of the Upper Chesapeake Bay,  
13 and studies show that the operation of the dam itself is causing  
14 scouring events and is causing a portion of the pollution that's  
15 coming over that dam. And some are saying up to even 20 percent  
16 of the pollution coming through there.

17                   So the change in the flow rate also  
18 when they release that, you know, the rates are the highest is  
19 also impacting the health and ecology of fish populations  
20 downstream, a large percentage of the available spawning  
21 populations in the area are also being blocked for migratory

1 fish.

2           So under the Clean Water Act in  
3 Maryland state law, the federal permit and the discharges may  
4 not be issued unless the state certifies that the activity does  
5 not violate Water Quality Standards.

6           So we believe that the dam is not  
7 meeting these standards and we believe it's the responsibility  
8 of Exelon to be part of the solution, as many of the folks here  
9 have said today and we agree with them. And we really think  
10 that the key is funding large-scale pollution reduction projects  
11 and that should be a stipulation of the re-licensing.

12           You should find a lot of on the  
13 ground restoration projects, whether it's planting forests,  
14 repairing buffers, other effective BMPs. That that could really  
15 stop the root cause of the problems and reduce a lot of sediment  
16 at a very low cost.

17           So Exelon should really be a partner  
18 with Maryland and Pennsylvania and even New York on a  
19 collaborative solution to reduce this root cause of the  
20 pollution. Otherwise even if you dredge you'll keep filling up  
21 and you'll be in the same situation.

1                   So the dam should also improve  
2 operations to try to restore those damaged migratory fish  
3 populations, and finally MDE should work with Exelon to make  
4 sure that they explore resiliency measures to mitigate all the  
5 downstream effects that could happen when there are these  
6 scouring events.

7                   Really the protection of the water  
8 quality is what's paramount here in the determination. And we  
9 really urge you to address these root causes of the problem and  
10 Exelon's application is just insufficient without these key  
11 components.

12                   So please do not re-license until  
13 Exelon can either meet these Water Quality Standards or really  
14 becomes a partner in funding a lot of these sufficient projects,  
15 including upstream projects to offset the pollution that's going  
16 through there. So thank you so much for your time.

17                   MS. KEEHNER: Thank you. I have  
18 Katlyn Clark again listed. Is that the same Katlyn Clark that  
19 spoke earlier? Okay. You appear twice. Mariah Davis? Hi.

20                   MS. DAVIS: Hi.

21                   MS. KEEHNER: Welcome.

1 MS. DAVIS: My name is Mariah Davis  
2 and I'm a resident of Annapolis, Maryland. For as long as I can  
3 remember I've cherished and valued the Chesapeake Bay for its  
4 resources it brings to the community and to the economy.

5 I simply cannot imagine a Chesapeake  
6 Bay without our beloved blue crabs.

7 MS. KEEHNER: He's having trouble  
8 hearing. Can you perhaps maybe get a little bit closer.

9 MS. DAVIS: Can you hear me?

10 MS. KEEHNER: Yeah, that's better.

11 MS. DAVIS: Should I start over.

12 MS. KEEHNER: I think it's all right.

13 MS. DAVIS: My name is Mariah Davis  
14 and I'm a resident of Annapolis, Maryland. For as long as I can  
15 remember, I've cherished and valued the Chesapeake Bay for its  
16 resources it brings to the community and to the economy.

17 I simply cannot imagine a Chesapeake  
18 Bay without our beloved blue crabs, the Annapolis boat shows,  
19 Wednesday night sailing races, and the Eastport Yacht Club  
20 Christmas Parade.

21 As you know, the Susquehanna River is

1 the largest river in the Chesapeake Bay and transports up to 50  
2 percent of total fresh water input into the Bay.

3           Committing to improving the rivers and  
4 streams and improving the overall quality of the Chesapeake Bay  
5 is an economic driver for the State of Maryland. This is why I  
6 urge you to require Exelon to contribute financially to  
7 improving the quality of the Chesapeake for a problem that they  
8 are responsible for causing.

9           Exelon Corporation are responsible for  
10 an estimated 20 percent of the degraded water quality  
11 downstream of the Conowingo Dam.

12           Exelon, which owns the Conowingo Dam,  
13 has applied to the government for a new license to operate for  
14 the next 46 years.

15           As Maryland considers the new water  
16 quality impacts of this proposed new operating license for the  
17 Conowingo Dam, the State must insist that Conowingo mitigate its  
18 significant effect on water quality and natural resources of the  
19 Susquehanna River and the Chesapeake Bay.

20           Since its construction in 1928 the  
21 Conowingo Dam has trapped sediment and phosphorus pollution from

1 farm sewage plants. Other sources were behind its structure.  
2 Today sciences estimate that the reservoir is almost completely  
3 filled.

4 The loss of the dam's trapping  
5 capacity was not considered and accounted for when the regional  
6 plans to finally clean up the Bay was established in 2010.

7 Recent estimates by University and  
8 Government scientists indicate that the annual transport of  
9 phosphorous to the Chesapeake is about 1.1 million pounds, more  
10 than what was estimated in 2010.

11 The Chesapeake Bay Partnership Program  
12 has worked across the aisle to do everything that they can with  
13 limited resources to clean up our rivers and streams that flow  
14 into the Bay. It does not make sense to leave the Bay Program  
15 and the Bay states with this financial burden when Exelon  
16 corporation could support mitigation.

17 A new study commissioned by the  
18 Chesapeake Bay Foundation and the nature conservation shows that  
19 Exelon Generation Corporation has the means to make responsible  
20 hunch reasons to mitigate impacts to the Conowingo Dam while  
21 continuing to make a healthy profit.

1                   The study concluded that Conowingo  
2 generates sufficient revenue to provide 27 million to 44 million  
3 annually in remediation depending on flow regimens and energy  
4 prices.

5                   So the solution. Maryland should  
6 require Exelon to contribute financially to the mitigation  
7 effort. The results of the Army Corps of Engineers' study  
8 indicates that the most cost-effective approach to reducing  
9 pollution coming from across the dam is to implement practices  
10 that will reduce pollution upstream.

11                  Innovation is a critical component of  
12 the Bay Cleanup effort and given the length of this license it  
13 will be important to consider additional cost-effective  
14 practices as information becomes available.

15                  A portion of Exelon's contribution  
16 should be used to reduce upstream sediment and nutrient  
17 pollution and prevent it from reaching the dam as well as  
18 implementation of other practices that will benefit downstream  
19 water quality.

20                  Exelon should partner with Maryland,  
21 Pennsylvania, and New York as my other colleagues behind us have

1 said to collaboratively put forth an initiative to reduce  
2 sediment and nutrient pollution.

3 Exelon must be required to make  
4 specific operational changes at the dam, including changes to  
5 restore safe habitat for migratory fish, like the American Shad,  
6 striped bass, for keystone species like freshwater mussels and  
7 aquatic vegetation.

8 Our friends in Congress recognize the  
9 significance and importance of the Chesapeake Bay as a natural  
10 treasure of worldwide significance.

11 If we don't do something now to hold  
12 Exelon Corporation accountable for their negligence, when will  
13 it be done?

14 MS. KEEHNER: Thank you. Alison  
15 Prost. Welcome.

16 MS. PROST: Hello. My name is  
17 Alison Prost. I'm the Maryland Executive Director of the  
18 Chesapeake Bay Foundation. First I want to start off by  
19 thanking Maryland Department of the Environment for this  
20 opportunity. As a few others have mentioned, these re-licensing  
21 discussions have been going on for many years.

1                   There have been many studies but it's  
2 very important to keep the conversation going because it is an  
3 opportunity to make sure that any downstream water quality  
4 impacts to fish passage and impacts to habitat. That result  
5 from the dam's daily operations are mitigated for.

6                   I particularly appreciate the  
7 opportunity that the comment period was extended until January  
8 15th. You've received one set of written comments from  
9 Chesapeake Bay Foundation and we do plan to supplement those  
10 with additional comments. So given the hour and the number of  
11 speakers already, I will try to be brief in my remarks.

12                   The reality is, this is a Water  
13 Quality Standard and we feel that as the dam is currently  
14 operating it is not consistent with applicable water quality  
15 standards.

16                   The origin of the sediment and  
17 nutrients comes from downstream but the daily operations change  
18 the form and the timing and how those nutrients and sediment is  
19 delivered to the main stem of the Bay and they are having  
20 incremental impacts on a daily basis.

21                   Previous studies have focused in on

1 the scouring events and confirmed that these events in  
2 particular have negative impacts downstream on water quality  
3 parameters such as the nutrient loads, dissolved oxygen, water  
4 clarity, Clarifoam A concentrations, especially when these  
5 events take place during the summer months when our water  
6 quality is already stressed.

7           We've seen a range of effects. We  
8 have to determine where the mitigation should lie. Today the  
9 Water Quality Gold Team of the Bay Program was looking at this  
10 very question. They were crunching the numbers again and trying  
11 to determine what's coming downstream that hasn't previously  
12 been accounted for, and what portion of that also relates  
13 quickly to the dam's daily operations.

14           The Chesapeake Bay Foundation feels it  
15 important that this information be considered and be put on the  
16 record as they deliberate between now and the May deadline. And  
17 also important is that that information be shared in a public  
18 way so that the stake holders can also decide how that impacts  
19 the conditions that they are requesting of Maryland Department  
20 of the Environment during this opportunity.

21           So we would appreciate additional

1 dialogue even though people feel that there has been so much  
2 dialogue already. The other new piece of information that we  
3 want to make sure is considered is the fact that previous  
4 studies done by the University of Maryland, Center for  
5 Environmental Studies have talked about absorbed ammonium. This  
6 was something that hadn't previously been discussed, but it's in  
7 the pond sediment.

8           And as we consider dredging as a  
9 mitigation measure or other mitigation, we need to find out if  
10 this ammonium can be scoured, you know, does it mobilize and  
11 become biologically available during the scour events and what  
12 would happen during dredging, and if this ammonium is released  
13 back into the environment during that time.

14           So that is something that hasn't  
15 previously been part of the discussions but most definitely  
16 needs to be considered during this water quality discussion.

17           We do not feel a Water Quality  
18 Certification should be issued until there are assurances of the  
19 compliance with the Clean Water Act's water quality standards  
20 and the Bay TMDL.

21           Again, we are not here to ask that

1 Exelon be responsible for everything that is flowing down from  
2 New York and Pennsylvania, but there does need to be mitigation  
3 required that reflects the impacts that the dam's operations  
4 have in changing the downstream water quality.

5           You heard previously from the Nature  
6 Conservancy this evening that we did Commission economic study.  
7 I believe you will be receiving copies of that. This is to show  
8 that there is a path forward that is a win-win. It keeps the  
9 dam in operation, providing all the benefits that many of the  
10 local residents can better articulate than myself while also  
11 showing that there is capacity to be part of the solution.

12           That Exelon can partner with Maryland  
13 Department of the Environment and the other upstream states to  
14 make sure that we realize our commonly held goals.

15           This license is for many years, I  
16 think 46 years. At the rate we're going now, an adaptive  
17 management is an important condition that we feel needs to be  
18 included in the license.

19           The practices that are found to be  
20 cost-effective today, we may have more tools, innovation over  
21 that amount of time. We can't predict.

1                   People have spoken of dredging this  
2 evening. Dredging may not look to be cost- effective today  
3 given certain parameters, but with innovation its beneficial  
4 re-use becomes more of the mainstream.

5                   That calculation may change. So MDE  
6 should have the ability to go back in over the life of the  
7 license and reassess the conditions.

8                   That is true of flow and fish passage  
9 as well. What we decide today, there aren't many decisions that  
10 we make today that should hold exactly true for 46 years and we  
11 think that the conditions need to be crafted in such a way to  
12 give the state flexibility to protect water quality as we know  
13 it today, and as it comes in the future.

14                  So again, we appreciate Maryland  
15 Department of the Environment's attention to this issue. We  
16 hope the dialogue continues and the information is shared as it  
17 becomes available for new studies. And if at all possible, in  
18 addition to sharing anything that the Bay Program, decides over  
19 the coming weeks, that there also be potentially another public  
20 meeting to discuss the draft conditions and get stakeholder  
21 feedback on those conditions before the license is issued.

1                   We think that this would allow for a  
2 collaboration and hopefully a greater comfort with whatever  
3 those conditions are and have us moving forward towards the  
4 mitigation instead of arguing over those details.

5                   Thank you for your time and look for  
6 our additional written comments in the coming months.

7                   MS. KEEHNER:    Thank you.    I'm at the  
8 end of the list of folks that signed up to speak during  
9 registration.  Is there anyone else from the public who would  
10 like to make a comment or a statement before we conclude?  Okay.

11  
12                   So this completes the taking of formal  
13 testimony at this hearing.  The formal hearing record will  
14 remain open until 5:00 p.m. on Monday, January 15th, 2018.

15                   Comments can be submitted in writing  
16 and this will be on our website as well, to Elder Ghiagiarelli,  
17 Jr., Deputy Program Administrator, Wetlands and Waterways  
18 Program, Water and Science Administration, Maryland Department  
19 of the Environment, 1800 Washington Boulevard, Suite 430,  
20 Baltimore, Maryland, 21230.

21                   The Department expects to make a

1 decision on Exelon's application by no later than May 15, 2018.  
2 The Department's decision will be sent to the interested persons  
3 list as well as to the applicant. We appreciate your interest  
4 in this important action and again, thank you very much for  
5 attending and participating in tonight's hearing. The hearing  
6 is now adjourned.

7 (Whereupon, at 7:54 p.m. the hearing  
8 was adjourned.)

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1 STATE OF MARYLAND

2 SS:

3 I, the undersigned, a Notary Public in and for the  
4 State of Maryland, do hereby certify that the within transcript  
5 was recorded electronically and transcribed under my supervision  
6 to produce the foregoing typewritten transcript in a true and  
7 accurate manner.

8 I FURTHER CERTIFY that I am not of counsel to any of  
9 the parties, nor an employee of counsel, nor any relation to any  
10 of the parties, nor in any way interested in the outcome of this  
11 action.

12 AS WITNESS, my hand and Notarial Seal this 26th day  
13 of December, 2017.



14  
15 Notary Public

**WORD INDEX**

<p>&lt; - &gt; - 25:19 47:4</p> <p>&lt; \$ &gt; \$10 35:8 \$16,000 62:6 \$200 35:12 \$3 75:5, 7, 10 \$3.8 35:9 \$500,000 77:4</p> <p>&lt; 0 &gt; 0 22:13 02 10:13 08 10:13</p> <p>&lt; 1 &gt; 1 18:4 1.1 85:9 10 7:2 11:19, 19 13:10 39:20 57:15 100 52:4 55:8 78:5 100-mile 68:15 100-year 48:8 106 33:10 10th 7:1, 9 10:3 10-year-old 13:15 12 41:5 12:00 45:21 46:1, 5 13 11:15 13th 23:18 15 54:13 77:4 94:1 15,000 73:1 15th 88:8 93:14 160,000 33:12 17 5:5 12:19 18 16:1 1800 93:19 19,000 79:11 1926 31:2 1928 39:12 84:20</p>	<p>1930's 39:21 1951 21:6 1964 13:10 1972 40:19 41:10, 12 68:17 1991 47:2 1996 47:2, 19 48:12 75:1, 11</p> <p>&lt; 2 &gt; 2 24:7 42:5 51:6 2,000 47:2 20 15:16 16:12 22:13 32:3 54:14 80:15 84:10 200 13:20 79:14 2000's 39:21 2008 46:20 58:9 2010 85:6, 10 2011 46:1, 1, 19, 20 68:14 2012 68:13 2013 7:7 2014 27:9 50:1 2016 6:8 7:18 29:3 2017 1:14 5:5 7:1, 9 29:20 95:13 2018 93:14 94:1 2025 49:11 53:14 2098 39:5 20-year 46:21 47:9 21 12:19 28:18 29:15 210 35:11 21015 1:13 21202 2:9 21230 93:20 21st 21:2 26:11 23rd 7:7 24-hour 46:4, 5,</p>	<p>7, 11 25 47:3 250,000 14:1 35:11 26 10:13 26.08.02 7:2 265 35:5 26th 95:12 27 86:2 273 35:4 29 29:2, 20</p> <p>&lt; 3 &gt; 3 10:12 39:21 75:2 3.6 29:1, 19 3:30 46:10, 10 30 41:6 42:7 300 58:4 3043 78:19 30-day 7:3 33 48:8 35 12:21 37 32:3 33:7</p> <p>&lt; 4 &gt; 4 52:3 55:7 4:15 46:19 40 23:8 41:9 42:7 48:4 401 1:12 3:12 4:17, 18 5:4 6:12 7:4 25:3 37:5 49:15 51:21 53:19 56:10 61:11 40-year 48:7 41.25 51:6 410-332-8862 2:10 430 93:19 44 86:2 45 41:21 46 56:16 77:18 84:14 91:16 92:10 46th 25:5 54:3 46-year 8:15 45:1 66:3, 17</p>	<p>&lt; 5 &gt; 5 1:14 5:00 93:14 50 19:21 51:5 84:1 500 2:6 75:2 50-year 47:3 62:12 55 41:21 572 33:7</p> <p>&lt; 6 &gt; 6 1:14 11:16 47:15 6:03 3:2 600 27:20 622,000 47:7 632,000 46:16 67 51:5</p> <p>&lt; 7 &gt; 7 9:4 27:10 28:11 29:6 30:2 7:54 94:7 70 25:14 709,000 46:1 746,000 46:11 778,000 46:18 7-day 28:16 29:11</p> <p>&lt; 8 &gt; 8 41:2 45:21 80 71:7 81 38:8</p> <p>&lt; 9 &gt; 9 10:12 46:1 90 70:5, 9 900 2:8 909,000 47:7 9th 7:7 27:9 46:19</p> <p>&lt; A &gt; a.m 45:21 46:1, 5, 19 ability 92:6</p>	<p>able 11:12, 13 16:15 59:13 absence 14:4 absolutely 70:14 73:11 75:12 absolving 65:5 absorbed 90:5 abundance 17:20 abundant 58:1 accepted 11:7 access 18:3 26:5, 7 56:13 accident 36:1 Accompanying 3:16 account 49:6, 15 66:2 68:4 69:13 accountable 87:12 accounted 85:5 89:12 accumulated 41:10 53:18 74:13 75:20 accurate 95:7 accurately 52:11 achieve 10:5 acid 35:19 acidification 15:5 acquaintances 37:19 acronym 4:12 Act 3:12 4:16, 18 56:11, 18 61:9 79:3 81:2 Act's 90:19 action 11:1 59:17 68:8 94:4 95:11 actions 8:3 activities 32:12 37:20 activity 4:19 35:13 81:4 acts 34:3</p>
--	--	---	---	--

<p><b>actual</b> 44:14 45:4</p> <p><b>adaptive</b> 23:13 25:4 44:9 91:16</p> <p><b>adaptively</b> 23:6</p> <p><b>add</b> 47:20 76:2</p> <p><b>addition</b> 6:16 10:2 26:4 46:19 92:18</p> <p><b>additional</b> 6:18 8:3 9:14 10:4, 16 11:2 26:6 27:20 42:5, 7 43:18 49:18 50:3 63:15 86:13 88:10 89:21 93:6</p> <p><b>Additionally</b> 25:16</p> <p><b>address</b> 6:14 8:4, 11 28:8 29:3 54:13 56:11 60:18 78:11 82:9</p> <p><b>addressed</b> 18:18 56:14 58:21 59:5 60:1</p> <p><b>addressing</b> 18:20 48:21</p> <p><b>adequacy</b> 9:14</p> <p><b>adequately</b> 59:4</p> <p><b>ADH</b> 44:9, 18 45:2, 19 46:13, 19 47:21 48:13</p> <p><b>adjourned</b> 94:6, 8</p> <p><b>adjusting</b> 24:4, 5</p> <p><b>Administration</b> 2:19 4:2 58:11 69:16 93:18</p> <p><b>Administrator</b> 2:14 3:5, 17 93:17</p> <p><b>advancements</b> 66:2</p>	<p><b>adverse</b> 9:5 75:19 76:12 78:11</p> <p><b>Advocate</b> 79:10</p> <p><b>advocating</b> 78:14</p> <p><b>aesthetics</b> 62:19</p> <p><b>affect</b> 42:9</p> <p><b>afford</b> 14:7 15:2</p> <p><b>afforestation</b> 33:5</p> <p><b>aforegoing</b> 95:6</p> <p><b>age</b> 38:4</p> <p><b>agencies</b> 27:10</p> <p><b>agency</b> 61:13 68:8 69:11</p> <p><b>Agnes</b> 19:20 40:20 53:15 68:17</p> <p><b>ago</b> 15:16 16:1, 10 20:4 70:5, 9 74:21 75:4</p> <p><b>agree</b> 41:13 65:6 81:9</p> <p><b>agreed</b> 49:21</p> <p><b>agreement</b> 6:8 7:18 25:2 48:1</p> <p><b>agriculture</b> 72:7, 10</p> <p><b>ahead</b> 11:21</p> <p><b>Air</b> 1:13 36:2</p> <p><b>aisle</b> 85:12</p> <p><b>Alan</b> 19:11, 13</p> <p><b>Alexandro</b> 79:7, 8, 10</p> <p><b>algae</b> 28:12, 14 29:7, 9 30:3</p> <p><b>aligned</b> 44:1</p> <p><b>Alison</b> 87:14, 17</p> <p><b>allocation</b> 49:6</p> <p><b>allow</b> 66:6 93:1</p> <p><b>altered</b> 39:13</p> <p><b>ameliorate</b> 54:17 55:5</p> <p><b>America</b> 21:21 33:18 36:21</p> <p><b>American</b> 39:16, 17 87:5</p>	<p><b>ammonium</b> 90:5, 10, 12</p> <p><b>amount</b> 28:21 29:18 70:21 72:16 80:2, 7 91:21</p> <p><b>amounts</b> 8:20 44:15</p> <p><b>Amphibian</b> 57:11</p> <p><b>analysis</b> 26:1 43:14, 16, 19 44:5 47:11 49:18 52:8, 11 56:6 58:15</p> <p><b>analyze</b> 42:19</p> <p><b>analyzed</b> 63:19</p> <p><b>animal</b> 58:7</p> <p><b>animals</b> 58:15</p> <p><b>Annapolis</b> 3:20 83:2, 14, 18</p> <p><b>annual</b> 25:13 41:18 42:3 45:3, 6 51:6 85:8</p> <p><b>annually</b> 35:9 52:4 55:8 86:3</p> <p><b>answer</b> 26:1 64:9</p> <p><b>anybody</b> 4:9 71:15</p> <p><b>anyway</b> 71:10</p> <p><b>appear</b> 50:21 82:19</p> <p><b>APPEARANCES</b> 2:1</p> <p><b>applicable</b> 5:8, 11, 20 6:17 88:14</p> <p><b>Applicant</b> 4:19 8:4 94:3</p> <p><b>application</b> 3:11 4:13 5:4, 6, 7, 13 6:12, 13 7:4 9:10 10:17 15:1 20:19 48:18 49:21 50:7 51:21 57:3 63:14, 18</p>	<p>66:6 82:10 94:1</p> <p><b>applications</b> 57:4</p> <p><b>applied</b> 84:13</p> <p><b>appreciate</b> 88:6 89:21 92:14 94:3</p> <p><b>approach</b> 86:8</p> <p><b>approached</b> 42:3</p> <p><b>approaches</b> 41:17</p> <p><b>approaching</b> 54:5</p> <p><b>appropriate</b> 43:17 49:17</p> <p><b>appropriately</b> 44:19</p> <p><b>approximately</b> 46:21 47:9 48:8</p> <p><b>aptly</b> 71:20</p> <p><b>Aquatic</b> 6:20 7:11, 16 24:1 42:10 54:7 55:19 87:7</p> <p><b>arbitrary</b> 46:6</p> <p><b>arduous</b> 60:21</p> <p><b>area</b> 13:17 17:9 19:9 26:2 37:19, 20, 21 38:8 80:21</p> <p><b>areas</b> 9:21 38:1</p> <p><b>aren't</b> 92:9</p> <p><b>arguing</b> 93:4</p> <p><b>Arizona</b> 13:5</p> <p><b>Army</b> 27:14 42:13 45:19 46:13 74:21 86:7</p> <p><b>Arnstein</b> 2:5</p> <p><b>arose</b> 45:17</p> <p><b>arrive</b> 3:19</p> <p><b>art</b> 12:14 13:1</p> <p><b>Article</b> 10:12 28:17 29:12</p> <p><b>articles</b> 30:1</p> <p><b>articulate</b> 91:10</p>	<p><b>articulated</b> 63:12 75:15</p> <p><b>articulation</b> 5:8</p> <p><b>artificial</b> 51:17 53:8</p> <p><b>artist</b> 12:16</p> <p><b>asked</b> 11:16 57:14</p> <p><b>asking</b> 4:8</p> <p><b>aspect</b> 62:2</p> <p><b>aspects</b> 35:16 42:9</p> <p><b>assertion</b> 6:16 49:4</p> <p><b>asserts</b> 6:18</p> <p><b>assess</b> 47:12 52:12</p> <p><b>assessing</b> 9:14</p> <p><b>Assessment</b> 42:16, 17, 18 43:4, 10 55:12</p> <p><b>assimilating</b> 70:1</p> <p><b>assistance</b> 8:18</p> <p><b>associated</b> 7:10 8:9, 11 36:3 40:1 42:19 43:6 47:12 51:18 53:9 60:19</p> <p><b>Association</b> 16:6, 11 39:3, 4 52:15 67:11, 12</p> <p><b>assumed</b> 56:4</p> <p><b>assumption</b> 49:10</p> <p><b>assumptions</b> 43:17 49:17 55:16</p> <p><b>assurances</b> 90:18</p> <p><b>attached</b> 51:9</p> <p><b>attendance</b> 10:20, 20</p> <p><b>attending</b> 16:17 27:7 94:5</p> <p><b>attention</b> 92:15</p> <p><b>attorney</b> 67:9</p> <p><b>attracting</b> 35:11</p>
--	--	--	---	--

<p><b>attributable</b> 67:13  <b>August</b> 7:7, 7                  22:19 68:2  <b>authority</b> 61:13                  79:2  <b>available</b> 22:17                  25:21 44:13                  52:16 63:19                  76:18 80:20                  86:14 90:11                  92:17  <b>average</b> 41:18                  45:19, 21 46:3,                  5, 7, 11, 16 47:5                  51:5  <b>averaging</b> 46:10  <b>avoided</b> 15:5, 5  <b>award</b> 28:1  <b>aware</b> 35:18                  60:2  <b>awesome</b> 16:19</p> <p>&lt; B &gt;  <b>Bachelors</b> 31:19  <b>back</b> 14:10                  19:16 27:8                  33:20 39:14                  53:5 68:2 75:1,                  11, 13 90:13                  92:6  <b>background</b> 4:7  <b>balance</b> 15:8  <b>bald</b> 32:10  <b>Baltimore</b> 2:9                  28:12, 12 29:7,                  8 42:14 71:5                  93:20  <b>barometric</b> 45:5  <b>base</b> 14:3  <b>based</b> 10:2                  22:16 45:19                  46:15, 17 49:9                  55:15  <b>basically</b> 40:9  <b>basis</b> 88:20  <b>bass</b> 87:6  <b>Bay</b> 7:12 9:21                  18:8, 9, 14                  20:18 25:17</p>	<p>27:16, 21 30:2                  32:21 40:3, 14,                  16, 17 41:8, 19                  42:9 43:2, 8, 12                  44:6, 10, 17                  45:4, 7, 14                  47:16, 18 48:5,                  17, 19 49:6                  51:11, 14 53:1,                  13 54:1, 9, 18                  62:17 64:18                  68:9, 13, 18, 19                  69:3 70:18, 19                  71:1, 15, 16, 17,                  18 72:7, 10, 14                  73:13, 17, 18, 20                  75:8 76:1, 4, 8,                  19, 20 78:2, 5                  80:12 83:3, 6,                  15, 18 84:1, 2, 4,                  19 85:6, 11, 14,                  14, 15, 18 86:12                  87:9, 18 88:9,                  19 89:9, 14                  90:20 92:18  <b>bays</b> 53:1                  64:17  <b>bear</b> 14:14  <b>bearing</b> 41:3  <b>beautiful</b> 13:6                  16:3, 8 36:10  <b>Beeping</b> 69:8  <b>befallen</b> 68:18  <b>behalf</b> 2:3                  12:13 20:18                  52:14, 20 67:10,                  19 79:17  <b>Bel</b> 1:13  <b>believe</b> 55:9                  62:7 63:21                  65:2, 3, 14 68:6,                  7 73:11 78:1                  81:6, 7 91:7  <b>beloved</b> 83:6, 18  <b>Ben</b> 79:6, 9  <b>beneficial</b> 74:12                  92:3  <b>benefit</b> 16:17                  17:10 18:2                  19:9 24:8</p>	<p>32:16 55:14                  56:18 61:5                  65:3 78:9                  86:18  <b>benefits</b> 6:20                  9:8 25:10                  32:14 35:5                  56:12 91:9  <b>Berkley</b> 38:6  <b>best</b> 5:18                  22:17 23:14                  32:9 33:16, 18                  34:9 36:21                  44:13 51:13                  53:17 54:10, 12                  55:3 66:3  <b>Betsy</b> 60:10, 13  <b>better</b> 21:19                  77:1 83:10                  91:10  <b>beyond</b> 10:4  <b>Bible</b> 71:18  <b>big</b> 21:1, 17                  22:3 61:1                  68:19 72:3                  76:5  <b>bigger</b> 65:4, 19  <b>biggest</b> 36:21                  41:7 59:1, 6                  60:8  <b>biking</b> 17:18  <b>Bill</b> 78:18, 19  <b>billion</b> 75:2, 5,                  7, 10  <b>billions</b> 56:17                  62:11, 12 75:21                  76:1, 9  <b>biologically</b>                  90:11  <b>Biology</b> 57:10,                  17 58:6, 14  <b>bird</b> 19:4  <b>bit</b> 19:19 74:3                  83:8  <b>black</b> 33:18  <b>blatantly</b> 50:7  <b>blend</b> 32:14  <b>blessed</b> 16:2  <b>blockage</b> 7:16</p>	<p><b>blocked</b> 80:21  <b>blocking</b> 15:7  <b>bloom</b> 28:12                  29:7  <b>blooms</b> 28:14                  29:9 30:3  <b>blue</b> 83:6, 18  <b>blunt</b> 69:10  <b>BMPs</b> 66:7                  81:14  <b>boat</b> 15:17                  16:1 77:5                  83:18  <b>boaters</b> 32:10  <b>boating</b> 19:4  <b>bolder</b> 22:7  <b>Bomb</b> 71:20                  72:2, 2  <b>book</b> 71:14, 19  <b>boosts</b> 50:16  <b>born</b> 12:20  <b>boss</b> 3:19  <b>Bottom</b> 15:21  <b>bought</b> 38:5, 6  <b>Boulevard</b> 93:19  <b>bound</b> 74:1  <b>boxes</b> 16:12  <b>brag</b> 78:7, 10  <b>brat</b> 38:9  <b>breathing</b> 73:14                  75:13  <b>breeding</b> 42:10  <b>Brenda</b> 36:9  <b>brief</b> 4:7 5:12                  60:14 66:11                  88:11  <b>briefly</b> 65:1  <b>bring</b> 21:2                  26:11 48:1  <b>bringing</b> 56:17  <b>brings</b> 83:4, 16  <b>Broad</b> 16:2, 5,                  12  <b>brought</b> 38:4  <b>Brown</b> 17:6, 7, 7  <b>brunt</b> 14:15  <b>Bryer</b> 20:10, 11,                  15, 16  <b>bucket</b> 77:6</p>	<p><b>buffers</b> 81:14  <b>build</b> 16:11  <b>building</b> 18:16                  27:9 64:7 70:6  <b>built</b> 19:16                  36:12  <b>Bullock</b> 1:21  <b>bunch</b> 26:10  <b>burden</b> 14:15,                  16 85:15  <b>burn</b> 15:3  <b>burning</b> 34:19                  36:3  <b>bushels</b> 70:18  <b>business</b> 31:7</p> <p>&lt; C &gt;  <b>cabin</b> 16:1  <b>calculated</b>                  45:13 46:6  <b>calculation</b> 92:5  <b>California</b> 13:5  <b>call</b> 12:2, 6  <b>called</b> 71:16  <b>Campbell</b> 15:11,                  12, 13, 21 16:10                  17:3  <b>campus</b> 27:10  <b>can't</b> 67:20                  91:21  <b>capabilities</b>                  5:14 43:20  <b>capability</b> 42:10  <b>capacity</b> 7:13                  8:13, 21 40:8,                  11, 15 41:17                  42:2 49:1                  71:12 75:2, 11                  80:6 85:5                  91:11  <b>captured</b> 32:16                  80:1  <b>capturing</b> 32:20  <b>carbon</b> 21:3, 14                  26:13 36:3, 5                  37:1 78:9  <b>care</b> 24:2                  35:15 72:14  <b>Carl</b> 26:19</p>
---	--	--	--	--

<p>27:4  <b>carried</b> 48:15  <b>carries</b> 22:12  <b>cases</b> 44:14  <b>cash</b> 35:8  <b>Castleton</b> 38:6  <b>catastrophic</b>  40:18 41:5, 14  53:15 54:2, 9,  17 55:3, 4 64:5  <b>categorized</b>  45:10  <b>catwalk</b> 17:15  <b>cause</b> 64:5  81:15, 19  <b>caused</b> 8:8  28:14 29:10  35:18 49:2  61:20 78:11  <b>causes</b> 36:7  82:9  <b>causing</b> 28:10,  19 29:6, 15  36:6 80:13, 14  84:8  <b>CBEMP</b> 44:10,  18 47:1 48:15  <b>CBMP</b> 45:2  <b>Cecil</b> 18:3, 6  35:11  <b>Center</b> 49:14  90:4  <b>central</b> 56:7  <b>century</b> 21:2  26:11  <b>certain</b> 5:10, 15  6:10 50:15  76:15 92:3  <b>certainly</b> 16:16  32:9 33:9  35:17 54:5  57:3 75:15  76:17  <b>Certification</b>  3:12 4:17, 21  5:4, 8 6:12 7:3,  5, 17, 20 9:9  10:17 22:21  25:4 37:6  49:15 52:1, 9</p>	<p>53:19 56:8, 10  61:12 68:7  69:1 73:10  77:3 90:18  <b>certifies</b> 81:4  <b>certify</b> 95:4, 8  <b>chain</b> 44:6  <b>chance</b> 48:8, 10  69:2 72:1  <b>change</b> 8:15  36:6 45:5  52:11 66:4  70:3 77:14  80:17 88:17  92:5  <b>changed</b> 30:21  62:2 65:8, 8  <b>changes</b> 25:10  87:4, 4  <b>changing</b> 91:4  <b>channel</b> 42:11  <b>channels</b> 71:4, 8  <b>Chapter</b> 10:13  <b>character</b> 62:1  <b>chart</b> 25:8  <b>checked</b> 59:12  <b>cherished</b> 83:3,  15  <b>Chesapeake</b>  7:12 9:21 18:8,  14 20:18 21:21  25:17 27:16, 17  32:21 33:4  40:14, 17 41:8,  19 42:4, 9 43:1,  8, 12 44:6, 10,  17 45:7, 14  47:16 48:5, 17,  19 49:6 50:14  51:11, 14 52:20  53:1 54:1, 9, 20  60:13 67:10  68:13, 18, 19  69:3 70:18, 19  71:15, 16, 17  72:6, 10, 13, 17  73:13 75:8  76:1, 4, 19, 20  78:4 80:12  83:3, 5, 15, 17</p>	<p>84:1, 4, 7, 19  85:9, 11, 18  87:9, 18 88:9  89:14  <b>Chester</b> 64:19  <b>Chestertown</b>  67:10  <b>Chip</b> 66:20  67:9  <b>Choose</b> 79:13  <b>Choptank</b> 64:18  <b>Christmas</b> 83:20  <b>citizens</b> 76:3  <b>claiming</b> 48:20  <b>claims</b> 51:12  <b>Clarifoam</b> 89:4  <b>clarity</b> 89:4  <b>Clark</b> 52:18, 19,  20 82:18, 18  <b>Clean</b> 3:12  4:16, 18 16:21  19:2, 20 24:1  34:19 53:13  67:10 79:3, 13  81:2 85:6, 13  90:19  <b>cleaned</b> 18:11  <b>cleanest</b> 14:19  <b>cleanup</b> 54:6,  11, 21 86:12  <b>clean-up</b> 76:8  <b>climate</b> 8:15  36:5, 6 52:11  56:1, 6  <b>Climate-related</b>  66:1  <b>close</b> 13:17  27:1  <b>closed</b> 30:19  <b>closer</b> 83:8  <b>closing</b> 19:7  <b>Club</b> 83:19  <b>coal</b> 15:3  35:20 36:1, 3  <b>coal-fired</b> 34:14  <b>Coalition</b> 67:11  68:6, 11 79:13,  14  <b>coast</b> 32:9 33:9</p>	<p>52:21  <b>coastal</b> 53:1  <b>Code</b> 7:1 10:12  <b>codes</b> 36:11  <b>collaboration</b>  93:2  <b>collaborative</b>  81:19  <b>collaboratively</b>  87:1  <b>colleague</b> 60:14  <b>colleagues</b> 86:21  <b>collects</b> 41:21  <b>College</b> 1:10  3:14  <b>colonel</b> 74:21  <b>combined</b> 41:6  77:4  <b>come</b> 4:8 12:7  17:1 18:10  32:8 38:2  52:13  <b>comes</b> 14:11, 12  18:17 19:19  21:11 37:11  72:16 73:2  74:1 80:7  88:17 92:13  <b>comfort</b> 93:2  <b>coming</b> 32:17  54:14 71:8  79:20 80:15, 16  86:9 89:11  92:19 93:6  <b>COMMENT</b>  1:4 7:4, 6 11:2  50:7 57:5 63:3  88:7 93:10  <b>comments</b> 7:8  8:3 9:7 10:2,  16 11:7, 20  20:19 22:18  23:17 32:14  60:14 64:10  67:16, 19 68:2  75:15 88:8, 10  93:6, 15  <b>commercial</b>  59:8, 10</p>	<p><b>Commission</b>  4:12 77:5 91:6  <b>commissioned</b>  25:20 85:17  <b>commitment</b>  9:14  <b>commitments</b>  5:11 6:2 8:14  10:5  <b>committed</b> 21:8  <b>Committing</b>  84:3  <b>commonly</b> 91:14  <b>communications</b>  12:15  <b>communities</b>  17:10 19:6, 9  <b>Community</b>  1:10 3:14 16:5,  18 19:3 83:4,  16  <b>company</b> 38:1  52:2  <b>compared</b> 46:14  <b>complete</b> 52:10  69:5  <b>completed</b> 49:14  <b>completely</b> 85:2  <b>completes</b> 93:12  <b>complex</b> 14:9  22:2 25:12  <b>compliance</b>  10:5 90:19  <b>complications</b>  66:18  <b>component</b>  56:7 86:11  <b>components</b>  21:2 43:3  82:11  <b>comprehensive</b>  48:21  <b>concentrations</b>  89:4  <b>concern</b> 21:4  <b>concerned</b> 28:9  29:4 30:6 50:9  <b>concerns</b> 8:5  20:18 25:16</p>
---	--	---	---	---

60:8 69:13  
**conclude** 93:10  
**concluded**  
 55:13 86:1  
**concludes** 5:10,  
 12 44:5 52:6  
**conclusion** 26:8  
 51:3 52:7  
**conclusions**  
 43:15  
**concrete** 13:20  
**condition** 53:20  
 63:6, 7 70:2  
 73:12 75:14  
 77:11, 11 91:17  
**conditions** 57:2  
 63:13, 20 66:5,  
 7 67:14, 17  
 72:19 73:5, 7, 9  
 78:16 89:19  
 92:7, 11, 20, 21  
 93:3  
**conduct** 42:15  
**conducted** 63:15  
**conducting** 5:3  
**conduit** 72:16  
**confirmed** 89:1  
**confusion** 45:11  
**Congress** 87:8  
**conjunction**  
 62:9  
**connection** 6:19  
**CONOWINGO**  
 1:5 3:10 4:13  
 6:7, 15, 19 9:13,  
 19 12:13 13:9  
 15:15, 19 16:4,  
 7, 14 17:8, 9, 9,  
 13, 21 18:3, 7,  
 12, 15, 16, 21  
 19:1, 2, 6, 8  
 20:20 21:16  
 22:2, 9, 21  
 27:11, 13, 18  
 28:15 29:10  
 30:4, 9, 19 31:5  
 32:3, 14 33:10  
 34:1, 3, 11, 20  
 36:20 37:3  
 39:12 40:6, 7,

14 41:4, 17, 20  
 42:21 47:18, 21  
 48:4, 10, 14  
 49:2, 3, 7, 10  
 51:3, 9, 13 52:4  
 53:3, 4 54:7  
 55:8 59:19, 21  
 60:19 62:8  
 67:14, 17 68:8,  
 15 69:1, 14  
 70:2 71:12, 20  
 72:8, 17 74:11,  
 19 75:1, 10  
 77:3 79:21  
 80:8 84:11, 12,  
 17, 17, 21 85:20  
 86:1  
**Conservancy**  
 91:6  
**Conservation**  
 57:11, 17 58:7  
 77:5 79:11  
 85:18  
**Conservatory**  
 20:16  
**consider** 13:5  
 14:10, 11 15:4,  
 5 32:13 86:13  
 90:8  
**considerable**  
 44:14  
**consideration**  
 11:8 62:5 63:1  
**considered**  
 31:21 47:6  
 56:2 71:18  
 85:5 89:15  
 90:3, 16  
**considering**  
 10:9 62:16  
 72:18 73:6, 9  
**considers** 15:6  
 84:15  
**consist** 6:3  
**consistency** 65:8  
**consistent** 88:14  
**construction**  
 84:20  
**consultant** 12:15

**consulted** 43:13  
**contact** 60:3, 6  
**contaminant**  
 77:16  
**contaminants**  
 53:19 74:2  
**context** 62:15  
 72:5, 7  
**Continent** 14:20  
**continue** 16:21  
 19:9 21:2  
 23:13 25:20  
 56:20  
**continued** 21:18  
**continues** 92:16  
**continuing**  
 85:21  
**Continuum**  
 68:9 76:8  
**contribute**  
 65:18 84:6  
 86:6  
**contributed**  
 76:3  
**contributes**  
 14:2, 3  
**contribution**  
 75:19 76:16  
 77:1, 4 86:15  
**contributions**  
 47:21  
**contributors**  
 50:13  
**control** 6:6  
 72:16  
**controls** 9:3  
**conversation**  
 24:11 88:2  
**copies** 91:7  
**copy** 11:13  
**corner** 57:19  
**Corporation**  
 4:11 61:3 84:9  
 85:16, 19 87:12  
**Corps** 27:14  
 42:13 44:11  
 46:13 74:21  
 86:7  
**Corps'** 45:19

**corresponding**  
 45:13  
**cost** 23:14  
 25:13 62:17  
 74:17 75:1  
 81:16 92:2  
**cost-effective**  
 8:11 55:14  
 86:8, 13 91:20  
**costs** 42:12  
**couldn't** 34:1  
**counsel** 95:8, 9  
**counties** 68:7,  
 11  
**countless** 16:19  
**countries** 21:12  
**country** 36:5  
 37:13  
**County** 15:13,  
 18 18:3, 6  
 19:14, 19 35:12  
 67:11  
**couple** 39:11  
**course** 22:13  
 25:5 58:16  
**cousin** 36:9  
**cover** 6:11  
**covered** 64:21  
**crab** 42:11  
**crabs** 83:6, 18  
**crafted** 92:11  
**crank** 35:5  
**create** 24:15  
**created** 57:1  
**creating** 41:11  
**Creek** 16:2, 5,  
 13  
**crippled** 35:21  
**Critical** 43:3  
 45:13 86:11  
**crunching** 89:10  
**cubic** 46:1, 12,  
 16, 18 47:7, 7  
 73:1  
**cumulative**  
 43:11  
**current** 9:13  
 18:11 24:19  
 63:14 64:1  
 67:14, 17 69:16

**currently** 41:21  
 88:13  
**Curry** 2:18  
 3:19 4:1  
  
**< D >**  
**Dad** 17:13  
 19:15  
**Daddy** 17:14  
**daily** 22:13  
 45:19, 21 46:3  
 47:5 48:19  
 88:5, 17, 20  
 89:13  
**daisy** 44:6  
**DAM** 1:5 7:13  
 8:12 9:18, 20  
 12:13 13:9, 12,  
 16, 18 14:10  
 15:2, 6, 15  
 16:14 17:8, 10,  
 13, 16 18:3, 7, 8,  
 12, 15, 16, 21  
 19:1, 3, 6, 8, 16  
 20:20 21:16, 20  
 22:2, 4, 11 24:5  
 25:9, 20 26:9,  
 11 27:11, 13, 18,  
 19 28:4, 6, 15  
 29:10 30:4, 8, 9,  
 16, 19 31:5  
 32:3, 14, 16, 17  
 33:13 34:1, 3,  
 10 35:7 36:20  
 38:5, 9 39:13  
 40:14 41:10, 20  
 49:2, 3, 7 50:11  
 51:3, 9, 13, 16  
 53:4, 6, 19 54:2,  
 7, 15, 18 56:18,  
 21 58:4 59:3  
 61:15, 15, 16, 16,  
 21 62:3, 3, 9  
 64:3 65:6, 9  
 67:14 68:15  
 69:14, 20 70:2,  
 7, 12, 14 72:8,  
 17, 19 74:13, 19  
 75:1, 20 76:10  
 78:17 79:21

<p>80:1, 4, 8, 11, 13, 15 81:6 82:1 84:11, 12, 17, 21 85:20 86:9, 17 87:4 88:13 91:9 <b>dam's</b> 16:20 26:7 28:8 29:4 32:20 53:3 80:5 85:4 88:5 89:13 91:3 <b>damage</b> 35:19 55:19 <b>damaged</b> 36:17 82:2 <b>damages</b> 8:8 41:11 <b>damaging</b> 41:7 <b>dams</b> 22:15 40:4, 6 41:2, 4 42:21 43:7 50:20 <b>Dan</b> 31:11, 18 <b>dance</b> 15:3, 4 <b>dangerous</b> 35:20 <b>daresay</b> 70:5 <b>Darlington</b> 1:11 38:8 <b>data</b> 9:11 24:14 26:1 43:17 44:14 49:17 <b>date</b> 5:6 <b>Davis</b> 82:19, 20 83:1, 1, 9, 11, 13, 13 <b>day</b> 3:20 22:13 46:5, 10 73:18 76:8 95:12 <b>days</b> 28:11 29:6 30:2 40:19 73:20 <b>de</b> 27:5 <b>dead</b> 42:10 74:17 <b>deadline</b> 89:16 <b>deal</b> 21:17 36:19 53:12 77:7</p>	<p><b>debris</b> 6:5 9:5 18:8, 9, 17 27:21 <b>decades</b> 53:5 65:13 <b>December</b> 1:14 27:9 95:13 <b>de-certify</b> 15:2 <b>decide</b> 10:4 89:18 92:9 <b>decides</b> 92:18 <b>decision</b> 5:6 9:10 11:3, 11 49:9 63:19 68:9 94:1, 2 <b>decisions</b> 92:9 <b>declined</b> 49:5 <b>dedicated</b> 8:7 77:11 <b>deep</b> 35:18 <b>deficiencies</b> 57:4 <b>definitely</b> 56:7 90:15 <b>defuse</b> 72:1 <b>degated</b> 84:10 <b>Delaware</b> 12:20 13:9 <b>delaying</b> 50:4 <b>deliberate</b> 89:16 <b>deliver</b> 35:4 <b>delivered</b> 51:10, 19 53:10 88:19 <b>delivery</b> 5:19 65:8 <b>Delmarva</b> 67:12 <b>demand</b> 34:15 <b>demands</b> 35:14 36:12 <b>Denise</b> 1:16 3:5 20:11 22:18 67:20 72:4 <b>Denton</b> 36:16 <b>deny</b> 52:9 57:3 <b>DEPARTMENT</b> 1:1 2:16, 20 3:6, 18 4:2 5:3 6:8 7:3, 19 10:3 42:14</p>	<p>58:9, 11 59:9 60:4 68:3 73:16 74:9 77:12, 20 87:19 89:19 91:13 92:15 93:18, 21 <b>Department's</b> 7:9 11:2, 11 94:2 <b>depended</b> 44:6 <b>depending</b> 60:17 86:3 <b>depends</b> 21:7 <b>Deposit</b> 58:12 <b>deprived</b> 35:3 <b>Deputy</b> 2:14 3:17 93:17 <b>design</b> 36:12 <b>designer</b> 12:14 <b>despite</b> 55:6 <b>destroy</b> 65:12 <b>detail</b> 26:5 55:16 57:5 68:3 <b>detailed</b> 22:19 23:18 52:10 <b>details</b> 93:4 <b>determination</b> 75:6 82:8 <b>determine</b> 43:15 59:14 74:11, 16 89:8, 11 <b>determining</b> 58:16 <b>devastated</b> 53:14 <b>devastation</b> 18:13 <b>develop</b> 21:14 <b>developed</b> 23:12, 19 <b>devoted</b> 57:12 69:11 75:5 <b>dialogue</b> 90:1, 2 92:16 <b>didn't</b> 26:4 36:18 77:15, 17 <b>diet</b> 58:15</p>	<p><b>different</b> 15:17 22:3 23:19 25:9, 10 26:10 38:1 45:10 79:14 <b>dime</b> 76:9 <b>dioxide</b> 36:6 37:1 <b>direct</b> 20:17 <b>directly</b> 35:8 <b>Director</b> 2:18 4:1 12:14 39:2 64:15 87:17 <b>dirt</b> 74:6 <b>discharge</b> 4:20, 21 5:1 61:20 62:2 72:20 <b>discharged</b> 29:2, 20 <b>discharges</b> 9:18 49:7 61:16 62:1 73:21 81:3 <b>disclosure</b> 49:20 <b>discovered</b> 15:18 77:16 <b>discrepancies</b> 47:11 <b>discuss</b> 92:20 <b>discussed</b> 37:5 52:8 90:6 <b>discussing</b> 61:10 <b>discussion</b> 4:7 90:16 <b>discussions</b> 59:16 87:21 90:15 <b>dismissed</b> 49:5 <b>disservice</b> 37:12 <b>dissolved</b> 6:4, 5 <b>dissolves</b> 89:3 <b>District</b> 42:14 <b>districts</b> 77:5 <b>divided</b> 58:4 <b>Division</b> 1:2 <b>DNR</b> 73:16 <b>document</b> 42:17 <b>documents</b> 22:19 45:9</p>	<p><b>doing</b> 28:1 31:3, 7 62:15 <b>dollars</b> 13:21 30:10 62:8, 11, 17, 18 76:1, 2 <b>dominant</b> 50:21 <b>don't</b> 15:1 19:21 20:8 25:19 27:5 28:10 29:6 30:9 34:6, 7 35:15 53:12 59:4 65:6 69:9, 10 72:4, 14 73:8 78:20 87:11 <b>downramping</b> 7:15 9:4 <b>downstream</b> 7:16 9:2, 6 20:1, 1 22:17 23:21 39:15 51:19 53:10 54:2, 14 55:5 64:3, 6 65:13 66:7 69:13 76:5, 9 80:20 82:5 84:11 86:18 88:3, 17 89:2, 11 91:4 <b>dozens</b> 21:12 <b>draft</b> 92:20 <b>drains</b> 33:4 <b>dramatic</b> 76:7 <b>dramatically</b> 39:13 <b>drastic</b> 54:6 <b>drastically</b> 70:3 <b>dredge</b> 75:10 76:10 81:20 <b>dredged</b> 71:7 <b>dredging</b> 42:11 54:6 55:3, 6, 13, 21 59:18 60:1, 5, 7 62:16 63:4, 5, 8 66:6, 7 71:4 73:12 74:11, 15, 19 75:1 77:11</p>
---	--	--	--	--

90:8, 12 92:1, 2  
**drinkable** 53:2  
**drinking** 9:5  
**driver** 84:5  
**drives** 35:10  
**drop** 77:6  
**drown** 59:11  
**dual** 9:2  
**Dublin** 38:8  
**duck** 16:12  
**due** 7:12 8:12  
 35:13 36:11  
 37:10 57:4  
**duty** 61:4, 7  
**dynamic** 40:7,  
 12 42:3 49:11

< E >  
**eagles** 32:4, 8,  
 10  
**earlier** 82:19  
**earliest** 17:12  
**earned** 31:19  
**East** 2:6 5:16  
 32:9 33:9  
**Eastern** 13:6  
 21:17 26:12  
 50:16 64:17, 18  
**Eastport** 83:19  
**echo** 67:15  
**eco** 43:12, 21  
 50:17  
**ecology** 58:14  
 80:19  
**economic** 8:8  
 14:4 25:8  
 62:18 84:5  
 91:6  
**economical**  
 21:14 34:16  
 35:2, 5, 8, 12, 18  
**economically**  
 23:20 25:18  
 35:3  
**economics** 25:21  
**economy** 83:4,  
 16  
**educate** 33:5  
**education** 19:4  
**Edward** 1:21

**eel** 30:9 39:17  
 50:9  
**eels** 30:8 50:15,  
 21  
**effect** 84:18  
**effective** 23:2  
 81:14 92:2  
**effects** 36:19  
 48:4 51:15  
 52:11 55:5  
 82:5 89:7  
**effort** 34:7  
 86:7, 12  
**efforts** 33:4  
 42:17 53:13  
**either** 48:11  
 82:13  
**elaborate** 57:5  
**Elder** 2:13  
 3:16 93:16  
**elected** 4:5, 6  
**Electric** 4:13  
 78:17  
**electrical** 33:11  
 34:4  
**electricity** 69:12  
**electronically**  
 95:5  
**elements** 7:18  
**eliminate** 5:19  
**email** 30:18  
**emission** 33:11  
**emissions** 36:6  
**emotional** 17:4  
**emphasis** 7:20  
**employed** 31:21  
**employee** 95:9  
**employing** 35:9  
**employment**  
 36:17  
**encourage**  
 73:15 77:20  
 79:4  
**endangered**  
 5:17 60:1 63:3  
**Energy** 4:12  
 14:18, 19 16:21  
 19:2 21:3, 15  
 33:8 34:8 37:2

62:10 78:8  
 86:3  
**engine** 35:2  
 71:6  
**engineer** 33:17  
**engineering**  
 13:11 31:20  
**Engineers**  
 27:14 42:13  
 44:11 46:13  
 74:21  
**Engineers'** 86:7  
**enhance** 25:4  
**enhanced** 6:4  
**enjoy** 18:1  
**enjoyed** 16:17  
 18:2  
**enjoying** 17:18  
**enormous** 51:17  
 53:8  
**ensure** 5:20  
 10:21 43:17  
 49:16 79:19  
**enter** 18:6  
**entered** 40:2  
**entering** 18:9  
**entire** 18:19  
**entirely** 75:18  
**entitlement**  
 61:13  
**ENVIRONMEN**  
**T** 1:1 2:16, 20  
 3:7, 19 4:3  
 42:15 44:3  
 69:6, 12 87:19  
 89:20 90:13  
 91:13 93:19  
**Environment's**  
 92:15  
**environmental**  
 8:7 10:12 14:8  
 21:1 32:15  
 44:10 49:14  
 56:21 66:17  
 74:10 90:5  
**equal** 35:5  
**equilibrium**  
 40:7, 12 42:3  
 49:11

**equipment** 31:2  
**era** 13:20  
**erosion** 71:9  
**errors** 55:15  
**especially** 89:4  
**ESQUIRE** 2:4  
**essential** 53:21  
**established** 85:6  
**establishing** 8:6  
**estimate** 43:7  
 47:17 85:2  
**estimated** 48:14  
 74:21 84:10  
 85:10  
**estimates** 44:13  
 45:4 85:7  
**evaluate** 55:18,  
 19, 20  
**evaluated** 45:3  
**evaluation** 9:17  
**evaluations**  
 48:15  
**evening** 3:4, 4  
 4:5 20:15  
 39:12 64:14  
 67:1, 9 79:8  
 91:6 92:2  
**evening's** 3:15  
**event** 41:7  
 46:11, 21 47:2,  
 4, 6, 7, 8, 10, 19  
 48:9, 11, 12  
 54:9 65:9, 10  
 72:3  
**events** 8:9, 17  
 16:17 44:21  
 45:15 48:5  
 51:18 53:10  
 54:2, 3 55:4, 18  
 64:5 71:13  
 76:13 80:6, 14  
 82:6 89:1, 1, 5  
 90:11  
**everybody** 3:9  
 20:5 36:4  
 66:11 73:15  
**evidence** 74:6  
**Evjenindis**  
 38:14, 15, 15, 18,

19, 20, 21 39:1,  
 9  
**Ewing** 2:5  
**exactly** 92:10  
**examination**  
 62:15  
**examinations**  
 61:11  
**examining** 9:11  
 62:4  
**example** 33:5  
 34:10 45:8, 18  
**examples** 22:8  
**exceeded** 28:19  
 29:16  
**exceedences**  
 56:4  
**exceeding** 28:17  
 29:12 41:10  
**excellent** 19:10  
**excess** 26:1  
**exchange** 39:17  
**excited** 13:16  
**exclusive** 61:7  
**excuse** 80:9  
**Executive** 39:2  
 64:15 87:17  
**EXELON** 1:4  
 2:3 4:11, 15  
 5:8, 12 6:2, 11,  
 13, 17 16:6, 11,  
 17 20:2 24:17  
 26:6 39:18  
 51:12 54:20  
 55:9, 13 56:16,  
 19 58:11 59:3  
 61:5, 20 62:6  
 65:2, 5, 14, 18  
 70:12, 13 75:18  
 77:1, 4 78:3  
 79:19 81:8, 17  
 82:3, 13 84:6, 9,  
 12 85:15, 19  
 86:6, 20 87:3,  
 12 91:1, 12  
**Exelon's** 3:11  
 5:4 7:4 9:10,  
 14 10:4, 17  
 26:17 48:18  
 49:21 51:21

57:3 62:3  
 63:14, 18 70:12  
 82:10 86:15  
 94:1  
**exercise** 17:19  
 79:4  
**exist** 21:21  
**existence** 50:20  
 59:7  
**existing** 5:21  
 9:11  
**expect** 3:19  
 77:15  
**expected** 44:21  
 53:7  
**expects** 93:21  
**expending** 31:3  
**expensive** 74:19  
**experience**  
 17:19 24:18  
 41:11  
**expert** 32:1  
 57:11  
**explore** 82:4  
**explored** 13:2  
**expodential**  
 44:19  
**exposed** 31:5  
**expressly** 49:5  
**extended** 88:7  
**extent** 10:8  
 72:2  
**extortion** 30:16  
**eye** 78:18  
**Eyes** 73:17

< F >

**facilitate** 11:11  
**facilities** 3:14  
 5:15 16:16  
**Facility** 4:14  
 9:8 13:14 15:8  
 70:8 78:8  
**fact** 19:15 30:5  
 51:16 72:14  
 74:16 90:3  
**factor** 22:13  
**factoring** 8:14  
**failed** 47:12

**failure** 55:17,  
 18, 20  
**fair** 32:19  
**Fairhill** 12:18  
**falling** 32:13  
 55:1  
**false** 55:16  
**falsely** 55:13  
**families** 18:1  
**family** 13:10  
 17:17  
**famous** 71:14  
**far** 11:15 13:2  
 22:14, 15 27:17,  
 18, 18 28:2, 9, 9,  
 17 29:4, 5, 12  
 30:5, 13 59:5,  
 13 69:14 73:20  
 74:19 76:21  
**farm** 33:3 85:1  
**farmers** 33:5  
**farmette** 38:5, 6  
**fascinating** 70:7,  
 7  
**faster** 53:7  
**father** 13:11  
 19:15 38:4  
**favorite** 15:19  
**feasible** 23:20  
 25:7, 18, 19  
**features** 13:6  
**Federal** 4:11,  
 19 56:10, 18  
 61:7, 8 71:4  
 78:14 81:3  
**federally** 27:14  
**feedback** 92:21  
**feeding** 42:10  
**feel** 38:8, 11  
 66:16 88:13  
 90:1, 17 91:17  
**feels** 89:14  
**feet** 46:2, 12, 16,  
 18 47:7, 7 73:1  
**fellow** 3:21  
**FERC** 4:12, 12  
 6:1 8:16 20:3,  
 8 45:1 48:3, 10  
 69:4, 11, 15  
**FERC's** 4:15

**filed** 4:11  
 67:19 68:1  
**filled** 18:9 37:1  
 53:6 85:3  
**filling** 40:9  
 81:20  
**fills** 70:10  
**final** 5:6 11:3,  
 11  
**Finally** 10:7  
 82:3 85:6  
**financial** 8:18  
 32:15 52:2  
 54:21 85:15  
**financially**  
 30:13 65:19  
 84:6 86:6  
**financing** 8:7  
**find** 21:9, 14  
 24:17 81:12  
 90:9  
**finding** 77:8  
**findings** 42:17  
**fine** 12:15 31:2  
**finger** 22:4  
**finished** 13:13  
**Finite** 14:21, 21  
**fire** 37:21  
**firm** 25:21  
**First** 4:4 11:5  
 12:1, 10, 10  
 13:9 20:21  
 23:1 27:13  
 40:17 67:15  
 68:12 72:5  
 87:18  
**firsthand** 13:16  
**fish** 5:16 6:9  
 7:16, 18, 21 8:1,  
 2 23:5, 21 25:1  
 28:13 29:9  
 30:3, 3 39:16  
 58:10 80:19  
 81:1 82:2 87:5  
 88:4 92:8  
**fished** 17:14  
**Fisheries** 59:10  
 67:12  
**fishermen**

32:10 59:8, 10  
**fishery** 70:17  
**fishing** 17:13,  
 15 19:4 30:6  
**Five** 8:20 38:4  
 68:11  
**Flats** 54:1  
**flaws** 45:17  
**flexibility** 24:17,  
 20 92:12  
**floating** 27:19  
**flood** 40:19  
 41:1  
**Florida** 36:10  
**flow** 7:15 9:1,  
 3 22:12 24:9  
 35:8 39:13  
 43:14, 20 44:20  
 45:9, 12, 19, 21  
 46:3, 5, 7, 11, 16,  
 17, 21 47:3, 4,  
 10 48:9 54:14  
 65:11 70:3  
 76:13 80:17  
 85:13 86:3  
 92:8  
**flowing** 91:1  
**flow-related**  
 7:15  
**flows** 5:13  
 6:10 7:14, 14  
 9:2, 4 24:4  
 46:10 47:5, 6  
 51:20 53:11  
**fluctuates** 40:8  
**flurries** 44:21  
**furry** 45:10  
 47:4  
**flush** 28:21  
 29:18  
**focused** 79:15  
 88:21  
**folks** 4:8 24:11  
 81:8 93:8  
**follow** 23:18  
**following** 11:5  
**follows** 71:15  
**follow-up** 64:10  
**food** 54:8

**forcing** 15:3  
**forests** 81:13  
**forever** 70:3  
**forget** 78:13  
**form** 14:12, 19  
 24:8 88:18  
**formal** 27:6  
 93:12, 13  
**former** 50:17  
**Fort** 58:12  
**forth** 87:1  
**fortunate** 32:2  
**forward** 4:8  
 12:7 23:15  
 48:16 91:8  
 93:3  
**found** 14:16, 16  
 45:9 57:20  
 91:19  
**Foundation**  
 25:17 71:16  
 85:18 87:18  
 88:9 89:14  
**Four** 8:18 40:5,  
 19, 20  
**fourth** 23:6  
**frame** 23:12  
**framework**  
 48:21  
**Frank** 43:13  
**frankly** 77:21  
**free** 33:11, 15  
 37:1  
**frequency** 8:17  
 42:12  
**fresh** 41:7 84:2  
**freshwater** 87:6  
**Friends** 12:13  
 37:19 87:8  
**front** 17:15  
**frozen** 24:19  
**fulcrum** 65:9, 10  
**fulfills** 19:3  
**full** 43:20  
 47:12 55:2  
 80:6  
**fun** 17:19  
**functioned**  
 51:13  
**functions** 19:3

**fund** 8:7 50:1  
75:16 76:12, 16  
77:11  
**funded** 27:14  
**funding** 76:17  
81:10 82:14  
**FURTHER** 95:8  
**Furthermore**  
49:13  
**furthest** 40:7  
**fusion** 15:4  
**future** 21:3  
92:13  
  
< G >  
**Gas** 15:4 32:1  
33:11, 15 34:18  
**gases** 34:19  
**gate** 76:14  
**gates** 19:21  
72:21 73:1  
76:13  
**gazing** 16:3  
**general** 12:2  
43:15 44:18  
60:20  
**generally** 64:21  
**generates** 39:17  
62:17 86:2  
**generating** 5:15  
22:10  
**generation**  
13:16 22:11, 12  
23:20 33:15  
34:7 37:7  
69:12 85:19  
**generations**  
17:1 37:1  
**generator** 34:18  
**gentlemen** 67:16  
**Geological**  
68:12  
**germane** 59:15  
**getting** 31:6  
71:10, 11, 12  
**Ghiagiarelli**  
2:13 3:17  
93:16

**give** 24:17  
39:6 73:13  
92:12  
**given** 46:5  
48:3, 7 49:5, 20  
50:3 52:8 65:2  
86:12 88:10  
92:3  
**giving** 61:2, 6  
**glad** 16:15  
**go** 11:21 12:3  
18:6 19:16  
37:20 68:2  
73:16 77:19  
92:6  
**goals** 23:7  
53:14, 17 91:14  
**goes** 15:1 28:3,  
13, 18 29:8, 14  
34:15, 15 35:8  
**going** 11:21  
12:1, 3, 8 27:8,  
11 28:7, 14  
29:3, 9 32:21  
33:6 60:14  
64:21 68:2  
72:2 74:15  
75:11, 17 76:15  
77:13, 14, 15  
78:10 82:15  
87:21 88:2  
91:16  
**Gold** 89:9  
**good** 3:4 11:18  
20:15 22:8  
26:14 30:6  
36:13 39:12  
64:14 67:1, 8  
75:8 79:8  
**gotten** 20:5  
63:9 69:21  
**government**  
71:4 84:13  
85:8  
**governments**  
21:13 67:12  
76:18  
**Grace** 27:5  
**graduate** 57:16

**grandfather**  
35:21  
**graphic** 12:14  
**grasses** 54:8  
**great** 28:1  
30:7 36:7 68:3  
78:9 79:4  
**greater** 41:11  
93:2  
**greatest** 72:6  
**greatly** 14:2  
**green** 14:18  
33:8  
**Greenhouse**  
15:4 33:11, 15  
34:19  
**greeting** 24:7  
**grew** 13:8  
**grid** 33:19 34:2  
**ground** 81:13  
**group** 24:7  
**groups** 19:5  
**growing** 55:20  
**guess** 23:10  
  
< H >  
**habitat** 22:18  
23:2, 20 25:14  
26:14 87:5  
88:4  
**habitats** 7:11  
54:8  
**hadn't** 90:6  
**Haline** 33:12  
**Hall** 1:11  
**hand** 57:19  
95:12  
**handle** 25:19  
**hang** 39:10  
**happen** 21:20  
72:3 77:14  
82:5 90:12  
**happening**  
59:14 73:20  
75:20 80:3  
**happens** 70:10  
**happy** 64:9  
**Harbor** 28:13  
29:8 40:6

42:21  
**hardship** 14:4  
**Harford** 1:10  
3:13 15:13  
19:14, 19 35:12  
**harm** 54:18  
64:5  
**harnessed** 14:20  
**harvested** 70:19  
**harvesting** 59:7  
**hasn't** 37:8  
63:4 89:11  
90:14  
**hauled** 18:11  
**Haven** 40:6  
50:10, 11  
**haven't** 30:7  
60:4 63:9  
**Havre** 27:5  
**He's** 83:7  
**health** 42:9  
80:12, 19  
**healthy** 85:21  
**hear** 69:20  
70:20 72:5  
83:9  
**heard** 30:7  
59:5 61:19  
63:3 91:5  
**HEARING** 1:5  
3:16 5:3 10:11,  
15 11:9, 11, 12  
37:8 59:18  
83:8 93:13, 13  
94:5, 5, 7  
**hearings** 20:3, 4  
66:15  
**heck** 33:20  
69:21  
**HECRAS** 44:11  
45:18  
**height** 34:10, 21  
**held** 10:11  
91:14  
**Hello** 15:12  
31:12 52:19  
60:12 87:16  
**help** 16:6 50:1  
75:7 76:1, 4  
**Here's** 72:1

**Hi** 31:13 37:16  
79:7 82:19, 20  
**high** 53:9 76:14  
**higher** 9:2 26:7  
**highest** 45:20  
46:7 50:13  
80:18  
**high-flow** 51:18  
**highlight** 25:6  
**highlights** 22:20  
**Highways** 58:11  
**hiking** 17:18  
19:4  
**historical** 13:19  
**historically**  
22:15 24:9  
39:19 51:5  
**history** 13:12  
**hold** 28:4  
30:12 32:19  
67:7, 20 87:11  
92:10  
**holders** 89:18  
**holding** 39:14  
53:5 72:4  
**holds** 14:10  
**holistic** 8:10  
**Holtwood** 40:6  
42:21  
**home** 18:7  
36:10, 11  
**honest** 78:1  
**hope** 72:18  
77:18 92:16  
**hopefully** 24:8  
93:2  
**Horstman**  
64:13, 14, 15  
66:14  
**Horton** 71:16  
**host** 51:1  
**hour** 88:10  
**hours** 33:11  
34:21  
**house** 13:12, 13,  
15 36:11 78:18,  
19, 20  
**houses** 33:13

<p><b>huge</b> 16:14 32:15 35:2 65:3, 11 66:18 <b>hunch</b> 85:20 <b>Hurricane</b> 36:10 68:17 <b>husband</b> 15:16 <b>hydraulic</b> 43:4 44:10 <b>hydro</b> 21:11, 15 22:10 26:17 78:16 <b>HYDROELECTRIC</b> 1:5 3:11 39:17 42:21 <b>Hydro-Electric</b> 9:13 13:15 14:18 <b>hydrologic</b> 43:4 <b>hydropower</b> 78:14 <b>Hydro-power</b> 14:20</p> <p>&lt; I &gt; <b>I'd</b> 26:8 36:15 67:2 <b>I'll</b> 31:15 38:13 69:9, 10 <b>I'm</b> 12:1, 3, 8, 12, 14, 15 19:13, 14 20:15, 16 28:9 29:4 30:5 31:6, 14, 17, 18, 18, 18, 21, 21 32:2, 4, 17, 21 33:16 35:17, 17 36:14 37:5, 8 39:1, 3 52:16, 20 54:5 57:10 59:2 60:2, 13, 14 64:9, 15, 21 67:9, 10, 21 68:2 72:17 76:6 79:10, 12 83:2, 14 87:17 93:7 <b>I've</b> 12:18 13:2, 3, 17 27:6 33:6 34:14 38:7</p>	<p>59:5 61:19 77:10 83:3, 15 <b>iceberg</b> 19:5 <b>Idaho</b> 13:4 <b>idea</b> 65:5 75:8, 10 <b>identification</b> 43:9 <b>identifies</b> 10:8 <b>identifying</b> 12:4 <b>ill</b> 14:7 <b>illustration</b> 22:9 <b>Imagine</b> 18:13 83:5, 17 <b>immediate</b> 6:20 <b>immediately</b> 9:20 <b>imminent</b> 40:15 <b>impact</b> 9:17 27:15 59:14, 21 60:5 63:4 69:6 78:21 80:12 <b>impacted</b> 56:14 <b>impacting</b> 80:19 <b>impacts</b> 7:10 9:5 22:6, 7 43:7, 11 44:6, 16, 16 45:3, 6 48:16, 21 52:12 55:18 56:1, 3 58:14 61:14 62:16 63:1, 8 66:1, 18 67:13 69:14 70:16, 16 75:19 76:12 77:6 78:11 84:16 85:20 88:4, 4, 20 89:2, 18 91:3 <b>impaired</b> 10:10 <b>impairments</b> 10:8 <b>implement</b> 6:5 86:9 <b>implementation</b> 5:18 6:7 75:5 86:18 <b>implemented</b> 6:18 54:13</p>	<p><b>implementing</b> 8:10 9:1 <b>implements</b> 54:21 <b>implications</b> 8:15 45:13 <b>importance</b> 87:9 <b>important</b> 9:8 14:17 18:2, 7 19:3 23:8, 13 24:20 33:14 61:2, 11 66:15, 16, 19 68:8, 21 71:6 72:7 73:13 74:3, 15 75:14 77:12 78:1, 4 79:2 86:13 88:2 89:15, 17 91:17 94:4 <b>importantly</b> 74:12 <b>impose</b> 78:16 <b>imposes</b> 52:1 76:19 82:1 <b>improved</b> 9:4 <b>improvements</b> 6:9 16:15 56:12 <b>improving</b> 7:21 84:3, 4, 7 <b>inaudible</b> 20:16 24:21 26:6 35:6 37:3 51:1 <b>inclement</b> 22:18 <b>include</b> 7:10 8:6 23:17 49:5 53:17 55:17 <b>included</b> 43:4 44:9 46:20 47:2 58:9 91:18 <b>includes</b> 9:11, 17 37:21 <b>including</b> 6:4 9:2 40:2 42:11 82:15 87:4 <b>inclusion</b> 22:21</p>	<p><b>incoming</b> 43:5 <b>incomplete</b> 50:8 <b>incorporate</b> 7:17 25:3 <b>incorporated</b> 63:17, 17 <b>incorrect</b> 49:10 <b>incorrectly</b> 48:20 51:12 <b>increase</b> 21:1 40:13 41:18 42:7, 8 56:3 <b>increased</b> 6:9 8:17 42:4 <b>increases</b> 42:8 66:8 <b>incredible</b> 24:9 26:9 66:17 <b>incremental</b> 23:3 66:8 88:20 <b>indicate</b> 85:8 <b>indicates</b> 6:11 86:8 <b>individual</b> 76:2 <b>individuals</b> 58:4 <b>industry</b> 21:13 35:4 62:18 67:13 70:17 78:14 <b>inefficient</b> 34:13, 18 <b>inexpensive</b> 75:17 <b>infinite</b> 14:21 <b>inflict</b> 41:7 <b>influence</b> 61:15 <b>influenced</b> 10:1 <b>information</b> 9:12 50:1 52:7 60:4 63:18 74:4, 7, 14 86:14 89:15, 17 90:2 92:16 <b>infrastructure</b> 44:2 <b>initiative</b> 87:1 <b>innovation</b> 74:12 86:11 91:20 92:3</p>	<p><b>input</b> 43:17 44:20 49:17 84:2 <b>insist</b> 84:17 <b>inspiration</b> 13:1 <b>instance</b> 29:1, 19 <b>instantaneous</b> 46:10, 17 <b>insufficient</b> 63:14 82:10 <b>intention</b> 3:20 <b>interest</b> 12:9 94:3 <b>interested</b> 10:16, 21 12:5 94:2 95:10 <b>Interior</b> 6:8 7:19 <b>interpretation</b> 30:14 <b>intersection</b> 44:1 <b>interval</b> 46:21 47:10 48:9 <b>introduced</b> 6:14 49:2 <b>investments</b> 76:2 <b>involve</b> 33:1 <b>involved</b> 14:9 18:20 60:17 67:18 <b>involves</b> 61:1 <b>Irma</b> 36:10 <b>isn't</b> 65:20 <b>issuance</b> 9:8 <b>issue</b> 14:9, 17 18:15 25:17 59:15 71:2 92:15 <b>issued</b> 7:3 37:6 52:1 77:2 81:4 90:18 92:21 <b>issues</b> 7:8 9:12 14:9 23:16 26:3 36:3 37:5, 11 59:1 60:19 79:15 <b>it'll</b> 31:18</p>
--	--	---	---	--

**it's** 11:5 17:4  
 18:5, 9 19:18,  
 19 23:12 28:8,  
 10 29:4, 5  
 30:20 31:2, 3,  
 15 32:10, 19  
 33:14, 16, 18  
 34:5, 5, 7 35:2  
 37:4, 8 38:18  
 57:21 58:1, 5  
 60:21 63:4  
 65:11 66:15, 16,  
 19 70:6 71:9  
 72:7, 10, 12  
 73:4 76:3  
 77:12, 14 78:4,  
 6, 9 81:7, 13  
 83:12 88:1  
 90:6  
**its** 3:14 5:6, 7,  
 8, 13 6:11, 12,  
 16 8:14 9:18  
 10:9 13:20  
 14:21 17:10  
 18:2, 3 28:17  
 29:12 31:3  
 40:14 51:16  
 63:19 77:8  
 83:3, 15 84:17,  
 20 85:1 92:3

< J >  
**January** 23:17  
 47:2, 19 48:12  
 88:7 93:14  
**Jeff** 64:12, 15  
**job** 28:1 31:3  
**jobs** 13:21  
 35:6, 7  
**join** 3:21  
**joined** 4:5  
**Jr** 93:17  
**judging** 53:18  
**July** 7:1, 9 10:3  
**June** 16:6  
**justified** 52:8

< K >  
**Katlyn** 52:17,

19 82:18, 18  
**kayakers** 32:11  
**Keehner** 1:16  
 3:3, 5 15:10, 20  
 16:9 17:2, 5  
 19:11 20:10, 13  
 26:19 27:3  
 31:8, 11, 13, 16  
 32:6 37:14, 16  
 38:13, 16, 20  
 39:8 52:17  
 57:7 60:10  
 64:12 66:13, 20  
 67:3, 6, 21 79:6  
 82:17, 21 83:7,  
 10, 12 87:14  
 93:7  
**keep** 60:14  
 66:11 71:4, 10  
 72:4 78:18  
 81:20 88:2  
**keeper** 39:1, 2,  
 4 52:15, 20  
 54:19 55:11, 17  
 67:16  
**keepers** 52:21,  
 21 60:13  
**keeps** 91:8  
**Kevin** 12:11, 14  
**key** 7:17 81:10  
 82:10  
**keystone** 87:6  
**kills** 28:13  
 29:9 30:3, 4  
**kind** 23:10, 11,  
 11 68:18 70:1  
 75:15 78:21  
**kinds** 70:20  
**know** 18:15  
 20:8 24:12  
 25:17, 19 28:13  
 30:10, 13 49:12  
 53:4 63:14  
 66:15, 18 69:9,  
 19 71:14 76:3  
 77:15 78:5, 6,  
 21 80:18 83:21  
 90:10 92:12  
**knowledge**  
 23:11

**known** 36:3, 4  
 40:18  
**knows** 71:15  
 74:2, 9

< L >  
**lacks** 52:6  
**ladder** 30:9  
**land** 33:4  
**landfall** 36:11  
**lands** 5:20 6:7  
 21:6  
**landscape**  
 12:16, 16 35:19  
**large** 14:3 34:4  
 51:19 53:10  
 64:4 79:19  
 80:2, 6, 7, 20  
**larger** 25:14  
 48:5, 11  
**large-scale**  
 55:18, 20 81:10  
**large-size** 47:13  
**largest** 13:19  
 21:16, 16 26:11,  
 12 33:8 72:9,  
 13 78:8 84:1  
**larvae** 51:1  
**lastly** 55:20  
**Launch** 16:1  
**Law** 61:7 81:3  
**layman's** 33:12  
**lead** 65:15  
 79:13  
**leadership**  
 26:15, 17  
**leading** 23:7  
 45:10  
**League** 79:11  
**leans** 15:8  
**learned** 13:15  
**learning** 17:19  
**lease** 66:3  
**least-cost** 24:18  
**leave** 85:14  
**Lee** 2:18 3:19  
 4:1 45:18, 20  
 46:9, 15, 18, 20  
 47:10 48:1, 12

68:14  
**left** 57:19  
**legalized** 30:16  
**Lehr** 2:5  
**length** 86:12  
**Let's** 3:3 12:1  
 71:21 78:13  
**letter** 6:11  
**Level** 39:6  
 41:10 52:5  
 53:15 55:10  
 64:5 78:14  
**levels** 26:7  
 41:10 56:3  
 75:2, 11  
**LICENSE** 1:6  
 4:13, 19 6:1  
 8:16 20:6 23:8  
 27:11 30:20  
 31:6 37:7, 10  
 47:14 48:10  
 54:4 56:14  
 62:12 63:20  
 72:19 84:13, 16  
 86:12 91:15, 18  
 92:7, 21  
**licensed** 30:19  
 31:19  
**licensing** 45:1  
 48:3 50:4 69:5  
**lie** 89:8  
**lies** 74:7  
**life** 7:11, 16, 16  
 16:15, 20 17:4  
 19:15 21:7  
 54:8 92:6  
**lifelong** 17:9  
 19:14  
**lifetimes** 33:20  
**lifts** 5:16  
**limit** 28:18  
 29:13  
**limitations** 9:16  
 10:6  
**limited** 85:13  
**limits** 9:4  
 28:20 29:3, 17,  
 21  
**link** 19:2 43:5

**Lisa** 17:6  
**Lise** 17:6, 7  
**list** 10:10, 21  
 11:1 93:8 94:3  
**listed** 82:18  
**listen** 10:18  
**literally** 24:14  
 65:12  
**little** 19:19  
 23:16 47:18  
 74:6 83:8  
**live** 12:18  
 15:13 33:3  
**lived** 27:9 32:2  
 33:6 38:7, 7  
**living** 19:14  
 43:7  
**LLP** 2:5  
**load** 42:3  
 44:20 48:19  
 49:6 51:6, 10  
**loading** 45:3, 7  
 69:19, 19 72:13  
 77:8  
**loads** 42:19  
 45:5, 14 46:15  
 47:17 48:17  
 89:3  
**local** 28:11  
 29:6 35:9  
 37:12 76:18  
 80:9 91:10  
**located** 39:5  
 43:1  
**Lockwood** 2:7  
**logs** 27:19, 20  
**long** 23:8 39:5  
 60:21 66:16  
 83:2, 14  
**longer** 40:10  
**long-standing**  
 60:19  
**long-term** 8:1  
 16:21 33:1  
 37:6, 13  
**look** 24:14  
 25:21 26:4  
 60:17 71:21  
 73:2, 17, 19, 20  
 92:2 93:5

<p><b>looked</b> 34:14 61:14, 15 <b>looking</b> 25:18 58:7 63:1 69:15 89:9 <b>looks</b> 30:15 <b>Lord</b> 74:2 <b>lose</b> 71:3 <b>loss</b> 7:12 8:12 14:6 40:14 85:4 <b>lost</b> 71:11 <b>lot</b> 17:17 22:3, 19 24:1, 11, 12 33:3 34:19 35:4 61:1 67:18 71:3, 12 75:3 76:15, 18 81:12, 15 82:14 <b>love</b> 37:18, 19 38:12 <b>low</b> 21:3 26:13 48:15 81:16 <b>lower</b> 7:11 39:1, 2, 4 40:3, 5 41:2 42:15, 20 43:1 44:13 45:4 48:14 50:10, 20 51:4, 10 52:14 55:12 57:19 59:8 67:16 <b>lowered</b> 51:4 <b>LSRWA</b> 42:16 43:15, 16 44:5 45:9, 15, 17 47:11 <b>lust</b> 35:14 <b>LUTZ</b> 2:4</p> <p>&lt; M &gt; <b>Mac</b> 57:18 59:11, 21 <b>magnificent</b> 70:6 <b>magnitude</b> 44:21 <b>main</b> 88:19 <b>mainstream</b> 92:4</p>	<p><b>maintain</b> 16:8 76:10 <b>maintaining</b> 52:5 55:10 <b>major</b> 21:4 25:16 37:12 <b>majority</b> 7:8 36:5 <b>making</b> 6:3 12:5 50:15 62:8 63:19 <b>management</b> 5:18 6:5, 6 9:5 43:10, 11, 21 51:13 53:17 54:10, 12 55:3 57:12, 17 61:17 66:3 73:12 75:13 91:17 <b>managing</b> 34:3 58:8 <b>manner</b> 95:7 <b>Mariah</b> 82:19 83:1, 13 <b>Marinacci</b> 31:11, 12, 14, 17, 18 32:7 37:15 <b>marine</b> 54:8 <b>Mark</b> 20:10, 15 <b>markets</b> 26:6 <b>married</b> 38:7 <b>MARYLAND</b> 1:1, 13 2:9, 16, 20 3:6, 18 4:2, 17 5:9 6:17 7:1 10:13 12:18, 19 14:13, 14 18:6 20:7 21:6 27:5 32:17 33:1 35:3 37:12 42:14 49:14 52:1, 6, 9, 10 57:21 58:2, 9, 11, 19 59:9 60:3 63:13 65:14, 20 67:11 69:1, 3, 6, 16 71:6 72:9 73:8 74:9 75:4, 4, 21</p>	<p>77:8 78:1, 2, 8, 15 79:3, 10, 12, 13 80:10 81:3, 18 83:2, 14 84:5, 15 86:5, 20 87:17, 19 89:19 90:4 91:12 92:14 93:18, 20 95:1, 4 <b>Maryland's</b> 6:20 7:19 <b>massive</b> 41:18 <b>Masters</b> 31:20 <b>matching</b> 34:20 <b>math</b> 62:13 <b>MATTER</b> 1:4 13:1 29:1 30:5 32:1 41:14 68:20 <b>maximize</b> 22:11 23:20 <b>maximum</b> 7:14 22:14 24:4 48:19 <b>McGyver</b> 71:21 <b>McLaughlin</b> 12:11, 11, 12, 14 <b>McLeod</b> 66:21 67:1, 4, 8, 9 68:1 69:9 <b>MDE</b> 10:8, 9 17:8 21:1 24:13 53:17 54:20 56:2 57:2 63:19 69:17 72:1, 18 73:6 82:3 92:5 <b>MDE's</b> 9:11, 17 10:3, 17 <b>mean</b> 47:11 66:11 70:6 72:5 77:13 <b>meaning</b> 48:9 <b>meaningful</b> 25:7 69:2 <b>meaningfully</b> 77:7</p>	<p><b>means</b> 25:9 32:3 76:14, 14, 15 85:19 <b>measurable</b> 6:20 23:7 <b>measure</b> 90:9 <b>measured</b> 44:14 45:5 <b>measurements</b> 46:14 <b>measures</b> 5:16 6:3, 4, 18 54:6 55:5 58:7 62:7 82:4 <b>Mechanical</b> 31:20 <b>mechanicals</b> 31:3 <b>mechanism</b> 8:2 <b>mechanisms</b> 58:16 <b>meet</b> 5:11, 20 6:17 53:13, 17 82:13 <b>meeting</b> 3:20 9:15, 18 30:18 37:8 81:7 92:20 <b>meetings</b> 27:7 <b>meets</b> 5:1 <b>megawatt</b> 33:11 <b>megawatts</b> 33:7 <b>member</b> 19:14 <b>members</b> 12:2 <b>memories</b> 16:19 17:12 <b>mentally</b> 36:18 <b>mentioned</b> 22:2, 18 24:12 35:10 77:10 87:20 <b>mentioning</b> 10:7 <b>mentions</b> 49:21 <b>message</b> 65:8 <b>method</b> 45:12 <b>methods</b> 14:15 <b>microphone</b> 4:9 12:8 <b>Mid-Atlantic</b> 79:14</p>	<p><b>middle</b> 64:17 <b>midst</b> 74:10 <b>mighty</b> 70:4 <b>migration</b> 39:16 <b>migratory</b> 8:2 23:21 25:1 80:21 82:2 87:5 <b>miles</b> 32:3 36:11 64:18 <b>million</b> 29:1, 19 33:10 35:5, 9, 9, 12 39:20, 21 41:6 42:5 51:6 52:3 55:7, 9 75:2 85:9 86:2, 2 <b>millions</b> 30:10 62:8, 17 70:18 <b>mind</b> 60:7 <b>minimize</b> 5:18 <b>minimized</b> 40:8 <b>minimum</b> 5:13 6:9 7:14 9:2, 3 22:14 24:4 42:2 52:3 <b>mining</b> 35:19, 20 36:1 <b>minor</b> 73:19 <b>minuscule</b> 19:19 <b>minute</b> 4:4 <b>minutes</b> 11:19, 19 39:11 <b>mischaractrizes</b> 48:19 <b>misfortune</b> 60:16 <b>missing</b> 74:3 <b>mitigate</b> 8:7 22:7 23:2 75:19 77:7 82:4 84:17 85:20 <b>mitigated</b> 42:8 88:5 <b>mitigating</b> 79:19 <b>mitigation</b> 6:3 14:15 21:19 25:7 26:5 75:16 76:12</p>
--	--	---	--	--

85:16 86:6  
 89:8 90:9, 9  
 91:2 93:4  
**mitigations** 25:3  
**mixed** 37:8  
**mobilize** 90:10  
**model** 44:7, 10,  
 10, 11, 20 45:19  
 47:16  
**modeled** 45:15,  
 18  
**modelers** 44:18  
 46:14 47:20  
**modeling** 43:14,  
 16, 19 45:17  
 46:19 47:1, 21  
 48:13 67:18  
**models** 43:5  
 44:7 45:2  
**modify** 23:1  
**moment** 72:1,  
 18 73:8 76:7  
**Monday** 93:14  
**money** 18:6  
 28:21 29:18  
 31:4 71:3 75:4  
 76:19  
**monitoring** 6:4  
**Montana** 13:4  
**months** 36:17  
 89:5 93:6  
**Morgantown**  
 31:21  
**Mother** 69:21  
**Motney** 36:10  
**mountainous**  
 13:4  
**mouse** 20:14  
**mouth** 68:16  
**move** 4:7, 9  
 12:8  
**movement** 42:19  
**moving** 23:14  
 39:15 93:3  
**mud** 71:1 74:6  
**multiple** 31:19  
**multi-pronged**  
 8:10  
**mussel** 50:16

**Mussels** 23:21  
 51:2 87:6  
 < N >  
**name** 3:5 4:1  
 12:6, 8, 10, 13  
 15:12 17:7  
 27:4 38:14, 21  
 52:19 57:9  
 60:12 64:14  
 67:9 79:9 83:1,  
 13 87:16  
**natural** 9:1  
 39:15 50:19  
 58:10 59:9  
 60:4 65:3 70:2,  
 2 73:16 84:18  
 87:9  
**nature** 12:16  
 17:20 20:16  
 21:9 62:1  
 69:21 85:18  
 91:5  
**nature-based**  
 24:19  
**navigatable** 4:20  
**nearby** 18:21  
**necessary** 10:5  
 11:5 63:20  
**need** 7:17, 20  
 10:10 20:18  
 22:7 26:13, 14  
 50:3 63:16, 17  
 65:4 66:1  
 69:16 70:14  
 90:9 91:2  
 92:11  
**needs** 7:15  
 19:8 21:19  
 63:18, 21 64:2,  
 3 69:6 75:12  
 90:16 91:17  
**negative** 35:15  
 89:2  
**negligence** 87:12  
**negotiate** 25:2  
**neighborhoods**  
 36:14  
**neighbors** 36:18

**nesting** 58:14  
**never** 80:9  
**new** 4:13 6:1  
 10:8 13:13  
 14:11, 15 19:18  
 28:4 29:3  
 32:18 33:2  
 40:21 49:13  
 65:19 81:18  
 84:13, 15, 16  
 85:17 86:21  
 90:2 91:2  
 92:17  
**newer** 49:16  
**newspaper**  
 28:12 29:7  
**nice** 18:5  
**Nichlas** 60:11,  
 12, 13  
**night** 83:19  
**nitrogen** 28:3  
 29:2, 19 40:2  
 42:8 48:20  
 51:8 74:5  
**non-profit** 64:16  
**non-profits**  
 79:14  
**normal** 51:11  
**normally** 34:13,  
 16  
**north** 13:3  
**northeast** 35:3  
**northern** 57:18  
**northwest** 13:4  
**notable** 47:15  
**Notarial** 95:12  
**Notary** 1:21  
 95:3, 15  
**note** 11:5 13:8  
 31:14 49:20  
**notes** 27:8  
**Nothing's** 30:21  
**notice** 7:3, 9  
 10:3  
**notify** 11:1  
**noting** 9:7  
**now-closed**  
 17:15  
**NPDES** 73:4  
**nuclear** 15:4

**number** 11:18  
 22:1 23:19  
 27:7 36:7, 16  
 58:20, 20 62:7  
 70:21 76:13  
 88:10  
**numbers** 14:3,  
 4, 6 89:10  
**nutrient** 5:19  
 7:10 8:12, 18  
 31:4 37:4, 11  
 42:19 43:6  
 44:5, 16 45:14  
 49:7 69:19  
 86:16 87:2  
 89:3  
**nutrients** 6:6  
 8:9 18:16 28:3  
 32:16 39:14  
 47:17 50:13  
 51:18 53:9, 18  
 65:6, 7 74:2  
 88:17, 18  
 < O >  
**o'clock** 11:16  
**obligation** 56:9  
 65:15  
**observations**  
 45:4 48:2  
**obtain** 4:16  
**obtained** 4:20  
**occasion** 24:18  
**occupation**  
 35:20  
**occur** 41:14  
 45:1 47:13  
 48:9, 12 54:3  
 60:20  
**occurred** 22:14  
 45:21 68:14  
 71:1  
**occurs** 4:21  
 41:16 46:9  
**ocean** 15:5  
**offer** 22:20  
 43:18 49:17  
**offered** 16:3  
**offers** 37:3  
**office** 39:5

**official** 3:15  
 11:6 63:6  
**Officials** 2:12  
 4:5, 6  
**offset** 82:15  
**Oh** 66:14  
 69:20 70:10  
**oil** 15:3  
**oil-fired** 34:17  
**Okay** 4:6  
 20:11 27:3  
 36:16 38:2, 12,  
 13 72:20 82:19  
 93:10  
**old** 13:10  
 17:14 38:8  
**omission** 50:5  
**Once** 36:8  
 53:2 77:18  
**ones** 23:21  
 34:14  
**open** 13:12  
 19:20 73:1  
 76:13, 14 93:14  
**opening** 17:11  
 18:2  
**operate** 5:10, 14  
 21:14 25:9  
 59:10 84:13  
**operates** 22:9,  
 11 62:9  
**operating** 6:1  
 84:16 88:14  
**operation** 5:16  
 9:18 16:21  
 56:17 80:13  
 91:9  
**operational** 9:4  
 65:17 87:4  
**operations** 9:13  
 22:15 61:16  
 82:2 88:5, 17  
 89:13 91:3  
**opinion** 32:21  
**opinions** 43:18  
 49:18  
**opportunities**  
 11:2 14:1  
**opportunity**  
 21:1 26:9, 10,

15, 16 53:3  
 65:15 72:15  
 79:9 87:20  
 88:3, 7 89:20  
**oral** 11:8  
**order** 21:20  
 52:11 53:16  
**Oregon** 13:4  
**organization**  
 21:4 64:16  
**organizations**  
 37:20 79:18  
**origin** 88:16  
**originally** 56:4  
**outcome** 95:10  
**outlined** 55:16  
 57:4  
**output** 41:18  
**outputs** 44:7  
**outright** 52:9  
**outside** 10:20  
 22:14, 15 59:4  
**overall** 29:5  
 84:4  
**overly** 51:14  
**over-using** 8:1  
**owner** 26:7  
**owners** 18:11,  
 21 32:20 76:9  
**owns** 36:9  
 70:12 84:12  
**oxygen** 6:4, 5  
 54:8 89:3  
**oyster** 70:17  
**oysters** 42:11  
  
**< P >**  
**p.m** 1:14 3:2  
 93:14 94:7  
**PA** 13:3  
**Package** 44:11  
**page** 5:12 6:11  
**painter** 12:16  
**Parade** 83:20  
**paradox** 41:20  
**parameters**  
 89:3 92:3  
**paramount** 82:8  
**paraphrase** 5:12

**part** 4:15 6:13  
 10:9 11:6  
 16:14 18:7  
 27:16 37:4  
 40:1 54:11  
 61:12, 17 63:9,  
 9 70:14 76:19  
 81:8 90:15  
 91:11  
**partially** 15:7  
**participants**  
 11:12  
**participate** 3:9  
 52:2 54:20  
**participating**  
 94:5  
**particular** 25:7  
 89:2  
**particularly**  
 88:6  
**parties** 10:16  
 95:9, 10  
**partner** 42:15  
 52:3 54:21  
 55:10 79:18  
 81:17 82:14  
 86:20 91:12  
**partnered** 16:11  
**partners** 16:6  
 23:19 58:9, 21  
 79:15  
**partnership**  
 65:19 85:11  
**parts** 58:1  
**party** 6:15  
**passage** 6:9  
 7:18, 21 8:2  
 23:5 25:1  
 61:21 88:4  
 92:8  
**passed** 44:7  
 78:19  
**Patapsco** 28:17  
 29:12  
**path** 91:8  
**patterns** 39:14  
**Paul** 43:13  
**Paul's** 44:4  
**pay** 18:5 20:2

35:8  
**paying** 30:14, 15  
**PE** 31:18  
**Peach** 15:21  
**peak** 45:10, 12  
 46:7, 11 47:3, 6  
**peaked** 46:18  
**peaking** 34:12,  
 13, 17, 21  
**Pennsylvania**  
 14:12 19:18  
 20:17 28:4, 7  
 33:2 39:6  
 40:21 65:20  
 77:2, 5 81:18  
 86:21 91:2  
**people** 11:15  
 12:4 19:17, 21  
 20:1 21:5, 10  
 32:8, 11 38:1  
 44:1 57:13  
 61:19 64:21  
 66:16 67:4  
 71:3 75:8  
 77:16 90:1  
 92:1  
**percent** 25:13,  
 14 29:2, 20  
 41:21 42:7, 8  
 48:8 51:6  
 54:14 71:7  
 78:5 80:15  
 84:2, 10  
**percentage**  
 14:12 80:20  
**performed**  
 43:14, 19 48:6  
 49:19  
**period** 7:6  
 22:12 28:16  
 29:11 46:4  
 47:14 48:7, 10  
 88:7  
**permit** 4:19  
 81:3  
**permitted** 59:9  
**permitting** 68:8  
 73:5  
**person** 30:7  
**personal** 13:8

**personally**  
 35:21 36:9  
**persons** 10:21  
 94:2  
**perspective**  
 23:13 24:17, 20  
 25:8 26:16, 17  
**Phase** 47:15  
**phosphorous**  
 85:9  
**phosphorus**  
 41:19 42:7  
 48:20 51:8  
 74:6 84:21  
**phosphurous**  
 28:3 40:2  
**photograph**  
 32:9 57:15  
 68:10, 10  
**photographer**  
 12:17  
**photography**  
 32:4  
**picture** 67:2  
 68:13 69:18  
 73:18  
**piece** 90:2  
**Piedmont** 50:10  
**pilot** 74:10, 14,  
 15  
**pivotal** 76:7  
**Place** 2:7 7:20  
 16:11 24:7  
 36:17 50:19  
 60:5 75:13  
 89:5  
**placed** 10:21  
 59:11  
**placement** 50:10  
**places** 32:9  
 59:12  
**plan** 24:15  
 28:17 52:3  
 75:5, 13 88:9  
**planned** 64:3  
**planning** 64:7  
**plans** 6:6 85:6  
**Plant** 16:1  
 29:12  
**planting** 81:13

**plants** 28:19  
 29:15 34:2, 14,  
 16 85:1  
**plastic** 27:19  
**plate** 78:10  
**play** 15:13  
**player** 22:2  
**players** 22:4  
**playing** 17:13  
**plays** 15:7  
 79:19  
**please** 10:20  
 12:6 39:10  
 82:12  
**pleasure** 60:16  
**plume** 68:15  
**plus** 15:3  
 25:14 37:20  
 48:4  
**point** 11:21  
 22:4 72:20  
 73:3 74:20  
 76:11, 21  
**policy** 75:6  
 79:10  
**pollutant** 41:3  
 50:19  
**pollutants** 6:14  
 40:2, 20 53:5  
**polluting** 80:3  
**pollution** 18:20  
 23:3 24:13  
 28:9, 17, 19  
 29:5, 12, 16  
 36:2 72:6, 9, 13,  
 16 73:2 76:15  
 77:8 79:20  
 80:7, 9, 14, 16  
 81:10, 20 82:15  
 84:21 86:9, 10,  
 17 87:2  
**pollutions** 10:1  
**Pond** 6:15  
 9:19 15:19  
 16:16 59:19, 21  
 90:7  
**pool** 6:7  
**population** 58:3,  
 8, 8, 14, 17, 19  
 59:20

**populations** 50:17 80:19, 21 82:3  
**Port** 71:5  
**portion** 9:20 69:3 72:9 78:2 80:14 86:15 89:12  
**portrayal** 51:15  
**position** 13:19  
**possible** 31:6 37:7 92:17  
**potential** 10:8 44:15 47:12 50:16 59:17  
**potentially** 92:19  
**Potomac** 68:16  
**pounds** 29:1, 19 85:9  
**power** 13:13, 14 14:18 15:21 21:11, 15 22:10, 11 23:20 26:13, 18 33:8, 18 34:2, 4, 5, 6, 7, 12, 13, 14, 17 35:15, 16 37:6 39:17 56:11, 18 61:8  
**powered** 33:13  
**powers** 24:6  
**practice** 51:14 54:13 55:3  
**practices** 5:18 53:18 54:10, 16 66:3 80:3 86:9, 14, 18 91:19  
**Pratt** 2:6  
**precautionary** 24:3  
**predators** 58:15  
**predict** 91:21  
**predicted** 45:2 47:13, 18 56:3  
**predictions** 48:14, 15  
**prepared** 64:8  
**Present** 2:12

**presentation** 27:6, 12 37:18 68:6  
**presentations** 27:10  
**presented** 43:15  
**presents** 5:8 42:16  
**presiding** 1:16 3:15  
**pretends** 74:18  
**pretty** 35:3 36:13 58:19  
**prevent** 32:21 37:10 86:17  
**preventing** 39:14, 15  
**prevents** 18:8  
**previous** 27:6 54:12 88:21 90:3  
**previously** 89:11 90:6, 15 91:5  
**price** 34:15  
**prices** 86:4  
**primary** 8:1 50:4  
**Prior** 11:4 50:19 65:12  
**private** 39:18 61:3 76:2  
**probably** 13:12 58:4  
**problem** 18:18 20:2 68:19 70:11, 12 82:9 84:7  
**problems** 19:17 34:4 35:1, 18 56:21 64:1, 2 81:15  
**procedure** 27:8  
**proceed** 12:1  
**process** 3:10 4:8, 15 25:4 48:3 50:4 54:11, 21 56:2, 8, 15 60:21 61:12 62:4

63:9, 10 65:16 66:17 69:5 78:21  
**processes** 43:6  
**produce** 16:21 34:12 35:15 95:6  
**produced** 11:13 32:17 34:13 48:13 51:17  
**produces** 33:10 46:7  
**producing** 35:16  
**professional** 12:15 43:18 49:18  
**professor** 57:10  
**profit** 56:20 61:7 62:3 85:21  
**profitable** 25:20  
**profits** 26:2 39:18 70:13  
**profoundly** 51:4  
**Program** 2:14, 15 3:6, 17, 18 85:11, 14 89:9 92:18 93:17, 18  
**progress** 24:8  
**Project** 3:11 5:10, 14, 19, 20, 20 6:7, 16, 19 9:9, 13 49:8 51:4, 13 52:12 56:5 62:8 63:2 74:11  
**project's** 51:15  
**projected** 44:12  
**projections** 43:6  
**projects** 8:19 44:1 62:9, 11 80:10 81:10, 13 82:14, 15  
**prominence** 50:17  
**promoting** 69:11  
**pronounce** 26:20 38:16

**pronounced** 38:18  
**property** 35:10  
**proposal** 23:17 25:12  
**proposals** 59:17  
**proposed** 5:10 63:5, 7 84:16  
**proposing** 6:13  
**Prost** 87:15, 16, 17  
**protect** 5:17, 21 21:6 53:16, 21 69:3 78:2, 4 92:12  
**protecting** 18:7 69:12  
**protection** 6:3 82:7  
**protections** 63:13  
**prove** 76:11  
**proven** 76:6  
**provide** 4:10 6:20 11:17, 19 17:19 20:19 21:3 23:14, 19 26:7 34:17 50:1 54:8 86:2  
**provided** 13:20  
**provides** 13:21 19:6 26:2 32:15 34:11 48:21  
**providing** 8:18 61:5 91:9  
**PUBLIC** 1:4, 21 3:16 5:3 7:3, 6, 9 9:7 10:3, 11 11:2 12:2 31:17 50:6 56:12, 18, 19, 20 61:2, 5 89:17 92:19 93:9 95:3, 15  
**publicly** 25:21 63:19  
**published** 68:12 71:16  
**pulls** 17:21

**pulse** 40:18 41:5, 14 65:11  
**purchase** 11:13  
**purchased** 15:17 16:1  
**purpose** 10:15 42:18  
**pursuant** 5:13 7:1 10:11  
**put** 30:9 33:12 34:19 66:5 67:2 72:19 73:9 87:1 89:15  
**< Q >**  
**Qualify** 7:19  
**Quality** 3:12 4:17 5:1, 4, 7, 9, 11, 21 6:12, 17 7:2, 5, 8, 11, 17 8:14 9:9, 12, 15, 19 10:6, 14, 17 24:11 37:6 52:1, 13 53:14, 16 56:7, 10, 11 61:12, 14, 17 63:12 65:16 68:7, 21 73:10 74:4 76:20 77:3 81:5 82:8, 13 84:4, 7, 10, 16, 18 86:19 88:3, 13, 14 89:2, 6, 9 90:16, 17, 19 91:4 92:12  
**quantities** 44:13  
**quantity** 77:17  
**question** 41:13 89:10  
**questioning** 20:7  
**questions** 52:16 64:9  
**quickly** 89:13  
**quite** 14:4  
**< R >**  
**race** 7:14  
**races** 83:19

<p><b>raised</b> 7:8 13:10 <b>ramping</b> 24:5 <b>RANDALL</b> 2:4 <b>range</b> 89:7 <b>rapidly</b> 40:12 <b>rare</b> 5:17 58:2 <b>rarest</b> 58:5 <b>rate</b> 47:4 80:17 91:16 <b>rates</b> 9:3 24:5 39:15 45:3 51:11 80:18 <b>rational</b> 5:14 <b>reached</b> 40:7 41:1 49:11 65:9 <b>reaching</b> 68:15 86:17 <b>read</b> 11:5 71:15 <b>readily</b> 49:4 <b>reading</b> 31:15 <b>real</b> 47:3 <b>reality</b> 88:12 <b>realize</b> 14:8 80:5 91:14 <b>really</b> 21:12 22:2, 3 23:8, 10, 12 25:7, 13 26:14 61:2 69:2, 11, 13, 15, 16 72:5, 20 73:2, 8 76:11 81:9, 14, 17 82:7, 9, 13 <b>reason</b> 34:15 50:4 54:19 61:2 70:21 <b>reasonable</b> 48:9 <b>reasons</b> 26:10 70:20 85:20 <b>reassess</b> 92:7 <b>recall</b> 33:19 <b>receive</b> 11:7 <b>received</b> 5:5 7:8 9:7 10:2 88:8 <b>receiving</b> 91:7 <b>reception</b> 24:9</p>	<p><b>re-certification</b> 15:8 53:3 57:3 65:16 <b>recognize</b> 4:4 72:8 80:1 87:8 <b>recommend</b> 24:13 25:2 <b>recommendation</b> 23:18 24:16 63:11 <b>recommendation</b> s 22:20 24:10 <b>recommended</b> 62:6 <b>recommends</b> 54:20 <b>record</b> 11:6, 10 63:17 89:16 93:13 <b>recorded</b> 41:8 95:5 <b>recreation</b> 18:1 56:13 62:18 <b>recreational</b> 5:15 13:21 16:16 32:12, 15 35:11 <b>reduce</b> 9:5 28:8 29:3 55:3 81:15, 19 86:10, 16 87:1 <b>reduced</b> 47:6 <b>reducing</b> 40:11 86:8 <b>reduction</b> 8:18 49:1 50:19 81:10 <b>reference</b> 20:19 <b>reflect</b> 44:19, 21 <b>reflects</b> 91:3 <b>regain</b> 50:17 <b>regarding</b> 3:10 9:12 <b>regardless</b> 64:4 <b>regards</b> 9:15 <b>regime</b> 9:1 <b>regimens</b> 86:3 <b>regimes</b> 9:3 <b>region</b> 13:19 14:5 17:1, 1</p>	<p>18:19 19:2 52:21 79:15 <b>regional</b> 35:10 85:5 <b>registration</b> 93:9 <b>regulated</b> 62:2 <b>regulating</b> 75:6, 7 <b>Regulation</b> 7:2 <b>Regulations</b> 7:2 10:13 <b>regulatory</b> 3:10 4:12 <b>relate</b> 35:20 36:8 <b>relates</b> 89:12 <b>relating</b> 6:9 <b>relation</b> 95:9 <b>relationship</b> 44:19 <b>relay</b> 35:20 <b>release</b> 8:8 80:18 <b>released</b> 65:11 90:12 <b>releases</b> 8:12 24:4 <b>reliable</b> 19:2 <b>re-license</b> 82:12 <b>re-licensed</b> 19:8 <b>re-licensing</b> 3:10 4:15 6:19 15:14 17:8 27:8 60:18, 20 72:8 77:3 78:16 81:11 87:20 <b>re-licensings</b> 60:20 <b>relying</b> 55:13 <b>remain</b> 38:3 93:14 <b>remainder</b> 40:3 <b>remains</b> 58:8 <b>remarks</b> 11:20 88:11 <b>remediating</b> 56:21</p>	<p><b>remediation</b> 28:5 30:11 64:1, 2 65:4 86:3 <b>remember</b> 17:15 83:3, 15 <b>re-mobilized</b> 51:19 53:10 <b>removal</b> 8:20 31:4 55:21 <b>remove</b> 16:6 <b>removed</b> 52:5 55:8, 9 <b>removing</b> 27:21 52:3 <b>render</b> 5:6 <b>rendering</b> 9:10 <b>renewable</b> 14:18 33:8 36:21 78:8 <b>RENEWAL</b> 1:6 37:10 <b>renewed</b> 37:7, 9 <b>reoccurrence</b> 40:18 <b>reopen</b> 77:18 <b>re-openers</b> 77:13 <b>repairing</b> 81:14 <b>report</b> 42:16 44:4 68:13 <b>Reported</b> 1:20 28:12 29:8 <b>reports</b> 24:6 <b>repository</b> 51:17 53:8 <b>represent</b> 40:15 <b>Representatives</b> 78:19, 20 <b>represented</b> 46:15 47:3 <b>representing</b> 39:3 <b>represents</b> 25:12 46:4 47:9 64:16 79:11 <b>Reptile</b> 57:11 <b>reptiles</b> 57:18</p>	<p><b>requesting</b> 89:19 <b>require</b> 30:7 54:20 84:6 86:6 <b>required</b> 4:16 30:9 47:20 50:7 63:8 87:3 91:3 <b>requirement</b> 52:2 61:8 <b>requirements</b> 5:2, 9 10:4 <b>requires</b> 4:18 56:18 <b>requiring</b> 8:20 30:16 <b>research</b> 53:6 61:1 <b>Reservoir</b> 16:4 23:4 34:3, 21 41:4, 17 43:6 49:10 51:16 52:4 53:6 55:8 70:10 74:3, 8, 11 75:10 76:10 77:16 85:2 <b>resident</b> 12:19 17:9 83:2, 14 <b>residents</b> 18:21 19:8 91:10 <b>resiliency</b> 55:5 64:3, 8 66:8 82:4 <b>resist</b> 78:4 <b>resource</b> 13:18 14:21 26:9 56:19, 20 65:3 <b>resources</b> 6:21 43:7, 21 58:10 59:9 60:4 61:3 73:16 83:4, 16 84:18 85:13 <b>respect</b> 9:12 67:17 <b>respond</b> 78:3 <b>response</b> 7:9 10:3 <b>responsibility</b> 28:9 29:4 81:7</p>
--	--	--	--	---

<p><b>responsible</b> 18:20 28:5 30:12 32:20 78:6 84:8, 9 85:19 91:1</p> <p><b>restoration</b> 43:21 68:9 71:18 81:13</p> <p><b>restore</b> 8:21 23:2 50:18 82:2 87:5</p> <p><b>restoring</b> 24:9</p> <p><b>result</b> 4:20 27:15 80:3 88:4</p> <p><b>resulted</b> 44:15</p> <p><b>resulting</b> 23:3, 5 46:11 49:1</p> <p><b>results</b> 46:14 50:2 86:7</p> <p><b>retains</b> 41:21</p> <p><b>return</b> 47:3, 10 48:8</p> <p><b>returned</b> 13:17</p> <p><b>returns</b> 25:14</p> <p><b>re-use</b> 74:12 92:4</p> <p><b>revenue</b> 25:13 26:6 56:17 86:2</p> <p><b>review</b> 9:11, 17 10:9 43:14 44:4 45:8</p> <p><b>reviewing</b> 13:12 49:16</p> <p><b>revised</b> 43:19 49:18</p> <p><b>Rich</b> 57:7</p> <p><b>Richard</b> 57:10</p> <p><b>right</b> 3:16 26:21 59:1, 7, 12 60:9 67:8 75:12 76:3 83:12</p> <p><b>rights</b> 78:15</p> <p><b>risk</b> 54:17 55:4</p> <p><b>River</b> 7:12 9:19, 21 10:1 13:1, 2, 5 16:12, 20 17:14, 18</p>	<p>18:10 20:17 21:16 25:15 26:12 30:6 39:1, 2, 4, 19 40:4, 5, 21 41:2 42:15 43:1 50:20 51:4, 11 52:15 55:11, 12, 17 56:19 57:21 61:6 64:19 68:16 70:4 71:8 72:10, 12 79:20 80:2 83:21 84:1, 19</p> <p><b>river's</b> 22:12 39:13 76:14</p> <p><b>rivers</b> 14:19 15:1 64:15, 16, 17 84:3 85:13</p> <p><b>Road</b> 1:12 38:6 39:6</p> <p><b>robust</b> 70:17</p> <p><b>role</b> 10:18 15:6 79:19</p> <p><b>roof</b> 36:12</p> <p><b>room</b> 4:6 73:14 75:13</p> <p><b>root</b> 81:15, 19 82:9</p> <p><b>roughly</b> 11:15</p> <p><b>Route</b> 18:4</p> <p><b>Run</b> 1:12 33:21 34:12, 16</p> <p><b>running</b> 34:21 46:5</p> <p><b>runoff</b> 14:11 35:19</p> <p>&lt; S &gt;</p> <p><b>Safe</b> 40:6 42:21 87:5</p> <p><b>sailing</b> 83:19</p> <p><b>salint</b> 37:4, 11</p> <p><b>Sassafras</b> 64:18</p> <p><b>Saul</b> 2:5</p> <p><b>Saving</b> 71:17</p> <p><b>saw</b> 35:12</p> <p><b>saying</b> 20:21 32:18 78:3, 5</p>	<p>80:15</p> <p><b>scared</b> 57:13</p> <p><b>scenery</b> 16:8</p> <p><b>schedule</b> 23:1, 18</p> <p><b>Schendelwieser</b> 26:20 27:1, 4, 5 31:9</p> <p><b>school</b> 19:4 53:10</p> <p><b>schools</b> 37:21</p> <p><b>Science</b> 2:19 4:2 23:11 24:12 49:15 93:18</p> <p><b>science-based</b> 21:9</p> <p><b>sciences</b> 85:2</p> <p><b>scientists</b> 36:5 41:13 85:8</p> <p><b>scope</b> 9:11</p> <p><b>scour</b> 8:9, 17 47:18, 20 48:11, 14, 15, 16 54:2 55:4, 6 90:11</p> <p><b>scoured</b> 41:2 49:7 51:18 53:9 90:10</p> <p><b>scouring</b> 40:9, 12, 13 47:12 56:3 80:14 82:6 89:1</p> <p><b>scours</b> 80:7</p> <p><b>se</b> 59:3</p> <p><b>seaboard</b> 21:17 26:12</p> <p><b>seafood</b> 62:18 67:13 70:16</p> <p><b>Seal</b> 95:12</p> <p><b>season</b> 55:20</p> <p><b>seat</b> 12:7</p> <p><b>Second</b> 11:9 23:2 41:16 46:2, 12, 16, 18 47:7, 8 59:15 68:17 73:1</p> <p><b>Section</b> 4:18 25:15 71:19</p> <p><b>sediment</b> 5:19 6:5, 6, 14 7:10,</p>	<p>12 8:8, 11, 21 14:9, 10 15:7 18:15, 17 19:18 27:15, 18 39:14, 20 40:1, 10, 13, 20 41:3, 6, 9, 17, 18 42:1, 2, 4, 6, 19 43:5, 5, 10, 11 44:5, 12, 16, 20 45:3, 5, 7, 14 46:15 48:20 49:2, 7, 21 50:13 51:6, 9, 17 52:4 53:5, 7, 9, 13, 18 54:7, 14, 18 55:4, 6, 7, 21 59:18 61:20 62:1, 7 64:1, 2 71:7 73:12 74:1 75:12 80:2 81:15 84:21 86:16 87:2 88:16, 18 90:7</p> <p><b>sedimentation</b> 71:1 73:21</p> <p><b>sediment-retaini ng</b> 40:15</p> <p><b>sediments</b> 40:13 47:17 69:19 74:4, 12, 16</p> <p><b>see</b> 3:21 12:1 13:16 16:15 21:18 22:10 28:10 29:6 32:8, 11 38:3 41:18 42:6 60:6 63:12 67:4, 6 73:18</p> <p><b>seeing</b> 35:19</p> <p><b>seen</b> 63:19 89:7</p> <p><b>Seigel</b> 57:8, 9, 10</p> <p><b>selected</b> 44:20</p> <p><b>Senate</b> 78:20</p> <p><b>sense</b> 85:14</p> <p><b>sent</b> 94:2</p> <p><b>separate</b> 18:15</p>	<p><b>September</b> 36:9 45:21 46:1, 19 68:14</p> <p><b>septic</b> 75:6, 7</p> <p><b>series</b> 42:20</p> <p><b>serious</b> 18:17 50:5</p> <p><b>seriously</b> 78:13</p> <p><b>served</b> 13:1</p> <p><b>Service</b> 58:10 74:10</p> <p><b>services</b> 44:1</p> <p><b>set</b> 88:8</p> <p><b>sets</b> 49:13</p> <p><b>settled</b> 20:8</p> <p><b>settlement</b> 6:8 7:18 25:2</p> <p><b>severe</b> 36:7</p> <p><b>sewage</b> 85:1</p> <p><b>Shad</b> 39:16 87:5</p> <p><b>share</b> 56:12</p> <p><b>shared</b> 89:17 92:16</p> <p><b>sharing</b> 14:16 92:18</p> <p><b>sheet</b> 10:20 12:11 15:8</p> <p><b>sheets</b> 10:20 12:3, 4</p> <p><b>shipping</b> 71:2, 4, 8</p> <p><b>Shirley</b> 37:16</p> <p><b>shock</b> 69:19</p> <p><b>shoot</b> 32:4, 8</p> <p><b>Shore</b> 64:15, 16, 17</p> <p><b>shoreline</b> 6:6 16:4, 12 71:9</p> <p><b>shorelines</b> 16:7</p> <p><b>shores</b> 14:12</p> <p><b>short</b> 52:21 55:17</p> <p><b>shortcomings</b> 52:8 67:18</p> <p><b>shouldn't</b> 75:8</p> <p><b>show</b> 20:12 26:17 30:2 31:18 80:13 91:7</p>
--	---	--	--	--

<p><b>showed</b> 25:12 27:15</p> <p><b>showing</b> 25:8 91:11</p> <p><b>shown</b> 54:12 58:18</p> <p><b>shows</b> 36:19 53:6 79:1 83:18 85:18</p> <p><b>shrinking</b> 75:8</p> <p><b>shut</b> 35:7</p> <p><b>shuts</b> 24:6</p> <p><b>shutters</b> 36:13</p> <p><b>shy</b> 73:9 77:21</p> <p><b>sight</b> 71:3</p> <p><b>signed</b> 10:19 93:8</p> <p><b>significance</b> 87:9, 10</p> <p><b>significant</b> 8:20 26:2 45:17 55:14 56:1 66:6 79:20 80:12 84:18</p> <p><b>significantly</b> 66:4</p> <p><b>sign-in</b> 12:3, 4</p> <p><b>sign-up</b> 12:10</p> <p><b>similar</b> 47:10</p> <p><b>similarly</b> 46:6</p> <p><b>simplistic</b> 51:15</p> <p><b>simply</b> 47:11 83:5, 17</p> <p><b>simulates</b> 47:16</p> <p><b>single</b> 41:7 54:12 62:2 72:8, 13</p> <p><b>sites</b> 22:17</p> <p><b>situation</b> 23:3 30:2 38:10 81:21</p> <p><b>Six</b> 9:1</p> <p><b>size</b> 42:9</p> <p><b>slice</b> 68:20 72:14</p> <p><b>slides</b> 20:12, 14</p> <p><b>slightly</b> 39:10</p> <p><b>small</b> 14:12 15:17 59:20</p> <p><b>smother</b> 54:7</p>	<p><b>smothering</b> 69:18</p> <p><b>snakes</b> 57:13</p> <p><b>society</b> 15:3 35:14</p> <p><b>solar</b> 34:5, 6</p> <p><b>sole</b> 22:5 70:15</p> <p><b>solely</b> 62:3</p> <p><b>solicit</b> 10:16</p> <p><b>soliciting</b> 7:4</p> <p><b>solution</b> 8:11 21:9 23:14 24:18 70:14, 15 81:8, 19 86:5 91:11</p> <p><b>solutions</b> 24:19 33:1</p> <p><b>solves</b> 34:21</p> <p><b>somewhat</b> 40:9</p> <p><b>soon</b> 31:6 37:7</p> <p><b>sooner</b> 7:21</p> <p><b>sophisticated</b> 62:13</p> <p><b>sorry</b> 67:20 72:17</p> <p><b>sort</b> 26:17 65:9 66:8 71:17</p> <p><b>sounds</b> 75:3</p> <p><b>source</b> 17:21 22:5, 6 37:4 72:6, 9, 13, 20 73:3 80:8</p> <p><b>sources</b> 6:15 21:15 33:16 36:21 85:1</p> <p><b>south</b> 40:7 50:10, 11</p> <p><b>span</b> 43:20 46:20</p> <p><b>spanned</b> 47:1</p> <p><b>spans</b> 46:4</p> <p><b>spawning</b> 80:20</p> <p><b>speak</b> 11:17 53:3 93:8</p> <p><b>speaker</b> 11:19 31:18</p> <p><b>speakers</b> 22:1 27:6 88:11</p> <p><b>speaking</b> 12:13 59:2</p>	<p><b>species</b> 5:17 8:2 9:2 24:2 39:16 42:11 51:1 58:5 60:1 63:4 87:6</p> <p><b>specific</b> 6:2 8:3 22:20 52:3 87:4</p> <p><b>specifically</b> 3:11 8:17</p> <p><b>spend</b> 58:15 71:3</p> <p><b>spending</b> 75:7 76:18</p> <p><b>spends</b> 17:17</p> <p><b>spent</b> 75:21 76:8, 9</p> <p><b>spoiled</b> 38:9</p> <p><b>spoke</b> 60:15 79:16 82:19</p> <p><b>spoken</b> 77:14 92:1</p> <p><b>spot</b> 15:19</p> <p><b>spring</b> 18:11</p> <p><b>Springs</b> 36:10</p> <p><b>SS</b> 95:2</p> <p><b>stage</b> 44:12</p> <p><b>stake</b> 79:1 89:18</p> <p><b>stakeholder</b> 92:20</p> <p><b>Standard</b> 88:13</p> <p><b>standards</b> 5:1, 9, 11, 21 6:17 9:15, 19 10:6 21:20 52:13 81:5, 7 82:13 88:15 90:19</p> <p><b>standpoint</b> 67:13</p> <p><b>star</b> 16:3</p> <p><b>start</b> 12:3 20:21 33:18 34:2 68:6 83:11 87:18</p> <p><b>started</b> 3:3</p> <p><b>starting</b> 33:20 68:15</p> <p><b>State</b> 4:16, 21 5:5 12:8 13:4</p>	<p>18:6 32:18 40:8, 12 57:21 58:5, 11 61:13, 14, 18 63:13 65:20 69:1 71:4, 6 73:8 75:4 79:3, 13 81:3, 4 84:5, 17 92:12 95:1, 4</p> <p><b>State's</b> 3:9 5:1 9:15 10:5 26:16 52:12 53:14 56:7 58:5</p> <p><b>stated</b> 70:13</p> <p><b>state-endangered</b> 57:18</p> <p><b>statement</b> 4:10 11:6, 8 12:5 69:6 93:10</p> <p><b>statements</b> 11:4, 17 12:1, 3</p> <p><b>States</b> 13:7 18:10 21:5 31:19 33:1 58:1 78:15 85:15 91:13</p> <p><b>status</b> 50:2</p> <p><b>stay</b> 57:15</p> <p><b>steam</b> 31:21</p> <p><b>stem</b> 88:19</p> <p><b>step</b> 65:4 78:6, 10</p> <p><b>Stephanie</b> 15:10, 13</p> <p><b>stewards</b> 30:6</p> <p><b>stewardship</b> 19:10</p> <p><b>stipulation</b> 81:11</p> <p><b>stop</b> 64:4 81:15</p> <p><b>stopped</b> 18:14</p> <p><b>storable</b> 33:8</p> <p><b>storage</b> 34:4 37:2 41:17 54:18 61:21</p> <p><b>store</b> 34:7</p> <p><b>stored</b> 53:19</p>	<p><b>store-induced</b> 53:11</p> <p><b>stories</b> 16:20</p> <p><b>storm</b> 36:19 40:19 45:14, 17, 20 46:9, 15, 15, 18, 20 47:2, 10, 13 48:1, 5, 11 53:15 54:3 68:14, 18 71:12 72:3 73:16, 19 76:5 80:6</p> <p><b>storm-based</b> 40:9 48:16</p> <p><b>storm-induced</b> 51:19</p> <p><b>storms</b> 36:7 45:9 64:5</p> <p><b>stormwater</b> 80:6</p> <p><b>strategies</b> 43:10, 11</p> <p><b>stream</b> 25:15</p> <p><b>streams</b> 84:4 85:13</p> <p><b>Street</b> 2:6</p> <p><b>stressed</b> 89:6</p> <p><b>stringent</b> 36:12</p> <p><b>strip</b> 35:18</p> <p><b>striped</b> 87:6</p> <p><b>strong</b> 63:12</p> <p><b>stronger</b> 64:8</p> <p><b>structure</b> 61:17 70:6 85:1</p> <p><b>structures</b> 13:20</p> <p><b>stuck</b> 70:11</p> <p><b>students</b> 57:16, 16</p> <p><b>studied</b> 63:5</p> <p><b>studies</b> 27:13 30:13, 14 49:13, 16 54:12 61:1 63:15 80:13 88:1, 21 90:4, 5 92:17</p> <p><b>study</b> 25:21 26:4 27:15 49:21 50:2, 3 63:8 74:14 85:17 86:1, 7</p>
--	--	---	---	---

<p>91:6  <b>stuff</b> 70:1  <b>subject</b> 13:1  32:1 73:4  <b>submerged</b>  55:19  <b>submitted</b>  22:19 93:15  <b>submitting</b>  64:10  <b>subsequently</b>  7:7  <b>subsidized</b> 58:15  <b>substantial</b>  40:16  <b>substantially</b>  48:11  <b>Subtitle</b> 10:12,  13  <b>success</b> 7:21  <b>successively</b>  44:7  <b>sudden</b> 65:11  <b>Susquehanna</b>  54:1  <b>sufficient</b> 52:7  82:14 86:2  <b>suggest</b> 15:7  <b>suggested</b> 8:3  44:14  <b>suggesting</b> 75:11  <b>Suite</b> 2:8 43:21  55:2 93:19  <b>summary</b> 36:20  44:4  <b>summer</b> 89:5  <b>sunny</b> 34:6  <b>sunsets</b> 16:3  <b>supervision</b> 95:5  <b>supplement</b> 88:9  <b>supply</b> 34:1  <b>support</b> 9:1, 8  15:14 16:20  17:8 85:16  <b>supported</b> 43:16  <b>supporters</b>  79:12, 18  <b>sure</b> 20:13  23:6 67:3 82:4</p>	<p>88:3 90:3  91:14  <b>surge</b> 41:6  <b>surprised</b> 30:17  <b>surrounding</b>  17:10 19:6  <b>Survey</b> 68:12  <b>suspended</b> 7:7  <b>Susquehanna</b>  7:11 9:19, 21  10:1 12:21  13:5 16:20  18:10 20:16  39:1, 2, 4, 13, 19  40:4, 5, 21 41:2  42:4, 15, 20  43:1 50:14, 20,  21 51:4, 10  52:15 55:11, 12,  17 56:19 57:21  59:8 67:16  71:8 72:10, 12  79:20 80:2  83:21 84:19  <b>Susquehanna's</b>  42:1  <b>sustainability</b>  65:17  <b>swimmable</b> 53:2  <b>symmetrically</b>  46:4  <b>symptom</b> 24:3  <b>system</b> 22:3  34:4 43:12, 21  50:17, 19 51:5    &lt; T &gt;  <b>table</b> 3:21 4:9  12:7 24:7  25:12  <b>take</b> 4:4 12:1  38:9 49:15  60:5 65:4  66:19 68:3  89:5  <b>taken</b> 59:17  62:5, 10, 21  66:2  <b>takes</b> 66:16</p>	<p><b>talk</b> 64:21 74:5  79:9  <b>talked</b> 24:14  90:5  <b>talking</b> 27:18  62:15 70:18  73:7  <b>talks</b> 24:3  <b>tanks</b> 75:6, 7  <b>target</b> 75:12  <b>tax</b> 14:2 28:21  29:18 35:10  <b>taxes</b> 35:9  <b>taxpayers</b> 75:21  <b>Team</b> 89:9  <b>technical</b> 37:18  38:12 39:10  <b>technology</b>  13:11 23:11, 14  33:17 66:2, 8  <b>Ted</b> 38:14 39:1  <b>term</b> 8:15 54:3  62:11  <b>terms</b> 24:10  33:12 73:21  <b>terrific</b> 73:17  <b>testimony</b> 4:10  11:17 39:10  52:9 59:5  64:20 65:12  93:13  <b>thank</b> 3:8, 13  12:12 15:9, 10  17:2 19:10, 11  20:8, 10 26:19  31:8, 9, 11, 15,  16 37:14, 15  38:12, 13, 21  39:8 52:15, 16,  17 53:2 57:6, 7,  9 60:9, 10  64:11, 12 66:13,  20 79:4, 6, 8  82:16, 17 87:14  93:5, 7 94:4  <b>thanking</b> 87:19  <b>Thanks</b> 66:12  <b>that's</b> 20:2  23:3 24:7, 18  28:3, 7, 21</p>	<p>29:18 30:14  33:6, 7, 8, 12, 15  34:17 37:4  57:14 58:3  59:14 62:20  63:5, 9 65:20  66:10 67:18  71:1, 5 72:14  73:12 77:6, 8  79:20 80:14  82:15 83:10  <b>themselves</b> 65:6  <b>There's</b> 14:9  18:15 20:13  22:3 24:11, 12  26:10, 15, 16  28:18 29:15  33:4 35:4, 15  56:9 58:3  59:20 61:1  74:3, 6 77:15  78:6  <b>they're</b> 23:7  27:21 29:9  30:13, 15 32:16,  17, 20 34:16, 18  36:4 72:18  78:5  <b>thing</b> 30:19  34:17 76:4  <b>things</b> 20:8  22:17 23:6  26:15, 18 37:8  57:12 59:2  77:1, 13, 19  <b>think</b> 11:18  19:21 21:1  25:8 26:14  27:13 28:5  31:4, 6 32:19  53:15 59:4  62:14 63:13, 16  65:7 66:10, 18  69:10 72:17, 18  73:2, 8 76:11,  17 77:10, 12, 17  81:9 83:12  91:16 92:11  93:1  <b>thinking</b> 70:9</p>	<p><b>third</b> 6:15 23:5  65:20  <b>Thomas</b> 1:12  <b>Thompson</b>  19:12, 13, 14  37:16, 17  <b>thought</b> 20:4  30:18  <b>thousands</b> 30:10  <b>threat</b> 40:17  41:11, 16  <b>threatened</b> 5:17  <b>threats</b> 40:16  58:20 59:4, 6  <b>three</b> 6:11  8:14 30:1 33:1,  19 43:10 55:4  <b>threshold</b> 56:4  <b>tidal</b> 9:20  <b>tidals</b> 22:16  <b>Tide</b> 71:17  <b>tie</b> 76:12, 13  <b>tied</b> 76:12  <b>time</b> 3:9 11:16  17:17 23:12  24:5 27:9  31:10 33:20  46:4 52:7, 15  57:6 66:4, 9, 19  71:20 72:2, 2,  21 77:21 78:6  82:16 90:13  91:21 93:5  <b>times</b> 6:10  33:19 61:19  <b>timing</b> 88:18  <b>tip</b> 19:5  <b>Title</b> 10:12, 13  <b>titled</b> 71:20  <b>TMDL</b> 21:21  49:6 53:14, 17  90:20  <b>today</b> 3:20  10:7 20:17  22:10 24:15  35:14 57:6  59:16 61:10  79:9, 16 81:9  85:2 89:8</p>
---	---	--	---	---

91:20 92:2, 9, 10, 13  
**toll-free** 18:3  
**Tom** 71:16  
**tonight** 3:14, 21 10:18 11:6, 17 12:9 15:14 22:19 24:12 30:18 37:18 39:3, 10 52:16  
**Tonight's** 10:11, 15 94:5  
**tons** 16:6 27:20 39:20, 21 41:6 42:5 51:7 52:4, 5 55:7, 9  
**tools** 91:20  
**top** 32:13  
**total** 33:7 48:19 58:4, 5 84:2  
**totally** 28:5 31:4  
**tough** 77:21  
**tour** 31:1  
**toured** 13:14 70:7  
**tourism** 13:21 35:10, 13  
**town** 36:14 58:12  
**Towson** 57:10  
**toxic** 28:12 29:7  
**trail** 32:11  
**trailed** 15:17  
**trails** 17:18  
**transcribed** 11:10 95:5  
**transcript** 11:10, 13, 14 95:4, 6  
**transmitting** 6:12  
**transport** 8:1 43:5 85:8  
**transported** 30:8 39:20 40:20

**transports** 84:1  
**trap** 8:1  
**trapped** 40:3, 12 41:3 51:5, 9 53:12 84:21  
**trapping** 7:13 8:12, 21 27:19 40:8, 10, 11 42:2 49:1 71:11 75:2, 11 85:4  
**traps** 59:10, 11  
**trash** 16:7 18:8, 9, 14, 16  
**traveled** 13:3  
**treasure** 87:10  
**treatment** 28:19 29:15  
**tremendous** 13:18  
**tremendously** 13:16  
**triangle** 38:12  
**tributaries** 50:10, 12, 16 54:1  
**trillions** 62:17  
**tropical** 40:19 45:17, 20 46:9, 15, 18, 20 47:10, 21 48:11 68:14  
**trouble** 83:7  
**true** 49:12 61:21 63:4 92:8, 10 95:6  
**trust** 68:3 69:16  
**try** 32:4 38:14 82:2 88:11  
**trying** 20:1 76:1, 7, 19 77:1, 6 89:10  
**Tuesday** 1:14  
**turbine** 31:21 32:1 33:17 34:18  
**turbines** 33:17  
**turn** 36:6 44:16 50:18  
**Turning** 71:17

**Turtle** 57:19, 20 58:1 59:2 60:6, 7  
**turtle's** 59:7  
**turtles** 57:13 59:11, 21  
**twice** 82:19  
**two** 5:13 7:14 8:10 20:3 25:13 33:19 40:15 42:7 43:9 45:10 59:6 60:8 62:9 77:5  
**type** 24:13 38:9  
**types** 62:19 73:5  
**typewritten** 95:6  
**typical** 45:6  
 < U >  
**U.S** 6:8 18:4 58:10  
**Uh-huh** 15:20 16:9 31:11 32:6  
**unable** 59:13  
**unaffiliated** 6:14  
**undeniable** 75:19  
**under-estimated** 48:16  
**under-estimating** 45:6  
**under-graduate** 57:16  
**underlying** 43:16  
**under-representa**  
**tion** 44:15  
**undersigned** 95:3  
**understand** 17:5 59:17 61:5 73:5 80:8  
**undertaken** 8:4  
**undertaking** 74:10, 19

**unfair** 14:14 31:5  
**unfortunate** 30:3  
**unfortunately** 54:16  
**unique** 51:1  
**United** 13:6 21:5 58:1  
**units** 5:15 34:18  
**University** 31:20 49:14 57:10 85:7 90:4  
**unjust** 28:6  
**unknown** 59:20  
**unnatural** 70:3  
**unregulated** 59:7  
**upper** 7:12 27:16 30:8 43:1, 8, 12 64:17 70:19 71:1 73:20 80:12  
**upramping** 7:15 9:3  
**upstream** 6:15 8:2, 19 18:17, 19 32:17 37:11 49:2 54:11 55:2 62:7 64:1 66:7 77:8 80:3 82:15 86:10, 16 91:13  
**urge** 79:18 82:9 84:6  
**use** 3:14 43:4 61:6, 7 65:3  
**USEPA** 49:5  
**uses** 5:21 62:19  
**USGS** 45:5, 18 46:14 48:14 68:12  
**utilized** 18:1  
 < V >  
**vain** 76:6  
**value** 74:16

**valued** 13:11 83:3, 15  
**variety** 25:9  
**various** 19:3  
**varying** 25:11  
**vegetation** 24:1 55:19 87:7  
**viability** 59:21  
**viable** 21:14 58:8, 17, 19 71:5  
**vigor** 79:4  
**violate** 81:5  
**Virginia** 31:20 35:17  
**Virginians** 36:4  
**visit** 32:4, 7 38:2  
**visited** 13:9  
**visitors** 19:5 35:11  
**vital** 19:1  
**vitality** 73:12 74:15  
**volitional** 7:21  
**Voters** 79:11, 12, 17  
 < W >  
**walking** 32:11  
**want** 3:4, 8, 13 4:4 11:4 20:1 21:15, 18 38:1, 3 60:17 63:12 65:18 66:7, 14 67:15 68:6 72:14 76:21 87:18 90:3  
**wanted** 20:5 25:6, 17, 18 60:18 66:12  
**wants** 4:9  
**Washington** 13:4 93:19  
**wasn't** 27:20 69:15, 20  
**waste** 49:6  
**Wastewater** 28:17, 19 29:12,

<p>15  <b>watching</b> 19:4  <b>Water</b> 2:19            3:12, 12 4:1, 16,            17, 18 5:1, 4, 7,            9, 11, 21 6:12,            17 7:2, 4, 8, 10,            17, 19 8:14 9:5,            9, 12, 15, 18            10:6, 13, 17            16:7 24:1, 10            34:10, 10 36:2            37:5 41:2, 7            43:21 51:21            52:12, 20 53:14,            16 54:19 56:7,            10, 11 60:13            61:12, 14, 17            63:12 65:16            67:16 68:7, 21            73:1, 10 76:20            77:3 78:15            79:3, 10, 13, 15            81:2, 5 82:7, 13            84:2, 10, 15, 18            86:19 88:3, 12,            14 89:2, 3, 5, 9            90:16, 17, 19, 19            91:4 92:12            93:18  <b>water-related</b>            8:4  <b>waters</b> 4:20            5:19 10:9, 10            21:6 40:19            41:1 53:1 61:6            77:9  <b>watershed</b> 22:3            42:16, 20 43:3            47:16, 17 50:14            55:12 68:18            75:5  <b>watershed-wide</b>            43:9  <b>Waterways</b> 1:2            2:15 3:6, 18            15:18 93:17  <b>way</b> 19:16            38:3 60:2 62:1            65:19 70:1</p>	<p>73:9 77:8, 18            89:18 92:11            95:10  <b>ways</b> 14:16            21:14 25:11            34:9 45:10            58:7  <b>we'd</b> 66:5  <b>we're</b> 11:21            22:4 24:8            27:18 30:18            61:2, 10 62:4,            15, 15, 20 63:1            70:11, 18 71:11,            12 75:10 76:14            77:6 78:5, 12            91:16  <b>We've</b> 21:8            57:4 58:6, 18,            21 59:13, 16, 18            71:11 76:8            89:7  <b>weak</b> 67:21            69:7  <b>weather</b> 22:18  <b>website</b> 73:17,            18 93:16  <b>Wednesday</b>            83:19  <b>weeks</b> 36:17            92:19  <b>welcome</b> 3:4, 8            12:7, 11 31:13            38:20 39:9            52:18 82:21            87:15  <b>well</b> 7:20            30:14 36:3, 4,            12, 14, 18 37:13            39:7 52:7            58:12 60:13            67:12 68:20            69:20, 21 71:15            77:19 86:17            92:9 93:16            94:3  <b>well-paying</b>            13:21  <b>went</b> 33:19  <b>weren't</b> 70:9</p>	<p><b>west</b> 5:16            31:20 35:17            36:4 43:14, 20            45:9  <b>Wetlands</b> 1:2            2:15 3:6, 18            24:19 93:17  <b>what's</b> 72:2            73:20 75:20            78:1 79:1 82:8            89:11  <b>whatnot</b> 32:5  <b>whatsoever</b> 73:9  <b>Wide</b> 64:18  <b>widely</b> 13:3  <b>wife's</b> 19:15  <b>wild</b> 7:16  <b>wildlife</b> 16:3            57:11, 17 58:10  <b>Williamsport</b>            13:3  <b>Wilmington</b>            12:20 13:9  <b>wind</b> 34:5  <b>window</b> 45:1            46:6, 7  <b>windows</b> 36:13  <b>windy</b> 34:5  <b>winter</b> 58:16  <b>win-win</b> 91:8  <b>wisdom</b> 79:4  <b>wisely</b> 34:3  <b>wish</b> 3:4  <b>withdrawals</b> 9:6  <b>witness</b> 16:2            95:12  <b>wood</b> 16:12  <b>work</b> 15:13            20:17 21:9, 11,            12, 15 26:18            57:12 58:18, 21            64:17 65:13            82:3  <b>worked</b> 19:15            36:15, 16 38:5            58:13 85:12  <b>working</b> 12:16            21:13, 13 24:7            31:2 52:21</p>	<p>57:17 58:6            80:10  <b>world</b> 21:5, 12,            13 22:16 32:8  <b>worldwide</b>            87:10  <b>worth</b> 10:7            40:20 41:6            62:11  <b>wouldn't</b> 19:21            65:7  <b>wreak</b> 18:14  <b>Wrightsville</b>            39:6  <b>writing</b> 93:15  <b>Written</b> 11:7            23:17 57:5            64:10 67:19            68:1 75:15            88:8 93:6  <b>WSM</b> 47:16            48:1    <b>&lt; Y &gt;</b>  <b>Yacht</b> 83:19  <b>yeah</b> 65:21            67:3 83:10  <b>year</b> 5:5 6:10            14:1 20:3 25:5            29:2, 20 35:11            39:20, 21 54:3            62:6 70:18            77:4  <b>years</b> 12:19, 21            13:10 15:16            16:1, 10, 17            20:4 23:9 27:7            30:20 32:3            33:7 38:4, 8            40:20 41:2, 5, 9            46:20 47:2            48:4 52:13            56:16 57:15            60:18 68:11            70:5, 9 74:21            75:4 77:4, 19            84:14 87:21            91:15, 16 92:10  <b>yield</b> 55:14</p>	<p><b>York</b> 14:11            19:18 28:4            29:3 32:18            33:2 40:6, 21            50:10, 11 65:20            81:18 86:21            91:2  <b>You'll</b> 70:19            81:20, 21  <b>you're</b> 12:7            39:9 78:10  <b>you've</b> 70:7            88:8  <b>young</b> 38:5    <b>&lt; Z &gt;</b>  <b>zones</b> 42:10</p>
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