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STATE OF NEW JERSEY  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
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IN RE: :  
Clean Water Council :  
-----x  
  
Location: Department of Environmental Protection  
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Date: Thursday, October 19, 2017  
Commencing At: 1:10 p.m.  
  
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1 HELD BEFORE:

2

3 JAMES F. COSGROVE, JR., P.E., NJCWC Chair

4 DAVID GLASS, NJ DEP Deputy Commissioner

5 BRITTANY MUSOLINO

6 NATHANIEL SAJDAK

7

8 COUNCIL MEMBERS:

9

10 STANLEY V. CACH, PE, PP, BCEE, D.WRE

11 JESSICA SANCHEZ, PHD, (1st Vice Chair)

12 ANTHONY V. MCCracken, SR., AICP/PP

13 MARIA G. CONNOLLY, PP/AICP

14 DANIEL J. VAN ABS, PHD, PP/AICP

15 GEORGE BAKUN, PE, N4

16 ASHLEY KERR

17 RUSSELL J. FURNARI

18 SANDRA HOWLAND

19 JENNIFER M. COFFEY

20 PEGGY GALLOS

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22

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1                   MR. COSGROVE: Welcome everyone to  
2 the 2017 Annual Clean Water Council hearing. I'm  
3 Jim Cosgrove. I'm chair of the Council. I  
4 suspect we're going to have some more people  
5 coming in as we get moving here today, but I  
6 didn't want to wait any longer to start, so what  
7 I'd like to do first is just quickly ask the  
8 other council members to introduce themselves so  
9 you have a sense of who we are on the council and  
10 who we represent.

11                   MR. MCCRACKEN: Tony McCracken.  
12 I've been on the council a long time, Assistant  
13 Planning Director for Somerset County.

14                   MS. SANCHEZ: Jessica Sanchez. I  
15 represent the Delaware River Basin Commission.

16                   MS. CONNOLLY: Maria Connolly, and  
17 I'm a planner. I'm representing the Department  
18 of Community Affairs.

19                   MR. VAN ABS: Dan Van Abs with  
20 Rutgers University, public member of the council.

21                   MR. BAKUN: George Bakun with  
22 Phillips Sixth Company, representing New Jersey  
23 Business Administration Association.

24                   MS. KERR: Ashley Kerr. I represent  
25 New Jersey Farm Bureau.

1 MR. FURNARI: Russ Furnari, PATG,  
2 representing State Chamber.

3 MS. HOWLAND: Sandy Howland  
4 representing the New Jersey Department of  
5 Agriculture.

6 MS. COFFEY: Jennifer Coffey with  
7 ANJEC, but also advisory member from the Water  
8 Supply Advisory Panel.

9 MR. CACH: Stan Cach, New Jersey  
10 Department of Environmental Protection.

11 MR. COSGROVE: Thank you. So this  
12 is the way we have the day, or the afternoon, set  
13 up here. Dave Glass is here to give the keynote  
14 speech which will be in just a couple of minutes.  
15 Then we follow that with a talk on examples of  
16 some non-point source stormwater treatment  
17 projects that have worked well in New Jersey  
18 followed by a talk on money. How do we find  
19 money to do some of the projects that we're  
20 talking about today, and then after that, we will  
21 move on to the public testimony.

22 So if you are interested in  
23 testifying, you should have indicated so when you  
24 checked in. If you haven't done that, please  
25 make sure you do that some time between now and

1 about 2:30 and we'll go, based on the crowd, I  
2 don't think we'll be here until four o'clock, but  
3 we'll probably start taking testimony around  
4 2:30. There's the list of the Clean Water  
5 Council members in case you didn't hear  
6 everybody, and I suspect some of these people  
7 will be coming in.

8                   I wanted to just tee this off here.  
9 Just this week, the New Jersey DEP issued the,  
10 quote, 303(d) list, the 2014 New Jersey Water  
11 Quality Assessment report, and it actually was a  
12 great introduction to what we're talking about  
13 here. First of all, one of the things I found  
14 interesting is, of the assessed waters in New  
15 Jersey, unfortunately, most of them are showing  
16 up as being impaired and that may seem a little  
17 worse than it actually is because it only takes  
18 one parameter to cause a stream or a stream  
19 segment to be listed as being impaired, but what  
20 are the causes of these use impairments?

21                   What you see in the graph there is  
22 this, again, is out of the 303(d) list report,  
23 pathogens and phosphorus are two big issues that  
24 are impairing waters. Where are pathogens and  
25 phosphorus coming from? Well, certainly

1 pathogens are mostly coming from non-point  
2 sources. Phosphorus is coming from both point  
3 and non-point sources, but certainly a great  
4 contribution from non-point sources. What are  
5 the solutions?

6 Well, historically, we've used TMDLs  
7 to figure out how much we have to ratchet down  
8 point and non-point sources. We also now DEP is  
9 using what they call sub list 5R in the  
10 assessment report which is watersheds better  
11 suitable for restorations to solve non-point  
12 sources, so you save that for non-point source  
13 impaired watersheds only, but the real issue here  
14 comes down, in my opinion, to these two bars.

15 This is an example. This is the  
16 Raritan Nutrient TMDL Study, and DEP figured out  
17 that we had to get the load in the Raritan from  
18 about 12,000 pounds of phosphorus a day down to  
19 less than 4,000 pounds a day. The different  
20 color bars are the different sources of the  
21 nutrient source. The purple color is point  
22 sources. Well, how do we deal with point  
23 sources?

24 The way we deal with point sources  
25 is we ratchet down effluent limits at the waste

1 water treatment plants. So for example, that  
2 purple section on the left there is the existing  
3 condition. DEP determined that purple bar, that  
4 comes almost up to 4,000 kilograms per day, had  
5 to get down to the little tiny bar on the right.  
6 Well, they figured out what that needed to be at  
7 each waste water treatment plant and there was a  
8 mechanism.

9               We could put in a permit with these  
10 new effluent limits had to be, in this case, for  
11 phosphorus, but the red bar, which is stormwater  
12 run off from urban areas and the yellow bar which  
13 is stormwater run off from agricultural areas, we  
14 have prescribed reductions within the TMDL for  
15 those sources, but we haven't really made much  
16 progress in terms of how to reduce that non-point  
17 source load.

18               That is the focus of today's  
19 discussion. How do we get at the red and the  
20 yellow on that graph. What do we do to figure  
21 out how to ratchet those loads down such that you  
22 meet the loads on the right and that's quite a  
23 challenge. So with that, I'll turn this over to  
24 David Glass, NJ DEP Deputy Commissioner and leave  
25 you with him.



1                   MR. GLASS: All right. Thank you,  
2 Jim. Good afternoon. Happy to be here on behalf  
3 of Commissioner Martin. He sends his regrets  
4 that he could not make it today. I thank you all  
5 for being here today, especially the members of  
6 council. The New Jersey Clean Water Council has  
7 been an important source of information regarding  
8 water quality and policy to the Commissioner and  
9 to DEP's team.

10                   If the Commissioner were here, he  
11 would say there are many councils, advisory  
12 boards, commissions that report to DEP, but there  
13 are few that he really focuses his time on. The  
14 Clean Water Council is one of those. Thank you  
15 all to the council members for your work. And on  
16 behalf of the Commissioner, I appreciate your  
17 willingness to serve.

18                   Sometimes it's a thankless task of  
19 all the amount of time and effort that you put  
20 into this, but it really does help us here at DEP  
21 and our entire team. Over the past eight years,  
22 DEP has had many significant accomplishments in  
23 the water sector. Many of which you have played  
24 a role in. Since 2010, more than 34 million has  
25 been spent on implementing on 62 non-point source

1 grants to mitigate impacts to water quality. Our  
2 beaches have been opened 99.99 percent of the  
3 time. We're still trying for that other 10th of  
4 a percent.

5                   We've been working to address the  
6 presence of emergent contaminants such as PFOS  
7 and PFOA. We've made new recommendations for a  
8 maximum contaminant level for 123 TCP and PFNA.  
9 We consistently monitor over 1300 public water  
10 systems for lead, copper and other contaminants  
11 serving about 8 million people. Over the past 40  
12 years, we have focused on point source solution  
13 and have done a great job of addressing that  
14 problem.

15                   Now our focus needs to be on  
16 non-point source stormwater pollution which  
17 brings me here today. I would like to review  
18 four major strategies by which New Jersey  
19 continues to address non-point source pollution.  
20 MS4 permits, combined sewer overflows, ocean  
21 water quality projects and Barnegat Bay. As you  
22 all know, DEP has been working on MS4 permits.

23                   These permits help to reduce  
24 flooding, to improve operations and maintenance  
25 of stormwater facilities and improve water

1 quality through proper stormwater management,  
2 support of operations of maintenance of  
3 stormwater facilities through inventory and  
4 mapping. Provide municipalities with a better  
5 understanding of their stormwater systems,  
6 improve education and training opportunities at  
7 the local level, increase public outreach and  
8 transparency of stormwater provisions and  
9 eliminate additional permits needed for specific  
10 municipal operations.

11               DEP is very sensitive to the issue  
12 of unfunded mandates. That's why we are  
13 providing assistance to towns and cities related  
14 to inventory, mapping, training and guidance.  
15 Within that, we have developed a tool kit which  
16 includes on-line training resources and free wide  
17 design review courses for municipal engineers,  
18 recently developed maintenance guidance available  
19 on our website and free inventory and mapping  
20 application is being developed as well.

21               We are just about to issue the final  
22 MS4 Tier A and Tier B municipal stormwater  
23 NJPDES, general permits. These will help us  
24 develop water quality enhancements across the  
25 state. I'm also proud to say that this

1 administration is addressing the storm problems  
2 of combined sewer overflows.

3           In fact, this is the first  
4 administration to do so. March 12, 2015, DEP  
5 issued 25 final permits to address 210 CSOs still  
6 existing in the state. Goals of the new permit  
7 include improved water quality by reducing and  
8 ultimately eliminating all 210 CSO outfalls,  
9 reducing flooding, providing opportunities for  
10 green infrastructure and enhance asset management  
11 and operations and maintenance.

12           New Jersey is proactively addressing  
13 CSOs through permits, unlike other states that  
14 are doing so, as a requirement of federal  
15 enforcement action. Since 2010, more than 230  
16 million in low cost loans have been provided by  
17 the New Jersey Environmental Infrastructure  
18 Finance Program for stormwater and CSO  
19 improvements throughout the state.

20           80 million of this was principal  
21 forgiveness, which many of you know is grant like  
22 money and we are on track to eliminate all of New  
23 Jersey's CSOs. It's going to take time to  
24 complete this effort, but we are on a path that  
25 will get us there. Over the past eight years, we

1 have also worked hard to address ocean water  
2 quality issues. We have not only continued to  
3 work the work started by past administrations,  
4 but have taken it to another level. We have  
5 worked with communities to tackle areas, specific  
6 problems with focused projects, to help us get  
7 the job done.

8           I want to give you a few examples.  
9 In Spring Lake, Wreck Pond has been a priority  
10 for this administration since day one. We made a  
11 commitment to address it. As far back as 2001,  
12 as little as a 10th of an inch of rain fall would  
13 cause beach closures. Superstorm Sandy provided  
14 us with an additional set of challenges and  
15 showed us the vulnerabilities of our coastal  
16 lakes.

17           To address Wreck Pond issues, we  
18 worked with Monmouth County in the towns of  
19 Spring Lake and Sea Girt to determine the major  
20 cause of contamination. We found that sewer and  
21 stormwater systems are interconnected causing raw  
22 sewage to flow into Wreck Pond whenever it rains.  
23 Once this issue was discovered, the towns could  
24 fix it. We then worked with partners to address  
25 Wreck Pond's other vulnerabilities, which

1 included some post Sandy fixes which included a  
2 second outfall pipe, sluice gate and a living  
3 shore line to help reduce localized flooding.

4           I had the pleasure of announcing  
5 this event this past winter, and it was a good  
6 reminder that you're Deputy Commissioner when  
7 you're on the beach in the winter at Wreck Pond  
8 announcing this event. It was very warm that  
9 day, but a worthwhile project and glad they were  
10 able to make that announcement. Shark River is a  
11 similar story. It's another example of how DEP  
12 is focused on stormwater related issues.

13           Several studies were conducted in  
14 2015 and areas with elevated levels of bacteria  
15 were found during storm conditions. This  
16 resulted in a ban on shellfish harvesting in the  
17 area. The presence of bacteria suggested a  
18 possible unpermitted waste water discharge.  
19 Municipal counties and state representatives  
20 worked together to find a source of  
21 contamination.

22           They identified areas of the sewer  
23 line that were leaking, allowing contaminated  
24 water to make its way through ground water and  
25 eventually into the Shark River. Neptune City

1 Township and Belmar responded quickly, preparing  
2 and replacing portions of the sewer line to  
3 eliminate discharge improvement water quality in  
4 the river. Another example occurred this summer  
5 when we had unusual exceedances at two Atlantic  
6 Highlands beaches. Island Public Works partnered  
7 with DEP staff to identify a sanitary sewer line  
8 break that was negatively affecting water quality  
9 at Mary's Creek which was causing the high levels  
10 of bacteria at both beaches.

11                   Once identified, Highlands quickly  
12 repaired the sanitary sewer line. Subsequent  
13 monitoring indicated that bacteria levels were  
14 back within accessible ranges and the beaches  
15 were reopened. When working with partners like  
16 this and by taking a find and fix approach, we  
17 can quickly address non-point source pollution  
18 that otherwise can affect water quality for  
19 years.

20                   Sometimes these fixes are easy and  
21 sometimes the problems are more difficult to find  
22 and take a larger investment to repair. We've  
23 been successful in addressing both. However, the  
24 commitment and partners needed to engage to make  
25 it happen. By investing and recovering

1 resilience projects such as these, we're  
2 safeguarding and protecting our coastal  
3 communities, working to improve the  
4 infrastructure and ultimately preserving our  
5 42 billion dollar tourism industry from future  
6 storms.

7           I'd like to turn to talk about  
8 Barnegat Bay. As you know, the Governor, the  
9 long term restoration of this Barnegat Bay has  
10 been the Governor's top priority during this  
11 administration. Barnegat Bay is a vital  
12 importance to the state's culture, history,  
13 economy and environment, but the bay is a  
14 vulnerable resource that needs to be protected,  
15 enhanced and restored so it can be enjoyed by all  
16 generations to come.

17           For this reason, in 2010, Governor  
18 Christie directed DEP to move forward with the  
19 ten point plan to clean up and restore the bay.  
20 The plan has resulted in successful actions that  
21 have helped the bay, including funding of 24  
22 million dollars and 31 stormwater infrastructure  
23 projects and upgrades within the bay's watershed.

24           New Jersey's first comprehensive  
25 water monitoring network for both fresh and



1 marine water quality was established for the  
2 5,000 water samples taken and analyzed. Governor  
3 Christie signed legislation that established the  
4 most restrictive standards, the nation for  
5 nitrogen content and fertilizer and application  
6 rates for use. Reserved more than 11,000 acres  
7 of open space and the watershed through Green  
8 Acres, the Ocean County Natural Land Trust and  
9 its partners, all since 2011 and DEP has led  
10 eight successful Barnegat Bay blitzes, which is a  
11 volunteer event, which has resulted in thousands  
12 of pounds of litter being picked up by 32,000  
13 volunteers.

14                   In addition, as part of these plans,  
15 we funded 10 research projects focused on filling  
16 the data gap and addressing the health of the  
17 bay. These were completed by prominent  
18 professors at top universities, including the  
19 Academy of Natural of Sciences at Drexel,  
20 Rutgers, Montclair State, George Mason, Monmouth  
21 and Rider. The results create one of the most  
22 comprehensive research studies ever done in a  
23 single estuary.

24                   The research and monitoring clearly  
25 indicate that areas of the northern part of the

1 bay are impacted by nutrients due to stormwater  
2 run off. To address this, new TMDLs will be  
3 targeted in these areas. The central and  
4 southern parts of the Barnegat Bay are being  
5 targeted for protection strategies to ensure that  
6 the healthy areas stay healthy and enhancement  
7 strategies for the areas that need extra  
8 attention so that they do not become impaired.

9           Now, they are taken what we have  
10 learned and moving the science into action with  
11 phase two of this project known as the Barnegat  
12 Bay Restoration, Enhancement and Protection  
13 Strategy, we are providing 20 million in grants  
14 to municipalities and non profits to support this  
15 plan. Our studies have provided us with specific  
16 data, sound science in which we can base policy  
17 decisions moving forward.

18           Some people say we should have made  
19 these decisions eight years ago, but we had no  
20 data to back up these decisions. We didn't know  
21 where to focus our efforts, what the problems  
22 were and how to address the issues. Our studies  
23 provide us with enough information to move  
24 forward. We can now target TMDLs for specific  
25 areas and we have a baseline on which to measure

1 our improvements.

2                   Our goal remains the same since 2010  
3 since the 2010 announcement of comprehensive plan  
4 to follow the science in order to restore,  
5 protect and enhance the health of the bay. We  
6 will continue to work with our partners to  
7 educate, communicate and advocate for a healthy  
8 watershed. In fact, we've already been working  
9 with Toms River on the municipal stormwater  
10 compliance assistance and already had success  
11 with them.

12                   This is designed to help communities  
13 by identifying all areas of the operations that  
14 can benefit from improved technologies and  
15 procedures. This also includes financing and  
16 other resources that help them better manage  
17 their stormwater inland instead of sending  
18 pollutants to the river and ultimately the bay.  
19 This pilot has been significant in success and we  
20 hope to continue the successes in the future.

21                   Once again, on behalf of  
22 Commissioner Martin, I want to thank the members  
23 of the council for your service to the state.  
24 The state doesn't just want partners like the  
25 Clean Water Council to address these challenges.

1 We need them. We need your expertise, your  
2 energy, your perspective. There are a lot of  
3 groups out there who do a lot of talking and  
4 criticizing, but there are only a certain number  
5 of people who roll up their sleeves and do the  
6 work as this council does. I want to thank you  
7 for your leadership over the years. The  
8 Commissioner and I look forward to hearing your  
9 recommendations. Thank you.

10 (APPLAUSE)

11 MR. COSGROVE: We have a few  
12 minutes, if anyone has any questions for the  
13 Deputy Commissioner. So we're going to move on  
14 to our first speaker. Our first speaker is  
15 Brittany Musolino from the Stony Brook-Millstone  
16 Watershed Association, and she's going to talk  
17 about -- the title of her talk is Voluntary  
18 Action is Gaining Traction for Meaningful  
19 Stormwater Pollution Improvements. So with that,  
20 I'll turn it over to Brittany and if we could  
21 switch to her Power Point.

22 MS. MUSOLINO: Hi, everyone. The  
23 last time I was in this room presenting I was a  
24 watershed ambassador presenting on the work I did  
25 during my year of service, so it's really great

1 to be back talking about what I've done with  
2 Stony Brook-Millstone Watershed Association with  
3 the past two years now. And non-point source  
4 pollution is really the biggest thing we focus on  
5 as a nonprofit nonregulatory group, and it's a  
6 passion of mine which can be kind of a weird  
7 thing to say sometimes.

8           I think this room gets it a bit, but  
9 you know, preventing non-point source pollution  
10 is a majority of what we do as an organization,  
11 as a watershed group, and I just want to thank  
12 Jim Cosgrove for inviting me to speak today and I  
13 want to talk a little bit about our organization,  
14 get started. I know a lot of you are familiar  
15 with us. We're a member supported nonprofit that  
16 started in 1949, and we focus on Central Jersey  
17 and keeping its water clean, safe and healthy.

18           We do that through conservation  
19 advocacy, science and education, so a lot of what  
20 I'm going to be talking about today are projects  
21 that we've done through our science and  
22 stewardship department, and specifically through  
23 the River Friendly Certification Programs. So as  
24 an organization and tackling non-point sources,  
25 there are a few things that we really focus on

1 and a few programs that we do this through.

2           Our River Friendly programs offer  
3 certification to a variety of sites including  
4 residents, businesses, golf courses and schools.  
5 And I'll talk a bit more about what that entails  
6 in the next slide. Green infrastructure is a big  
7 focus of ours in the last year and-a-half or so,  
8 which I'll talk about a bit more with a grant  
9 from the DEP. And focusing on bioretention  
10 specifically and designing for better  
11 infiltration of water.

12           Education and outreach is a large  
13 part of what we do. Our education department is  
14 probably our biggest department of the  
15 organization. It educates over 10,000 adults and  
16 students a year, and that is the biggest, I  
17 think, foundation of a lot of this work is just  
18 educating people. It should always be a factor  
19 when you're thinking about a project or just  
20 working with groups in general to have that  
21 education component.

22           And water quality monitoring, which  
23 we've been doing since 1992 through the volunteer  
24 monitoring program, over 100 volunteers,  
25 monitoring about 45 sites in our watershed area,

1 and this is a really important piece to a lot of  
2 the green infrastructure projects and River  
3 Friendly specific projects. Having that  
4 monitoring before and after is something that you  
5 don't see a lot and it is usually a missing piece  
6 of grant money that we get, so that's something  
7 that we want to focus on a lot more in the  
8 future.

9               So our River Friendly programs began  
10 in about 2002. We got a large grant from the EPA  
11 to focus on non-point source pollution prevention  
12 through these programs and they have moved a lot  
13 through the years especially the last few years.  
14 We've really updated our standards and the way we  
15 work with sites and what we ask of them to submit  
16 to us. We have the four programs I mentioned and  
17 there's also a farms program, which I think is  
18 going to be really important, that we want to get  
19 involved with a bit more in the upcoming years.

20               It is now run by the North Jersey RC  
21 and D with support from the New Jersey Water  
22 Supply Authority as well, so they're the ones to  
23 go to ask about those, but similar focuses, goals  
24 to improve water quality, environmental health,  
25 really focus on stormwater management, wildlife

1 habitat enhancement, providing that kind of  
2 natural landscape for wildlife to have habitat,  
3 but for also water to really go somewhere and not  
4 just run off into our streams. This is all  
5 voluntary, as I said, so that's a good and a bad  
6 part about this, I think.

7           Having that voluntary component  
8 makes people more interested in what you're  
9 doing, more interested in the project and willing  
10 to work with you. The down side of that is  
11 getting them to do it, so that's where, you know,  
12 working and partnering with other groups really  
13 helps. Our River Friendly programs have recently  
14 developed a really strong partnership in the  
15 Raritan Basin with the New Jersey Water Supply  
16 History and American Headwater Association.

17           We all kind of work together to work  
18 with these different sites around the Raritan  
19 Basin, and it has been a success in getting the  
20 word out a bit more and doing more outreach  
21 through social media and other ways to reach  
22 different populations. The process by which we  
23 certify sites changes depending on the site, so  
24 with our business and courses we require a lot of  
25 documentation they submit to us on IP10 plans,



1 soil and landscape management, narrative, soil  
2 testing, pretty much everything they do on their  
3 site and a big focus on the stormwater management  
4 as well, all of their best management practices,  
5 and then we try to suggest some improvements they  
6 can make.

7                   Small improvements that will build  
8 up over the years, and usually these are  
9 certifications can take two to three years, so  
10 there's a relationship you develop with the site  
11 and you can really, you know, focus on meaningful  
12 projects. Our school resident program is kind of  
13 at a lower level. Schools really focus on the  
14 education of the students and the campus.

15                   Projects on campus and our resident  
16 program really just targets homeowner activity on  
17 the landscape, so it's really just a self survey,  
18 but it's a nice education for, you know,  
19 residents on kind of that smaller scale, but  
20 residential is also very still important. I  
21 think a lot of sources of non-point source  
22 pollution come from our residential area, so  
23 that's something that we really focus our  
24 attention on.

25                   So some monitoring approaches we use

1 through the River Friendly program and other  
2 projects we do include integrated pest  
3 management, so making sure that they are using  
4 certain techniques like (inaudible) really  
5 knowing the insect or the pest that is affecting  
6 their site and using small dosages of pesticides  
7 or whatever they might be using, and timing.

8           As I said, soil and landscape care,  
9 using maps of where there might be issues on the  
10 sites, hot spots, pests, and just a lot of levels  
11 of their maintenance and what their routine is  
12 and documenting all of that. A lot of times  
13 we'll come to a site and they never really  
14 thought about writing it down, and the next  
15 person comes in and doesn't know what was  
16 happening on the site, so it's really that  
17 knowledge of businesses, campus or a golf course  
18 to continue those good practices.

19           And water conservation is another  
20 portion of this. This is just a few of the  
21 standards involved with the River Friendly  
22 certification. You know, water monitoring and  
23 irrigation tracking, making sure that there's no  
24 leaks, kind of basic maintenance that needs to be  
25 kept up on. We also perform a site visit to look

1 at buffer zones, stream health, pond health, just  
2 visual. Sometimes we'll go in there and do  
3 chemistry and biological as well to see if  
4 there's any further issues, so it's nice River  
5 Friendly kind of offers a way to get to kind of a  
6 higher level of working with the site, so we can  
7 do that monitoring.

8                   We can implement maybe bigger  
9 projects if they have funding to do so. I'm  
10 gonna actually talk about a specific example that  
11 we are working on right now. Meadow Lakes is a  
12 senior living community in East Windsor, and they  
13 applied to River Friendly Business Program about  
14 a year ago. And they have a very large pond  
15 which they have named Shanks Pond. I'm not sure  
16 why, but it is part of the Rocky Brook Tributary,  
17 so it then feeds into Penny Lake.

18                   I'll show on the next slide. They  
19 had some issues with Algal blooms really  
20 affecting their pond. They even have a smaller  
21 pond that you see on the slide and an even  
22 smaller pond, really so bad that you couldn't see  
23 anything, a blanket. I was told that they even  
24 lost a few swans which they keep on site to scare  
25 off geese which works really well actually. I

1 think it's a cool tactic, and they really do  
2 treat the pond with a variety of different  
3 products including something called Sludge Away,  
4 copper sulfate.

5               So we're really trying to work on  
6 decreasing what they have to put into the pond  
7 and really tracking what is happening on the site  
8 which we've done through actually mapping all of  
9 the inlets around the site, and there's a lot,  
10 and all the outfalls that are going into the pond  
11 as we have been monitoring before our project.  
12 So we were lucky enough that this community had a  
13 resident that wanted to donate a nice chunk of  
14 money to us to install floating wetlands, which  
15 was a new project for us as an organization and  
16 we are really excited about, so this is showing  
17 the site kind of from a higher view.

18               It is surrounded by the Peddie  
19 School and the Peddie Golf Course and the  
20 Turnpike, so there's a lot going on, and a lot of  
21 different water quality issues. Our monitoring  
22 in wet and dry weather in the spring and the fall  
23 showed impaired for phosphorus and hydrogen, not  
24 a big surprise, and higher where there are  
25 constrictions and a lot of kind of leak matter

1 and where the water wasn't flowing as well. So  
2 we developed maps and the research on pulling  
3 wetlands and are actually installing them  
4 tomorrow, so it was like a little too early to  
5 show you what they look like in the water, but  
6 I'm sure some of you know about the floating  
7 wetlands.

8                   This was us building them. You  
9 could do a DIY or you can purchase something  
10 called The BioHaven which is kind of the main  
11 product you get for the floating wetlands.  
12 They're made out of a fibrous material, kind of  
13 felt like a Brillo Pad, kind of scratched us up a  
14 bit, but it will allow for plants to grow through  
15 and really get down into the water and attack  
16 microbes and all these beneficial things that  
17 will soak up the nutrients from the water  
18 naturally.

19                   So they have the potential to move  
20 thousands of pounds of algae per year by soaking  
21 up those nutrients, nitrogen and phosphorus which  
22 is what we're aiming for. Our goal for this is  
23 to have the site just really stop treating the  
24 water by installing about 700 square feet of  
25 floating wetland, and we're going to do that kind

1 of piece meal over time and using plants that are  
2 really great at soaking up nutrients.

3                   So water loving plants that have  
4 strong roots and that are native, and that  
5 material, if you're wondering, it's called  
6 PolyFlow, so it's pretty simple to make and I  
7 know Rutgers does a lot of this work and have  
8 made videos about it. So this is something we're  
9 looking at to do more around the watershed. It  
10 is treating the symptoms and not the problem, but  
11 I think it's a nice way to bring attention to the  
12 issues in our watershed.

13                   It's a really nice educational  
14 piece, and I think it helps when you can't  
15 install green infrastructure on the site or when  
16 it's already an impaired water body, it's a  
17 really useful tool. There are a lot of different  
18 studies, but not too many hard numbers on, you  
19 know, what the removal rate is, but we are doing  
20 monitoring before and after to see that, but I  
21 have seen ranges of 40 to 90 percent removal of  
22 nitrogen and phosphorus.

23                   Some other real world approaches  
24 that we're doing include expanding no mow no  
25 spray areas on our River Friendly sites. That's

1 one of the main things we encourage, especially  
2 on corporate campuses. For example, Johnson and  
3 Johnson I was just at today, they are doing  
4 really great with expanding kind of their no mow  
5 zones on an almost 300 acre property, so that's  
6 one tactic.

7                   Green infrastructure of course,  
8 looking at redirection, disconnection of down  
9 spouts, capture and reuse of water, bioretention,  
10 kind of all the basic green infrastructure  
11 tactics, and then just general landscape best  
12 management practices. So maintenance, stormwater  
13 structure, landscape care, really knowing your  
14 soils, aerating, making sure infiltration is  
15 happening and pest management. So one example of  
16 a school we worked with is Princeton Day School.

17                   They're actually certified last year  
18 and they were interested in doing a rain garden  
19 on their property. It's a pretty big site,  
20 80 acres, and they had a really big erosion  
21 problem happening near their outdoor garden and  
22 playground, so you can see in this picture. This  
23 was before the rain and then that's after the  
24 rain. The storm drain is there. You just can't  
25 see it.

1                   It was completely covered with  
2 sediment, so definitely a big sediment issue.  
3 And we're hoping by installing a rain garden,  
4 kind of in a weird shape along in front of the  
5 storm drain, that we would help to remove solids  
6 and anything else that might be running into that  
7 storm drain. So this is a great way to get the  
8 kids involved and learn about stormwater issues  
9 and just about rain gardens in general.

10                   This was pretty much planned and  
11 designed by the school, so they're monitoring and  
12 having to add plants as the years go on. This  
13 was just installed last year, so they're going to  
14 have to -- you have to maintain it over the  
15 years. But bioretention can really be effective  
16 with TSS removal. These numbers are from the New  
17 Jersey BMP Manual, and this is what we use to  
18 show the effectiveness, or at least the  
19 theoretical effectiveness, of green  
20 infrastructure.

21                   And these numbers, I got from  
22 calculating the drainage area in the area of the  
23 rain garden, so there is a lot of, you know,  
24 calculations out there that can show the impact  
25 of a project, especially something like this



1 where it can be difficult to monitor. That's  
2 after planted and last fall they had no more  
3 sediment issues, so it's a small scale thing, but  
4 when it adds up, it can make a big difference.

5               Two of the large sites we work with  
6 is through the River Friendly program, Jansen  
7 Pharmaceuticals and Jasna Polana, which is a golf  
8 course in Princeton have increased their no mow  
9 zones 5,000 of square feet and replaced just  
10 mowed grass that they were probably fertilizing  
11 and may have been compacted with wildflower, New  
12 Jersey native wildflower plantings. A vegetative  
13 filter can remove up to 70 percent TSS and 30  
14 percent nitrogen and phosphorus, DPP.

15               So even simple projects like this,  
16 getting rid of lawns and mowed grass, even in  
17 stormwater basins, can make a big difference. So  
18 this was actually a policy department project.  
19 Mike Pisauero, which is here, worked on this  
20 stormwater ordinance in Princeton, and this was  
21 voluntary by Princeton themselves, so, you know,  
22 they really wanted to control their stormwater  
23 better.

24               That picture is shown from, I think  
25 Irene, and it's completely flooded the train

1 station and they have flooding issues pretty  
2 often, so they pretty much reduced the trigger of  
3 soil disturbance and impervious cover and that  
4 would trigger the state regulations of 80 percent  
5 TSS removal and not increasing run off from the  
6 previous levels. And then maintaining  
7 100 percent average annual preconstruction  
8 recharge.

9                   I had to look that up. And then  
10 they introduced a minor development regulation,  
11 so if you have an addition of over 400 square  
12 feet, you have to capture two gallons per square  
13 feet using green infrastructure, so that's not  
14 something we see a lot and we are working with  
15 them ongoing to implement more green  
16 infrastructure and work on the stormwater  
17 management, and this is just an example of what  
18 you can do at the municipal level.

19                   Our 319 grant which is from DEP.  
20 This is an example of how DEP support really  
21 helps our work with both focusing on non-point  
22 sources. We are doing an impervious cover  
23 reduction project which you may have seen Rutgers  
24 Water Resources have done in a lot of towns  
25 throughout the state, I think over 50 now, and it

1 includes selecting sites in 16 municipalities in  
2 our watershed just through mapping and then  
3 actually going to the sites on the ground doing  
4 visits and assessments and creating designs  
5 through RCIS to capture.

6           Our goal is to capture 100 percent  
7 of the run off volume, but to really do what we  
8 can with the site and then we present that to the  
9 township, so it ends up being a report of, you  
10 know, impervious cover assessment, land use  
11 assessment and all these kinds of ready to go  
12 projects. And if they're interested in doing  
13 that, we'll look for implementation money and try  
14 to get more green infrastructure in our  
15 watershed.

16           We also recently got a second grant,  
17 or approved for a second grant, to focus on the  
18 (inaudible) Brook watershed which I believe is on  
19 the 303(d) list and we will be doing green  
20 infrastructure in Hopewell Borough for that. In  
21 conclusion, there is kind of a holistic approach  
22 to non-point source. Just focusing on green  
23 infrastructure isn't going to solve everything.

24           Really focusing on how we're using  
25 our landscape and working with sites one on one

1 developing that relationship to, you know, reduce  
2 what is running off. Stronger policies at the  
3 municipal level, for example, stormwater  
4 management, which I talked about a bit, and the  
5 review process of new development or  
6 redevelopment. Riparian buffer zones, which is a  
7 big one, tree cover, just some examples, and  
8 education of course, should be with everything.

9                   And with that, I want to thank you.  
10 Thank you for having me to speak and I look  
11 forward to answering any questions you may have.

12                                   (APPLAUSE)

13                   MR. COSGROVE: Thank you, Brittany.  
14 Before we move to our next speaker, does anyone  
15 have any questions for Brittany? Quiet crowd  
16 today. Our next speaker is Nathaniel Sajdak.  
17 Nathaniel is the Watershed Director of the Sussex  
18 County MUA, Wallkill River Watershed Management  
19 Group and he's going to show us the money.

20                   That's a big issue here because it  
21 takes a lot of it to make these happen. He's got  
22 some great examples of how he was able to pool  
23 resources from different funding resources to be  
24 able to do some of these non-point source  
25 projects.

1 MR. SAJDAK: So my name is Nathaniel  
2 Sajdak. I'm the Watershed Director for the  
3 Sussex County Municipal Utilities Authority and  
4 Wallkill River Watershed Management Group.  
5 Brittany doesn't even know it, but she threw me a  
6 great fast ball, which don't tell my son I'm  
7 about to make a Yankee reference as a die hard  
8 Mets fan, but I'll put my best Aaron Judge swing  
9 on and reference the fact that Brittany talked  
10 about being a former watershed ambassador to the  
11 AmeriCorps Program, so taking that fast ball and  
12 hitting it out of the park, I'd like to applaud  
13 the Department of Environmental Protection.

14 I myself was also a watershed  
15 ambassador. I was in first class of ambassadors  
16 in 2000, 2001, so when we're talking about  
17 non-point source pollution and how do we go about  
18 dealing with this problem in the state of New  
19 Jersey. For 18 years, the Department of  
20 Environmental Protection has sponsored the New  
21 Jersey Watershed Ambassadors Program through the  
22 AmeriCorps Program.

23 And when you think about that,  
24 that's 18 years of ambassadors out there working  
25 with our public, with our community, to engage

1 these problems of non-point source pollution, so  
2 I want to thank the Department Environmental of  
3 Protection for continuing to sponsor this  
4 program. It is a great tool to help us with the  
5 problems that we're speaking about today. I  
6 would also like to thank Mr. Cosgrove and the  
7 Clean Water Council for inviting me to be here  
8 today.

9           I'm excited to spend a few minutes  
10 with you, I guess showing you the money. I don't  
11 have the money in my pocket to show you, but I'm  
12 going to speak to you about how we have been able  
13 to find unique opportunities to combine resources  
14 to work as partners to put a lot of these  
15 projects on the ground. And what you'll hear,  
16 and what I'm about to speak about, is there's a  
17 lot of similarities to make you think that  
18 Brittany spoke about, as well as what I'm going  
19 to speak about, happening in different areas of  
20 the state, completely different areas of the  
21 state.

22           But because they're happening  
23 simultaneously, we're making huge strides in New  
24 Jersey. Real quickly, my organization, the roots  
25 of our work, of our growth, started in those

1 early years of 2000s, when we were awarded money  
2 for the Sussex County MUA. It was awarded in one  
3 of those initial planning grants from the  
4 Department of Environmental Protection to jump  
5 start watershed management out in the local  
6 watersheds.

7                   The basis at the time was to go out  
8 there and develop these watershed restoration  
9 plans, tell the story of the watershed, find out  
10 what's going on, engage the community, find  
11 project opportunities, go out there, get the  
12 public involved in the work in trying to restore  
13 and protect our waterways. For years we've been  
14 working on targeted watershed areas in Sussex  
15 County, New Jersey up there in the northwest  
16 corner.

17                   Yes, I made references to Wallkill  
18 River Watershed Management Group, but we worked  
19 in both the Wallkill and the upper Delaware  
20 watershed, specifically here in Sussex County,  
21 the Paulins Kill Watershed, so I often like to  
22 think of ourselves as to becoming that watershed  
23 liaison for all of Sussex County. And similar to  
24 what Brittany spoke about, the basis or the  
25 foundation for our success and our growth have

1 been those education and outreach programs.

2           The community stewardship programs,  
3 getting people outside the meeting room into the  
4 field to be a part of a project or initiative.  
5 And then the staple of our efforts have been  
6 formed around three very important programs.  
7 Agricultural outreach and assistance program, a  
8 riparian ecosystem enhancement program and  
9 stormwater and outreach and assistance program.

10           And I'm going to speak to all three  
11 of those programs when I speak to you a bit more  
12 in a few minutes about the leveraging of  
13 resources and funding to put projects on the  
14 ground. Ultimately though, what I feel is the  
15 most successful component, the most important  
16 component of doing the work that we're doing,  
17 whether it's the watersheds that I work in or the  
18 watersheds that all of you work in, is being the  
19 local groups on the ground.

20           Being that entity that's there day  
21 in and day out, getting our hands and feet wet,  
22 studying the watershed, understanding what's  
23 going on out there. Studying the land uses,  
24 learning where the Ag resources are, where the  
25 agricultural land uses are, where the municipal



1 and developed land uses are or our recreational  
2 lands uses. We need to develop that  
3 understanding of the watershed if we're going to  
4 be able to successfully work with it, getting to  
5 know what's important to our stakeholders.

6               What are the recreational concerns,  
7 what are their interests, what is going to bring  
8 them to the table to want to work with us. And  
9 then ultimately, at that local entity, you are  
10 the person, you are the group, you are the  
11 organization that's building the relationships,  
12 that's forming the one on one friendships, not  
13 just partnerships, but friendships with the  
14 farmers and the land owners.

15              That's getting the students out  
16 there. That's working with the local businesses  
17 like a local nursery to supply materials for a  
18 project. Those relationships are critical when  
19 we're looking at trying to maximize the funding  
20 that we have available to us. I've been asked to  
21 speak specifically today about our work in the  
22 agricultural community and the municipal  
23 community, and I'll start with our work in the  
24 agricultural community.

25              Over the last few years, we have

1 worked aggressively to build a cooperative cost  
2 share program bringing together resources from  
3 the New Jersey Department of Environmental  
4 Protection and the non-point source 319 program  
5 in combination with USDA and NRCS. We have found  
6 unique ways to pair these resources, pair the  
7 partnerships, pair the technical skills to work  
8 with the farmers in our watersheds.

9           Ultimately, what we've been able to  
10 successfully achieve, is a combination of our 319  
11 funding resources that have been awarded to us by  
12 the Department of Environmental Protection with  
13 NRCS's EQIP funding to help that farmer put a  
14 project on the ground, that he or she may not  
15 have been able to do in the past, because they  
16 did not have enough funding to make up the  
17 difference.

18           Ultimately, the 319 funding that  
19 we've been able to secure from the department has  
20 allowed us to leverage with the USDA NRCS funding  
21 resources to get a farmer to that 90, 90 percent  
22 cost coverage for a project, leaving them with  
23 only five or 10 percent of the remaining to cover  
24 on their own, which is a lot easier to cover than  
25 say 30 or 40 percent of their remaining funds.

1                   We have successfully utilized these  
2 funds in Sussex County to put Ag restoration  
3 projects and Ag BMP projects on the ground and  
4 advocating Stony Brook Watershed as well as  
5 Paulins Kill watershed. You need a nucleus  
6 project. You need a demonstration to be able to  
7 showcase what you can do. In addition to that  
8 too, you also need a land owner. You need a  
9 farmer who is willing to take that gamble with  
10 you, and we had one of those farmers.

11                   Back in 2013 we had a farmer, in a  
12 Lawrence Township, a large dairy farm. He said  
13 he was willing to be our guinea pig. He let us  
14 sit at the kitchen table with him. When I say  
15 us, I mean us as the local watershed restoration  
16 group bringing DEP funding to the table, not  
17 NRCS. We needed to develop that trust, that  
18 friendship, not just a partnership, that  
19 friendship.

20                   And this farmer, he took us on his  
21 farm. He opened his farm property to us. He  
22 allowed us on the site to really understand what  
23 was going on out there. He engaged us in his day  
24 by day activities to understand where his  
25 problems were, where his resource concerns were.

1 And in the process of doing so, we built that  
2 trust and we developed an understanding of what  
3 was impacting his farm.

4                   Whether it be the manure stock piles  
5 or the barn yard run off or the unrestricted  
6 access that his livestock had to the surface  
7 ways. These are existing resource concerns on  
8 his farm. He wasn't happy about them. He wanted  
9 assistance with doing something to solve these  
10 problems, which ultimately we were talking about  
11 stormwater. These are stormwater run off  
12 concerns.

13                   Up in Sussex County, when we're  
14 talking about some of our farm operations, the  
15 run off from these properties is a significant  
16 concern to our waterways. So here we had a  
17 farmer who was asking for assistance and finally  
18 had a farmer that was willing to allow us with  
19 our funding from DEP, to work side by side with  
20 NRCS, to do something about it.

21                   So working with him, combining the  
22 resources, we were able to put Ag BMPs on this  
23 farm that included a concrete heavy use area,  
24 allowing this farmer to better manage that barn  
25 yard runoff, to better manage the manure

1 generators on this farm. The stormwater from his  
2 roof was redirected outside of the heavy use  
3 area, and then we also helped install a large  
4 manure collection tank that allows this farmer to  
5 collect up to six months worth of manure at a  
6 time so that he can better manage when he spreads  
7 it on his fields.

8           And providing him that ability to  
9 better manage that resource not only helps his  
10 operation, but it helps our job with respect to  
11 trying to improve our waterways. As a result of  
12 that nucleus project and that farmer that took a  
13 chance on us and was willing to work with us,  
14 word of mouth goes a long way.

15           And before we knew it, multiple  
16 farmers were finally willing to say, we will work  
17 with you as well, and as a result of that nucleus  
18 project, in the year since then, we have actively  
19 worked side by side with NRCS utilizing the  
20 funding from DEP, as well as many other partners,  
21 to get involved in other Ag BMP projects  
22 including, as you see here, soil erosion control  
23 measures such as grass waterways, covered heavy  
24 use areas, concrete heavy use areas, we dealt  
25 with liquid manure BMPs.

1                   We've been actively involved in  
2 assisting with cover crop. We're also currently  
3 involved in a live stock waterway exclusion  
4 project on another large area farm in the Clover  
5 Brook watershed. We've assisted with funding for  
6 comprehensive nutrient management plans which  
7 opens up the door for the Ag BMP projects to get  
8 on the ground, and last but not least, just as  
9 important as that list of structural Ag BMPs on  
10 our agricultural lands, are those riparian  
11 buffers and Brittany started speaking to that as  
12 well in her presentation.

13                   That specific project I just  
14 referenced is only one of many different success  
15 stories that we've been able to generate side by  
16 side with the specific landowners in the  
17 watersheds we're working in. One very dear to my  
18 heart and very important to me is what I call the  
19 Ideal Farm story. Ben and Jan Jorritsma of Ideal  
20 Farms in Lafayette, New Jersey right there in the  
21 heart of the Paulins Kill watershed, they too  
22 were one of those landowners that said you can  
23 come work on my farm.

24                   You can come work on my property,  
25 what would you like to do. They put their land

1 in our hands to find something to help them with  
2 their properties, and as a result, that small  
3 little one mile stretch of Paulins Kill River  
4 that they opened up to us, they allowed us onto  
5 that property to begin a riparian restoration  
6 effort. That riparian effort, that's a flood  
7 plain improvement project designed to improve the  
8 ecosystem functions of that flood plain, to  
9 better manage stormwater, and we had a retired  
10 grazing pasture that was no longer being used for  
11 Ag activity.

12                   And I remember when I asked Jan  
13 Jorritsma for permission for us to utilize the  
14 funding resources we had to plant her property,  
15 she said yes and she's been asked over and over,  
16 why did you allow that organization to go out  
17 there and do that work. And her answer in the  
18 beginning was always it just made sense. She had  
19 no use for the property anymore for Ag purposes  
20 so why not allow for restoration to take place on  
21 her farm.

22                   Little did she know, the impact that  
23 she would have in allowing us to start that  
24 project on her property because here we are five  
25 years later, and what started on the Jorritsma

1 farm on this one mile stretch has now resulted in  
2 a four mile continuous riparian restoration  
3 corridor bringing together this entire list of  
4 partners and funding resources that you see.

5               Over 12,000 trees have been planted  
6 throughout this entire corridor covering  
7 four miles, as I said, linking agricultural  
8 properties, state protected properties,  
9 commercial properties, not to mention hundreds  
10 and hundreds of community volunteers who have  
11 gone out there and participated in this effort.

12              Little did Jan Jorritsma know that  
13 when she allowed us to go on that property, this  
14 would be the result, and what we have now brought  
15 to the table is a project that is making a real  
16 difference in the Paulins Kill watershed and  
17 connecting funding partners and resources, like  
18 you see over there, in a unique way that is now  
19 being duplicated throughout the entire state.

20              What I reference with regards to all  
21 these farm properties with the agricultural  
22 properties, combining of the resources, finding  
23 unique ways for us partners to work together can  
24 be duplicated and repeated on our other land use  
25 areas. That being said, how about our municipal



1 properties. How about our developed areas.

2 Here's a perfect example. The town of Newton,  
3 looking at an aerial map of their municipal park.

4               We studied that municipal park at  
5 the local watershed entity just like we did the  
6 farm. We go to the municipal officials in that  
7 town and we try to develop that same partnership,  
8 and I'm going to use the word again friendship  
9 like we do on the farm. You cannot begin to  
10 implement these projects and find ways to combine  
11 the resources without having that friendship and  
12 that trust, and believe it or not, using the  
13 success stories on the farms help us when we get  
14 to the municipal parks, and you need to find that  
15 little hanging fruit, that nucleus.

16               In the town of Newton, there's a  
17 very simple low hanging fruit that we were able  
18 to capitalize on. That little X marks the spot  
19 there was an area where there was a very large  
20 stream debris clog right behind one of their  
21 municipal buildings, so little did the town know  
22 of the significance of that little stream debris  
23 problem because ultimately during storm events,  
24 the storm unloading coming from the urban areas  
25 of town was impacting the stream and ultimately

1 flooding this park area, their township park.

2           The biggest concern was the ball  
3 field which was being inundated by the flood  
4 waters during large events. Here was a perfect  
5 opportunity to form that friendship with the  
6 township DPW, and when you're going to try and  
7 implement projects in municipal land or on  
8 municipal land, there is no bigger ally than the  
9 township DPW. I think many of you in the room  
10 can agree with that statement, so here we help  
11 them develop a process.

12           We helped them get the permit by  
13 rule approval, from the Department of  
14 Environmental Protection, to perform that stream  
15 clean up. So we performed that stream clean up.  
16 The guys from DPW, they loved the opportunity to  
17 do something in their stream. It was different  
18 from the day by day operations that they're used  
19 to. As a result, we had that little hanging  
20 fruit victory which gave us the ability to form  
21 the friendship with the DPW, which has now  
22 resulted in all kinds of additional work projects  
23 in their municipal park.

24           That friendship, that's a form of  
25 resource commitment because getting our township

1 DPW, our municipal DPW, to help us put these  
2 projects on the ground, that is a form of funding  
3 in itself, so the ability to leverage the  
4 resources, start by having a funding source that  
5 allows our organization to go out there to form  
6 that friendship. Once we form that friendship,  
7 we work with the municipality, we bring in other  
8 partners and we put a project on the ground.  
9 Just next door in neighboring Hampton Township,  
10 another great little hanging fruit for us, the  
11 local municipal school, and similar to what  
12 Brittany spoke to.

13                   You're looking for projects of  
14 opportunity in our watersheds because when we  
15 find the project of opportunity, you have an  
16 ability to bring the partners together. People  
17 are attracted to projects like this. They want  
18 to use the funding resources, the technical  
19 resources and the skills they have to help. In  
20 this case, this school gave us 300 resources, 300  
21 students.

22                   300 students that were wanting to  
23 learn, that wanted to do something about their  
24 watershed. The river is right in their front  
25 yard, so here we go again. We saw an opportunity

1 to bring together partners. We saw an  
2 opportunity to bring the township BPW back into  
3 another project. We saw an opportunity to bring  
4 the local nursery into the project.

5               We were able to combine funding  
6 resources from the Department of Environmental  
7 Protection, the William Penn Foundation, the  
8 National Fish and Wildlife Foundation, Rutgers,  
9 New Jersey Future, and many others, to put a  
10 large rain garden on the ground on this school  
11 campus. Brittany, I'm not trying to turn this  
12 into a competition, but ultimately, what we ended  
13 up building here was a rain garden that was  
14 3,800 square feet in size, capable of managing  
15 close to 500,000 gallons of stormwater a year.

16               That's 500,000 gallons of stormwater  
17 that's being infiltrated into this rain garden  
18 and not into the Paulins Kill across the street.  
19 Most importantly, with this project outside of  
20 the water quality improvement that we were  
21 getting, we were getting a community of three to  
22 400 students, parents, administrators, faculty  
23 members who were invested in a project.

24               We brought together local community  
25 members who now understood why we were doing

1 this. When you think about all the different  
2 funding contributions that came in the form of  
3 hand labor, township BPW, any kind of services to  
4 help us build the site, local Cerbo's Nursery  
5 helping to donate lots of the plant materials.  
6 In addition to the community members that are now  
7 helping to take ownership of this and maintain  
8 this project, and all that's happening without  
9 having a direct amount of money in my pocket to  
10 show you because we built the friendships.

11                   We built the relationship. When we  
12 look at that rain garden today, it's over a year  
13 old now. It has served as the nucleus, just like  
14 that farm project did for many other projects.  
15 And as a result now, there are other funding  
16 sources that have come to our table because of  
17 the success of this project. Additional funding  
18 from the Department of Environmental Protection,  
19 from the William Penn Foundation, National Fish  
20 and Wildlife Foundation, New Jersey Future,  
21 Rutgers, is now allowing us to explore other  
22 project opportunities on this campus, other  
23 project opportunities in the lakes surrounding  
24 this campus and then also in the town of Newton.

25                   And I'll explain that in a second,

1 but ultimately we talk about the funding  
2 resources that are out there, and sometimes those  
3 best funding resources are in the form of that  
4 community partnership project because when you  
5 bring these partners together, all of a sudden  
6 the costs of a project disappears and instead are  
7 magnified in the effort of all these partners  
8 working together to make it happen. So I spoke  
9 about the town of Newton. I spoke about that  
10 McKeown School being our nucleus project.

11                   Well, starting next week, that same  
12 process is going to be repeated right next door  
13 in the town of Newton in their Memory Park, not  
14 quite 3800 square feet, but 3200, I'll take it.  
15 The township BPW is going to help us once again  
16 with the excavation of the site. The local  
17 nursery is helping to donate some of the  
18 materials. Funding was provided for the design  
19 of the project from the William Penn Foundation  
20 and New Jersey Future working side by side with  
21 Rutgers University in their Water Resources  
22 Department.

23                   And then once again, students from  
24 the local schools there in the town of Newton are  
25 coming to help us build this project, and those

1 are only some of the resources that are coming to  
2 help us put this project on the ground. When I  
3 think about the overall picture, I'm trying to  
4 tie it all together for you. For our  
5 organization, the 319 non-point source program  
6 here is sponsored by the Department of  
7 Environmental Protection has been that funding  
8 foundation over the years that has allowed us to  
9 build something.

10                   It has empowered us to create  
11 projects, to make things happen. And that  
12 funding source, similar to what Brittany was  
13 speaking about, has allowed us to go out there  
14 and work with others to get those technical  
15 resources and guidance that we need and it has  
16 also allowed us to build partnerships with other  
17 partners that are sponsoring the growth of these  
18 projects.

19                   That funding source from the  
20 Department also put us in the position to be  
21 able, as a small watershed organization, to  
22 really benefit when the William Penn Foundation  
23 launched the Delaware River Watershed Initiative  
24 in April of 2013. If you're not already familiar  
25 with the William Penn Foundation and the Delaware

1 River Initiative, which I'm sure many of you are.

2           As they quote, this program was  
3 designed to bring together a form of  
4 collaboration amongst conservation organizations  
5 that hadn't been seen before, and ultimately what  
6 it has allowed is for a partner, a bridging of  
7 partners that, in my opinion, is the strongest  
8 that there has ever been. When I think about the  
9 critical keys to success, and specifically, I was  
10 asked about how do we leverage all of our  
11 resources. Well, the first step is to identify  
12 those resource concerns.

13           We can't put a project on the  
14 ground. We can't find funding sources to help  
15 put that project on the ground unless we truly  
16 understand what those resource concerns are.  
17 Then we generate the management strategies. Then  
18 we foster those unique cooperative partnerships  
19 that allow us to share and leverage the resources  
20 and most importantly, then we engage in the power  
21 of the community.

22           We're all being asked here today,  
23 how can we handle non-point source pollution in  
24 New Jersey. All of us in the room are tied to  
25 this day in and day out in some way, shape or



1 form. We do that as professionals, we do that as  
2 conservation organizations. We do that as  
3 partners in this field. But we can't do it by  
4 ourselves. We need that community to be a part  
5 of it with us.

6           So the power of leveraging and  
7 funding. Leveraging resources. How is that  
8 helping us try restoration and stewardship work.  
9 Well, the reality is, it is helping us to improve  
10 the water quality and the watershed health of our  
11 watersheds here in New Jersey. It's helping us  
12 enhance ecological habitats. It's helping us  
13 create new recreational opportunities.

14           Remember one of my first slides said  
15 what's important to the community members that we  
16 work with. We need to recognize that sometimes  
17 there's no recreational opportunities, so we  
18 expect that is something that's important to  
19 them. We can use that. And in helping them  
20 understand why we need them to work with us, we  
21 raise that educational awareness, and then  
22 ultimately we promote active involvement by the  
23 community because by promoting that involvement,  
24 we generate a sense of stewardship.

25           When all is said and done, we engage

1 our community in a way that puts them in the  
2 watershed. It gets them out of the classroom, it  
3 gets them out of a meeting room, it gets them out  
4 of their home into the field. People, I feel  
5 these days, are looking for these opportunities,  
6 whether it's a student, an adult, any type of  
7 community member, they want to help in their  
8 watershed. They want to be a part of something  
9 special.

10           Through these efforts, through this  
11 leveraging, through this partnership, we're  
12 allowing these community members to become better  
13 aligned in partnership with the important  
14 governmental and foundational organizations that  
15 we speak about. Most importantly, the logos you  
16 see on here. The New Jersey Department of  
17 Environmental Protection, USDA NRCS, National  
18 Fish and Wildlife Foundation, U.S. Fish and  
19 Wildlife Foundation and the William Penn  
20 Foundation to name a few.

21           Remember I had that picture way back  
22 in the beginning of, I'll admit that is myself,  
23 standing in the stream there trying to define or  
24 figure out what's going in our watershed. When  
25 this picture was taken years ago, we were a small

1 watershed organization trying to figure out what  
2 do we do with our watersheds, how can we write a  
3 story, how can we find a project.

4                   And through all of this partnership  
5 collaboration, through the funding resources that  
6 have been provided, through the grants from the  
7 Department of Environmental Protection that has  
8 allowed us to grow into -- or have an  
9 organizational structure, the partners that have  
10 now come together to join the three logos up top  
11 are enabling us to put projects on the ground;  
12 are enabling us to find the money to actually  
13 make something happen.

14                   And it's those success stories,  
15 whether they're Ideal Farm's success story, or  
16 that manure management project, or the McKeown  
17 School Rain Garden or next week the Newton Rain  
18 Garden, or any of the projects that Brittany  
19 spoke to you about, when all these partners come  
20 together, we're finding a synergy. We're finding  
21 common ground, and I'm proud to say, since my  
22 years as a watershed ambassador, and now I'm been  
23 the watershed director for the MUA for 16 years,  
24 today, I feel very confident when I say this.

25                   I think the communication and

1 collaboration between all of these various  
2 organizations, between all the different  
3 organizations represented here in the room, it's  
4 the highest it has ever been. I think it's the  
5 strongest it has ever been. And as a result, we  
6 are all working together to find unique ways to  
7 bring our resources together because we all have  
8 a common ground, we all have a common goal. We  
9 want to improve the water quality of our  
10 waterways here in New Jersey.

11                   And I think when all is said and  
12 done, if we allow ourselves to harness the  
13 momentum that is now in place to work together,  
14 to find ways to bring resources together, we're  
15 going to put more and more projects on the ground  
16 and we're going to reduce, as Jim had in his  
17 slides earlier, the amount of red and yellow that  
18 was on that bar graph that he had.

19                   And I'm confident we're going to do  
20 that, not just by being the people that we are in  
21 this room working on this day by day, but by  
22 getting the community members that we are  
23 targeting to work with us day by day. I'll leave  
24 you with this note. I referenced the students at  
25 McKeown School. I had those 300 students that

1 participated in the development of that rain  
2 garden, and you may think, well, they  
3 participated in that rain garden project.

4           It was an opportunity to get out of  
5 the classroom, get out there and build something.  
6 Well, it's about creating a movement. It's about  
7 creating something for the future and we had 30  
8 of those students come out, and get ready for  
9 this, participate in a summer stormwater camp.  
10 Not exactly the way you expect kids to want to  
11 do, but these students came out and participated  
12 in a week long stormwater camp where they went  
13 out and measured their parking lot.

14           They went out and figured how much  
15 stormwater was coming off of the parking lot for  
16 the next project and it's that sense of  
17 environmental stewardship that we're trying to  
18 instill in our communities. And by doing that,  
19 that in itself is a funding resource that doesn't  
20 require us to actually find the money to empower  
21 those kids because now we've created that  
22 opportunity.

23           So I appreciate the opportunity to  
24 speak here this afternoon. Thank you very much,  
25 and if there are any questions before we move

1 into the public testimony, we'd be welcome to  
2 take those.

3 (APPLAUSE)

4 MR. COSGROVE: Peggy has a question.

5 MS. GALLOS: That was very  
6 inspiring. Can you talk a little bit about  
7 Sussex County MUA and what the value for their  
8 participation is? And that's an unusual  
9 participant.

10 MR. SAJDAK: That's one of my  
11 favorite questions, and it is one I am very proud  
12 to answer as I stand here 17 years later.  
13 Because the Sussex County MUA -- here is the  
14 basis for that. The MUA was identified to be the  
15 host agency on a watershed planning grant from  
16 the Department of Environmental Protection back  
17 in 2000. They were designated by the Sussex  
18 County Board of Chosen Freeholders to accept that  
19 grant from the Department to sponsor watershed  
20 management.

21 And I will admit, when I came on  
22 board as a watershed ambassador, I was fresh out  
23 of college. I joined into this effort and I  
24 learned very quickly, that that was a very  
25 controversial decision at the time and there were

1 a lot of people that weren't in agreement with  
2 it.

3               To make a long story short, the MUA  
4 has served to be our administrative agent, that  
5 umbrella that allows us to operate as a watershed  
6 management group. Now, myself and I have two  
7 other staff members. Christina Rogers is with me  
8 here today. I have another staff member who was  
9 with NRCS today ironically at a meeting and we  
10 also relied on the watershed ambassador program.  
11 There's four of us operating under that MUA  
12 umbrella.

13              So the MUA, in a way, they operate a  
14 solid waste and recycling facility and a waste  
15 water treatment plan. And over the course of  
16 17 years, our watershed management group has, in  
17 a way, become the third entity or the third arm  
18 of what they do for Sussex County, so the way  
19 they benefit. In fact, I was honored yesterday  
20 to give a presentation in front of the Board of  
21 Commissioners, very similar to this one, speaking  
22 about some of our upcoming projects.

23              And they are benefitting from the  
24 fact that we are out there putting projects on  
25 the ground that are done with their partnership

1 support. They are serving as an entity that's  
2 providing us a lot of in kind office space, use  
3 of a vehicle. And that type of support is  
4 funding that we don't need to ask for in the  
5 grants that we submit, including the Department  
6 of Environmental Protection. The MUA is helping  
7 to provide that for us.

8 But ultimately, they are benefitting  
9 because they get to, as our side by side partner,  
10 be rewarded by the community engagement, to be a  
11 part of the projects we're putting on the ground.  
12 And to this day, I still speak very highly that  
13 they have allowed us to grow into what we have  
14 and given us the support to make things happen.

15 MS. MEISTRELL: So I am project  
16 director with New Jersey Audubon. And my  
17 question is, what, in terms of the riparian  
18 forest restoration, how much Ag land, either crop  
19 land or pasture land, was actually converted to  
20 create the riparian buffer project. And if that  
21 number is low, which I'm imagining some of it is  
22 pretty low, do you have a sense of whether or not  
23 there's going to be a lot of momentum and a push  
24 into expanding that buffer? And then another  
25 part of all of this is what is your long term



1 maintenance strategies for the riparian buffer.

2 So three questions all wrapped up in one.

3 MR. SAJDAK: So looking at that  
4 corridor, that's what you're referring to,  
5 correct?

6 MS. MEISTRELL: Yes.

7 MR. SAJDAK: When you ask about how  
8 much Ag land was converted to forested buffer, in  
9 fact, one of the things we like to study is the  
10 amount of acreage that is being reforested. In  
11 that particular corridor, nothing in that  
12 corridor is specifically active or current  
13 agricultural lands.

14 They were all retired Ag pastures  
15 which, unfortunately, over the years has become  
16 inundated by invasive species, as I'm sure many  
17 of you are familiar with. Whether it be, you  
18 know, (inaudible), purple loosestrife or reed  
19 canary grass being one of our biggest culprits.  
20 That project on the Jorritsma farm, what's unique  
21 about it is, not only are we reforesting that  
22 corridor, but we're doing in it partners with the  
23 (inaudible), which is now put, through the  
24 Weather and Preserve Protection Program, a  
25 permanent easement on that property.

1                   Approximately, 20 acres of that  
2 property have been a part of the reforestation  
3 efforts. That's a unique example because of the  
4 fact that we're not retiring active Ag lands to  
5 put the project on the ground. Instead, we're  
6 working with lands that were formally Ag lands.  
7 So I hope that answers your first question.

8                   MS. MS. MEISTRELL: Yes, it does.

9                   MR. SAJDAK: The long term  
10 maintenance program. Well, we have been  
11 preaching for so long now, and everyone is very  
12 much in agreement with this, the maintenance on  
13 this project is huge. There is no question about  
14 it. You cannot have a successful reforestation  
15 project without being out there day in and day  
16 out, finding ways to see what's going on,  
17 responding to the pressures, and then doing  
18 something about it regularly.

19                   Those tree tubes that you see in the  
20 pictures of our flood plan restoration on the  
21 Jorritsma site, I am very proud to say, there are  
22 a few trees last week that hit the five year mark  
23 and the tree tubes that we use, I'm sure many of  
24 you are familiar with these tree tubes. They're  
25 made by Tubex. They have a seam in them that

1 splits once the tree gets big enough and we had  
2 our first tree tube split this year and we were  
3 so proud.

4                   So we take the tree tubes off and  
5 they're recycled. From a maintenance  
6 perspective, we will not work on a property  
7 unless we know there is some sort of management  
8 strategy in place. Believe it or not, one of the  
9 things we don't do is working side by side with  
10 NRCS, we've convinced them of the importance of  
11 the maintenance and they are now allocating some  
12 funding resources to cover maintenance costs on  
13 projects like this where they will fund the  
14 contractor to go out there just like an EQIP  
15 contract to perform maintenance work, to go out  
16 there, reset the tubes after a big storm event,  
17 control additional invasives that are pressuring  
18 those trees that we planted.

19                   So management strategies or  
20 maintenance is without a doubt something that  
21 needs to be incorporated before we actually --  
22 there was a third question, too, wasn't there?

23                   MS. MEISTRELL: Yes, there was. If  
24 you see that there is some momentum in trying to  
25 expand these buffers and ultimately to convert

1 some areas into riparian forested buffers or  
2 expand the buffer width itself.

3 MR. SAJDAK: So this project,  
4 because it's now set a precedent for many other  
5 areas, particularly in my neck of the woods, up  
6 there in Sussex County where we have active  
7 buffer projects now in the neighboring  
8 watersheds, like Cascades, like the Wallkill,  
9 like the Clove Brook, so the momentum is very  
10 much in place. The tree tubes have become the  
11 best press release, not only for the public, but  
12 other land owners who want to be a part of it.

13 We're working very closely with the  
14 nature conservancy who is also influencing buffer  
15 projects. You guys at New Jersey Audubon are  
16 putting all these buffer projects on the ground,  
17 but in addition, we also have sites similar to  
18 that where we are combining strategies. So your  
19 colleague, John Park, and I are working on  
20 similar properties where we won't reforest this  
21 section.

22 We'll manage it as a grasslands  
23 habitat to better improve a bird habitat, so that  
24 type of dialogue and synergy is what I'm speaking  
25 about, how we're combining our restoration and

1 conservation strategies, instead of competing  
2 with one another.

3 MS. MEISTRELL: Thank you.

4 MS. SANCHEZ: As a follow up to that  
5 question, I was wondering if there was, if you  
6 found any conflict with NRCS, if you found any  
7 conflict between NRCS and Stroud and some of the  
8 other agencies worked about how wide that buffer  
9 width should be. That's only one of my  
10 questions.

11 MR. SAJDAK: Projects of  
12 opportunity, we will work with what's provided to  
13 us. You know, speaking to that, you also have to  
14 work with the land owner. You can only  
15 accomplish what the land owner is going to allow  
16 you to do. But in all honestly, if the land  
17 owner is gonna give you 50 feet to work with,  
18 we'll take it. If in that case, we're going to  
19 have 300 feet or possibly even more, we're  
20 certainly going to take it.

21 I would also say from my small  
22 group, that the William Penn Foundation  
23 Initiative has allowed us to partner with  
24 somebody like Stroud and to be able to work with  
25 the technical skills and expertise that Stroud

1 brings to the table has been instrumental in our  
2 work, so I feel there is such dialogue in place  
3 right now to prevent that type of debate and  
4 allow it to work side by side.

5 MS. SANCHEZ: That's good too  
6 because I'm more familiar with work that's been  
7 done on the (inaudible) and there was quite a bit  
8 of controversy with the NRCS money and taking  
9 land out of tillage, what they would cover, what  
10 they wouldn't cover as far as widths of that  
11 buffer and that would be what the track record is  
12 they would cover so that's one of my questions.

13 I'm not familiar with the Wallkill.  
14 My question is, do you have anything other than  
15 domestic water supply up there and mostly wells?  
16 Do you have any larger purveyors and have they  
17 got, if you do, if you do, do you see expanding  
18 into getting them as partners?

19 MR. SAJDAK: No and no. The reality  
20 is most of Sussex is all on private well supply  
21 or community well supply. There's a few small  
22 public water supplies, but with respect to  
23 partnering with a water supply authority in  
24 Sussex County, we do not have the opportunity,  
25 no.

1 MS. SANCHEZ: Thank you.

2 MR. SAJDAK: Jim, thank you very  
3 much. I appreciate the questions.

4 (APPLAUSE)

5 MR. COSGROVE: Okay. Why don't we  
6 take a five minute break before we move to the  
7 public hearing portion of the day.

8 (Whereupon a break was taken.)

9 MR. COSGROVE: We're going to get  
10 started. Okay, folks. We're going to move to  
11 the public portion testimony of our afternoon.  
12 I'm asking everyone to please keep your testimony  
13 to five minutes. We would be more than happy to  
14 take longer testimony written from you and we  
15 would love to have, even if your testimony is  
16 under five minutes, we would love to have it  
17 written as well.

18 It will help us sort through all the  
19 comments at the end, so we have seven people so  
20 far that have signed up to testify. We're going  
21 to start with Laura Tessieri from North Jersey RC  
22 and D. If you would come up to the microphone  
23 and thank you.

24 MS. TESSIERI: Thank you. I'm Laura  
25 Tessieri. I'm the Associate Director of the

1 North Jersey RC and D, Resource Conservation and  
2 Development Council. We're a small nonprofit  
3 located in Asbury, New Jersey along a beautiful  
4 stretch of the Musconetcong River, not too far  
5 north of Route 78. And our mission speaks  
6 towards working towards the sustainable use and  
7 protection of natural and human resources through  
8 innovation, education and partnerships.

9               As Nathaniel spoke, partnerships are  
10 key. We couldn't really join together and  
11 achieve, what we're able to achieve, without our  
12 partnerships and so we work with NJ DEP 319  
13 grants, with NRCS, with partner agreements and  
14 also through the grants that they're able to make  
15 to their producers, the Delaware River Watershed  
16 Initiative and New Jersey Department of Ag and  
17 others.

18               So the goal that we work with on  
19 this grant funding, we work towards water quality  
20 improvements through green infrastructure  
21 installations, with municipalities, with  
22 residents and others, things such as the rain  
23 gardens that were mentioned today. We also work  
24 with Ag producers. And our work with Ag  
25 producers, anything from repairing buffers to



1 heavy use protection facilities.

2               Stream crossings all for the good of  
3 water quality, and we also have a voluntary  
4 program, along with the Water Supply Authority,  
5 the River Friendly farm certification, so we  
6 really try to educate the producers through that  
7 initial voluntary program where we go out on  
8 their farms and take a look at their resource  
9 concern and possibly work with them further  
10 through DEP and NRCS grants. And then our aerial  
11 cover crop seeding program, over 2,000 acres of  
12 area covered crops were seeded this year in some  
13 targeted watershed areas.

14               So furthering through with that  
15 cover crop seeding, we want our soil to stay  
16 covered. I heard at a soil conference the past  
17 couple days, Ray Archuleta, quote, we don't have  
18 a run off program. We have an infiltration  
19 problem. So I think we really need to work  
20 towards soil health, to really work towards  
21 voluntarily, not necessarily calling out a  
22 producer, but instead working through them for  
23 stewardship also to, you know, save them time,  
24 money, fuel, costs and not have them be a target  
25 of a non-point source pollution, but to have them

1 be a success story and wanting to work with us  
2 and further that goal.

3           And so education is really key.  
4 Farmer to farmer education is really key. We see  
5 some of our best results from farmer Ag field  
6 days and really getting the farmers out there on  
7 the field and talking about results, not  
8 necessarily being talked to, but talking amongst  
9 themselves. So we would like to see that push  
10 and see a push towards soil health because, you  
11 know, cover crops, I saw a sign over the past  
12 couple days. Cover crops equals healthy soil and  
13 clean water, and all that push towards better  
14 infiltration means reduced run off, so the cover  
15 is on the land.

16           It keeps green, no run off, but then  
17 increased soil matter which happens as a result  
18 of this cover cropping. One percent increased in  
19 organic matter is a holding capacity additional  
20 27,000 gallons of water per acre. So I think  
21 there's a lot of good through that program that  
22 we can see into the future. Thank you.

23           MR. COSGROVE: The next commentor is  
24 Jeff Tittle from the New Jersey Sierra Club.

25           MR. TITTEL: Thank you. Jeff

1 Tittel, Director of New Jersey Sierra Club and I  
2 want to thank the staff and the council members  
3 for being here and all the good work that's been  
4 done. Over the years, by the department, I've  
5 been involved in water protection issues, you  
6 know, probably since I was a kid.

7           In fact, yesterday was the 45th  
8 anniversary of the Clean Water Act going into  
9 effect and I was there in October protesting in  
10 front of the capital to help encourage the  
11 legislature at that time in Congress to overturn  
12 President's Nixon's veto and it passed 0-1 and  
13 I've been involved in Earth Day. I was involved  
14 in the clean up of the Elizabeth River in  
15 Hillside in junior high and it's still going on  
16 today.

17           Earth Day 1973, walked all the  
18 streams and rivers in and around Hillside where I  
19 was, and was the founding member of the  
20 Environmental Commission and chair, to identify  
21 point sources of pollution so that they would be  
22 reported and would have to come in to the DEP to  
23 get permitted, so I want to give you a little bit  
24 of history and I spent summers next to the  
25 reservoirs, so I have a long history.

1                   And I'm here because I think what  
2 was left out of the presentations today, and  
3 there are a lot of good people doing good work,  
4 is the regulatory scheme. That planning and  
5 regulations have to be an integral part of what  
6 the Department of Environmental Protection does  
7 when it comes to treatment water and clean water.  
8 Without it, all you're doing is some nice  
9 projects, but what happens in the end.

10                   I mean, I saw a nice presentation  
11 about the rain gardens. That's great, but we've  
12 eliminated the SWRPA. How much more water would  
13 be protected and cleaned up by keeping the SWRPA  
14 in place than having to build a rain garden to  
15 make up for the loss of that SWRPA. I've been  
16 involved with the Wallkill almost 30 years now.

17                   Four times the Wallkill River was  
18 nominated for category one stream designation  
19 because it drains into a wildlife refuge and  
20 there is a lot of (inaudible), very high quality  
21 waters. Poor times, politics and the department  
22 was rebuffed from the Governor's Office, so it's  
23 good to see that -- is doing some nice things,  
24 but the expansion of the plants and the thousands  
25 of the units that were added don't make up for

1 dealing with the cow manure.

2                   And so it really comes down to the  
3 public and politics, but also regulations, and so  
4 I'm sorry Mr. Glass left because I would have  
5 wanted to respond, to his end, about people  
6 saying when things are being too late or being  
7 critical. I was there when we did the last water  
8 supply master plan. When Dan was here and I know  
9 he was part of that and my friend, Steve Niswan,  
10 who has since retired from two jobs since then.  
11 We did a lot of good work on water in the state.

12                   I was involved very closely in  
13 getting the Highlands Act passed and the wetlands  
14 rules back in 1988 and '89, and I remember  
15 walking all the wetlands up in northern Passaic  
16 County and Bergen County and kick out under the  
17 wetlands under the Army Corp. jurisdiction to the  
18 state, flood hazard rules, expansion of category  
19 one program, water quality planning rules,  
20 stormwater rules, and on and on.

21                   And the reason I'm saying that is  
22 because, under this administration, every one of  
23 those rules has been weakened. And every  
24 weakening of those rules adds to more pollution  
25 in our waterways and more over development and

1 more building in flood zone areas and flood  
2 hazard areas. Same thing with the (inaudible)  
3 rules.

4                   When I started with Sierra Club  
5 20 years ago, 15 percent of our streams in New  
6 Jersey met all the definition of swimmable,  
7 fishable and drinkable. Now only one stream  
8 system in the entire state meets that definition  
9 and that's the Flat Brook. When I started, 40  
10 percent of our streams were impaired by  
11 phosphorus, so 65 percent. We were making  
12 progress. We are seeing progress going backwards  
13 because we're not putting in the planning and  
14 regulatory schemes that need to be done to  
15 protect the water supply.

16                   We can be doing a lot of good  
17 things, but when you take areas that are  
18 environmentally sensitive in Ocean County that  
19 were removed in 2007 and 2008 from the sewer  
20 service area and then you put most of them back  
21 in, you're going to see degrading water quality  
22 in the Barnegat Bay no matter what nice things we  
23 do.

24                   With the over development that's  
25 happening in Lakewood, we're going to see even

1 more impacts and the over ponding of the Aquifer  
2 down there discharging out to the oceans. We've  
3 seen the Musconetcong stream drop over a foot  
4 during the least decade, so we're going to see  
5 more and more than that. So the reason I'm here  
6 today for the Clean Water Council is that this  
7 administration is coming to a close.

8           You know, there was evidence of  
9 Barnegat Bay should have been impaired more than  
10 10, 15 years ago. Great reports by Mike -- even  
11 though we're suppressed, so what I'm here today  
12 to say -- I forgot to mention the roll back of  
13 the Highlands and the whole list. What I'm here  
14 to say today is for the Clean Water Council, to  
15 start planning for next year and for next  
16 administration.

17           Hopefully the administration is  
18 going to care about water quality and drinking  
19 water that's not going to disband the Drinking  
20 Water Quality Institute and not nominate a new  
21 standard for drinking water until the end of this  
22 administration. You know, also in that 10  
23 period, we have seen six reservoirs in New Jersey  
24 close because of pollution.

25           We've seen over 1200 wells close

1 because of pollution. We have 3500 portable  
2 wells in this state that are within the 12 year  
3 time of travel of repositives (ph). We have a  
4 serious water problem. We have a problem of over  
5 development, creating -- making droughts worse,  
6 and making floods worse. We have a problem with  
7 water quality because of pollution that's been  
8 historic in many areas.

9           The challenge now is to move forward  
10 to make sure we start making up for the eight  
11 years of lost time and degradation for our water  
12 supply and go back and strengthen our rules and  
13 move us forward. Thank you.

14           MR. COSGROVE: Thank you. Kristen  
15 Meistrell from New Jersey Audubon.

16           MS. MEISTRELL: Thank you. Hello,  
17 everyone. My name is Kristen Meistrell. I'm the  
18 Stewardship Project Director with New Jersey  
19 Audubon, and I'm actually very, very thankful  
20 that I'm here today to be able to talk to you  
21 about all of this and that Nathaniel and Brittany  
22 actually did their presentations earlier because  
23 it really, really flows nicely into what I want  
24 to talk about today.

25           So a little bit about New Jersey



1 Audubon. We are a state wide nonprofit  
2 conservation organization, and we have a long  
3 history of working with the agricultural  
4 community and private land owners to enhance,  
5 restore and maintain wildlife habitat. So again,  
6 I'm glad that Nathaniel touched a little bit on  
7 the Delaware River Watershed Initiative, so I  
8 don't have to get into it too much.

9               But we are a part of the Delaware  
10 River Watershed Initiative, and through that, we  
11 are working towards improving wildlife habitat on  
12 working lands through the implementation of  
13 agricultural best management practices that also  
14 happens to address water quality and health. We  
15 think this is a really, really important thing to  
16 be driving home. The importance of working with  
17 our Ag community and working with our private  
18 land owners.

19               So we're doing a lot of things like  
20 working with them to implement cover crops and no  
21 till or reduced till, working to install filter  
22 strips and install riparian buffers and then also  
23 working to restore and maintain livestock fencing  
24 and stream crossings. And so through all of this  
25 work, we've had the wonderful opportunity to

1 build trust within the agricultural community,  
2 and we build that trust by really, really  
3 listening and hearing what the Ag community has  
4 to -- some of the issues that they are facing.

5               So this has allowed us to gain a lot  
6 of feedback and really think about exactly what  
7 the obstacles are that the Ag community is  
8 facing. And really, the obstacles they are  
9 facing falls into two categories, the financial  
10 and the technical support to be able to do these  
11 practices. So the technical support is, you  
12 know, talking with the Ag producer or the land  
13 owner and discussing the importance of some of  
14 these BMPs, but also creating relationships and  
15 building partnerships where now you can have the  
16 Ag community talking to each other and Ag  
17 producers talking to each other and really  
18 creating that good community where we're all  
19 discussing different things and how you can  
20 really improve water quality through these BMPs.

21               And then the other one is really an  
22 issue that I think everyone faces, and that's the  
23 lack of financial support for a lot of this work.  
24 We really need to work on trying to make sure  
25 we're continuing to leverage the funding in

1 different resources available to try and make  
2 sure that there's enough support to be able to  
3 install or implement these BMPs; that there's  
4 enough support incentives to put these BMPs on  
5 the ground so that's specifically talking about  
6 riparian buffers and taking crop land out of  
7 production to make sure that we are protecting  
8 our waterways, making sure that there's adequate  
9 incentives to be able to do that.

10                   And most importantly, I touched on  
11 this a little bit in my question is the funding  
12 and maintenance, long term maintenance of these  
13 BMPs. So without the financial support to be  
14 able to do this, a lot of the work and the  
15 resources that we put into all of this will go  
16 down the drain. So through, you know, we've been  
17 able to have the great opportunity to work with  
18 fantastic partners in the Delaware River  
19 Watershed Initiative.

20                   We've gotten support from William  
21 Penn Foundation, National Fish and Wildlife  
22 Foundation, the USDA Natural Resources  
23 Conservation service, and now 319 funding through  
24 NJ DEP to try and offer voluntary programs to Ag  
25 producers that emphasize the importance of Ag

1 BMPs and to provide funding to implement and  
2 maintain these BMPs and also creating that  
3 platform to allow Ag producers to talk to one  
4 another and really, really discuss the benefits  
5 and the challenges of these BMPs.

6           But I really, really want to  
7 emphasize the voluntary aspect of this because if  
8 we're not providing good structure and we're not  
9 providing a voluntary program that really listens  
10 to the needs of our Ag producers and land owners,  
11 you know, especially listening to the needs that  
12 go beyond ecosystem function and really hear what  
13 kind of challenges that they're facing, by doing  
14 all of that, we can really secure the long term  
15 success of these BMPs and then start to amplify  
16 them and allow them to really, really go across  
17 the entire state and not just where a couple  
18 really great partnerships are happening and  
19 putting these projects on the ground. So I want  
20 to thank you all for your attention and for the  
21 opportunity to speak. Thank you.

22           MR. COSGROVE: The next is Gayle  
23 Smith from Montgomery Township.

24           MS. SMITH: Good afternoon. Thank  
25 you for the opportunity to talk to you today

1 about ideas for non-point source pollution  
2 reduction. My name is Gayle Smith and I am the  
3 Montgomery Township engineer. Montgomery  
4 Township, through its sewer utility, operates six  
5 waste water treatments plants all subject to  
6 separate discharge limits through the NJPDES  
7 permit for each plant.

8           The township is also a Tier A  
9 municipality subject to the municipal stormwater  
10 management program. The township supports the  
11 concept of a point non-point source pollution  
12 trading program. The township foresees  
13 escalating costs to achieve increasingly  
14 restrictive discharge limits for its point source  
15 discharges from the waste water treatment plants.

16           To most effectively reduce pollutant  
17 loads in waterways, a trading program could be a  
18 good option. Montgomery owns and operates about  
19 36 detention basins. The majority of these  
20 basins were constructed in the 1980s and 1990s  
21 before effective water quality features were part  
22 of the basin design. One possible example for a  
23 trading program would be to retrofit detention  
24 basins to improve non-point water quality instead  
25 of waste water treatment plant upgrades.

1                   Addressing point source pollution  
2 alone will not sufficiently clean up our impaired  
3 waterways. We urge NJ DEP to be open and  
4 flexible to innovative ways to reduce pollutant  
5 loads whether they be from point or non-point  
6 sources. Thank you very much.

7                   MR. COSGROVE: Jennifer Coffey from  
8 ANJEC.

9                   MS. COFFEY: Hi. Good afternoon.  
10 I'm going to officially take off my Clean Water  
11 Council Advisory tag here. Jennifer Coffey from  
12 ANJEC, the Executive Director there. The  
13 Association of New Jersey Environmental  
14 Commissions is about 49 year old organization,  
15 and our mission is to help local governments,  
16 municipalities make good decisions for the  
17 environment.

18                   In doing so, we have great partners,  
19 many of whom are in this room, including the  
20 Department, on a number of projects. We have  
21 also installed a number of rain gardens. We are  
22 partners in the Delaware River Watershed  
23 Initiative to protect and restore the Delaware  
24 River. We also have a small grants program where  
25 we provide funds to environmental commissions to

1 create rain gardens, community gardens,  
2 pollinator gardens, stream buffers.

3           That said, and hearing everything  
4 that was said here today I want to echo the  
5 comments of Jeff Tittel which he made earlier.  
6 All of the work that the nonprofits are doing and  
7 that municipalities are doing at the local level  
8 cannot possibly reverse the impairments that we  
9 have in our waterways, from pathogens and  
10 nutrients, without a strong regulatory scheme.  
11 The roll backs that we saw in the flood hazard  
12 area regulations earlier this year are abhorring  
13 when you look at the impairments that we have to  
14 water quality.

15           Eliminating the Special Water  
16 Resource Protection Area, also known as the  
17 SWRPA, allows more impairments to many of our  
18 tributaries and our main sources of drinking  
19 water. Allowing more development, closer to our  
20 streams through the flood hazard rules is also  
21 abhorrent, so it will reverse any of the good  
22 work that is being done through nonprofits, local  
23 government, corporate partnerships without those  
24 strong regulatory standards.

25           We do need, in the next

1 administration, to look at, not only going back  
2 to where the flood hazard rules were 12 months  
3 ago, but look at what's coming in 20, 30 years.  
4 We have the data. The data is strong in terms of  
5 where the flooding projections are going to take  
6 us, from sea level rise and also because of too  
7 much development in the wrong places.

8               We have a lot of impervious cover  
9 that prevents rain water from soaking in and we  
10 have rising tides, so let's look at that data and  
11 let's incorporate that into our flood hazard  
12 projections so that we keep people and businesses  
13 out of harm's way. The other thing I'd like to  
14 talk about just very briefly with the stormwater  
15 rules, as those are being talked about in the  
16 next administration.

17               We have an election in two  
18 and-a-half weeks, so there is a new  
19 administration coming, is very tight integration  
20 with the surface water quality rules. We talked  
21 about TMDLs here today, total maximum rules, we  
22 talked about NJPDES, New Jersey Pollution  
23 Discharge Elimination Permits. And as it stands  
24 right now, you can get approval for a stormwater  
25 plant at the local or at the state level if



1 you're triggering other rules, and you can allow  
2 discharge into a stream that violates standards  
3 for nutrients.

4                   That should not be possible. You  
5 should not, under the Clean Water Act, the  
6 federal Clean Water Act, and we invoked Nixon  
7 earlier, you should not be able to make water  
8 quality worse, so those rules need to be better  
9 integrated in the next administration so that you  
10 are prohibited from discharging additional  
11 nutrients into a stream that violates surface  
12 water quality standards. And in doing so, what  
13 we should require is mandatory construction of  
14 green infrastructure, or what we call as non  
15 structural measures, in the stormwater rules.

16                   So green infrastructure, we heard a  
17 lot about that today, uptakes nutrients. That  
18 standard in the stormwater rules of maximum  
19 extent practicable needs to be thrown overboard  
20 because that maximum extent practicable, when you  
21 meet most engineers, I know a lot of engineers.  
22 I know a lot of good engineers, they will say,  
23 it's not practicable to put in green  
24 infrastructure.

25                   And I say hang on, give me the white

1 out. And when you start reconfiguring the way  
2 you're developing a site or putting less  
3 impervious cover in, it is practicable. So we  
4 need to change the regulations to make sure that  
5 we're removing more nutrients, we're not  
6 discharging nutrients into streams that already  
7 violate our standards and we look at our flood  
8 hazard rules and create bigger and better buffers  
9 for what we know is going to happen for our  
10 children and our children's children. Thank you.

11 MR. COSGROVE: Thank you. Candice  
12 Perry from New Jersey Future.

13 MS. PERRY: Hi. Good afternoon. My  
14 name is Candice Perry, and I'm from New Jersey  
15 Future which is a statewide non partisan,  
16 nonprofit that engages in smart growth, policy  
17 research, technical assistance, education and  
18 advocacy for about over 30 years. Thank you so  
19 much to the council for this opportunity to  
20 testify today. New Jersey's waterways need to be  
21 protected from the negative effects of non-point  
22 source pollution.

23 My testimony will respond to three  
24 of the council's questions. First, how can a  
25 municipality stormwater program better address

1 non-point source pollution reduction. Green  
2 infrastructure. So green infrastructure is an  
3 approach to managing stormwater by enabling  
4 waters to infiltrate into the ground where it  
5 falls or by capturing that stormwater for a later  
6 reuse.

7                   Green infrastructure is an important  
8 strategy in making a non-point source pollution  
9 and improve water quality, especially in  
10 developed areas where impervious surfaces make up  
11 a large percentage of that municipality's land  
12 use. In addition to intercepting pollution from  
13 stormwater run off and returning clean water to  
14 brown water (inaudible), green infrastructure is  
15 a powerful tool that offers many other benefits  
16 including carbon sequestration, beautifying  
17 neighborhoods, aiding and traffic calming,  
18 increasing property values and cooling the air.

19                   I assist in managing a program at  
20 New Jersey Future called Main Stream Green  
21 Infrastructure which strives to make green  
22 infrastructure the first choice for stormwater  
23 management in the state of New Jersey. And we do  
24 that in a few ways. Through working with towns,  
25 working with developers, advancing demonstration

1 projects and working with state agencies. Your  
2 second question, what can the department do to  
3 ensure require non-point source reductions.

4               So after working in the Main Stream  
5 Green Infrastructure Program for about two years  
6 now, we have learned that there are important  
7 steps that the department can take in order to  
8 allow green infrastructure to reach its fullest  
9 potential in terms of communicating non-point  
10 source pollution. First, to ensure non-point  
11 source pollution reductions, the department  
12 should improve its stormwater management rules  
13 and revise the stormwater management best  
14 practices rule that accompanies the rule.

15               Specifically, the rule must do more  
16 to require the use of green infrastructure and  
17 remove the loop hole that requires developers to  
18 use non structural stormwater management  
19 strategies to maximum extent practicable and  
20 replace it with an objective standard that  
21 accounts for practices that infiltrates  
22 stormwater. This one creates the use of green  
23 infrastructure by increasing the level of  
24 predictability to developers.

25               Secondly, some municipalities craft

1 their local regulations in ways that go above and  
2 beyond department regulations. New Jersey Future  
3 recommends that the department provides clear  
4 guidance. One way that municipalities can do  
5 this, on ways that municipalities can strengthen  
6 their local stormwater management regulations  
7 which will ultimately add to the department's  
8 goal of reducing non-point source pollution and  
9 restoring clean water for New Jersey.

10           Third, the department should release  
11 its guidance for green infrastructure for the CSO  
12 long term control plan as soon as possible to  
13 allow CSO permittees to start planning, to start  
14 their planning efforts for the long term control  
15 plan. And lastly, what sources of funding be  
16 tapped for these necessary non-point source  
17 pollution reductions. New Jersey Future commends  
18 the department on the recent announcement of its  
19 water quality restoration grants for non-point  
20 source pollution program.

21           New Jersey Future recommends that  
22 the DEP continues a direct portion of its 319H  
23 monies and other funds to support communities in  
24 constructing green infrastructure projects. Even  
25 with these grants though, municipalities still

1 lack adequate funding to manage stormwater.

2 Local departments of Public Works face many

3 demands for a limited resources.

4                   A sustainable funding source to fund

5 and maintain stormwater management efforts is

6 crucial to enable municipalities to meet their

7 regulatory requirements and to achieve better

8 environmental outcomes. Stormwater fees are

9 authorized in 39 other states to raise funds to

10 upgrade and maintain stormwater infrastructure.

11 New Jersey Future expects legislation to

12 authorize stormwater fees and it should be

13 reintroduced in early 2019, if not before.

14                   We recommend that department support

15 this discussion with its technical assistants and

16 technical expertise. Again, thank you so much on

17 behalf of New Jersey Future for the opportunity

18 to testify today and happy to follow up with any

19 questions afterwards. Thanks.

20                   MR. COSGROVE: Thank you very much.

21 Peggy Gallos from the New Jersey Association of

22 Environmental Authorities.

23                   MS. GALLOS: Good afternoon. My

24 name is Peggy Gallos. I'm the Executive Director

25 of the Association of Environmental Authorities.

1 We are an organization of water and waste water  
2 public agencies and we provide services to  
3 millions of people across the state. I'm very  
4 happy to be here today at this hearing.

5               Stormwater is not a statutory  
6 responsibility of authorities, and that may be  
7 why Sussex County MUA had a little controversy  
8 about becoming involved in the project that  
9 Nathaniel referred to earlier, but AEA members  
10 have a very strong interest in participating in  
11 this important state dialogue because we want a  
12 cleaner environment and we also think addressing  
13 stormwater can help us save money and water in  
14 waste water facilities and also better protect  
15 drinking water.

16               Sussex County MUA is a wonderful  
17 example of collaboration and some AEA members, on  
18 probably a smaller scale, do a lot of informal  
19 assistance with stormwater with their  
20 municipalities, and not a revenue source for  
21 them, but just the kind of friendships that  
22 Nathaniel was talking about and collaborations  
23 that he was talking about.

24               AEA has recently been engaged in the  
25 dialogue about stormwater utilities and the

1 establishing of stormwater fees, and given that  
2 authorities have the statutory permission and the  
3 revenue, authorities can be a really important  
4 player in this whole thing. Authorities know  
5 about cleaning water, after all, and it's largely  
6 thanks to moderate sewage treatment that we have  
7 made many of the strides that we have made.

8           The department has done a great deal  
9 to focus on stormwater in the last couple of  
10 years and we commend that. We also thank the  
11 Clean Water Council for the work it's done on  
12 this which is really the next great frontier.  
13 And I'm kind of thinking about all these  
14 different approaches and different ways of going  
15 about this and different collaborations, but the  
16 bottom line is that we need to create the  
17 political will to address this problem.

18           And for our part, we're very  
19 interested and we're very eager to be part of the  
20 effort to create the political will to do this.  
21 There are many, many approaches. Authorities can  
22 play a role in that, and we also are very  
23 interested in participating in efforts to create  
24 collaborations and educate local officials and  
25 the public about the importance of this



1 particular problem.

2                   We believe that collaboration and  
3 collaborative approaches, flexibility and  
4 incentives for positive efforts are the kinds of  
5 elements that are needed in this work and we hope  
6 that we can create more momentum, build on a  
7 momentum that has been started to address  
8 non-point source pollution. We will have more  
9 detailed comments to submit later. Thank you.

10                   MR. COSGROVE: Thank you, Peggy. Is  
11 there anyone else that wishes to testify?

12                   MR. PISAURO: Thank you for this  
13 opportunity. My name is Mike Pisauero. I'm the  
14 policy director for Stony Brook-Millstone  
15 Watershed Association. I wanted to follow up  
16 with something that Jen Coffey said and Jeff  
17 Tittel about the regulations. Jen Coffey  
18 mentioned water quality standards in land use  
19 decisions.

20                   The rules already say to DEP, they  
21 should not be issuing permits to impaired waters,  
22 but to go further, I've been going for the last  
23 several years to planning boards and zoning  
24 boards hearings where they're approving  
25 stormwater plants or approving development close

1 to streams and I started talking about impaired  
2 waters. And most of those individuals sort of  
3 eyes glare over and go, there's impaired waters?  
4 I had no idea.

5                   And then when I say, well, the  
6 stormwater rules say you have to reduce TSS by  
7 80 percent, but you have an impaired water, you  
8 have to do better. There's just blank looks.  
9 The rules already say that. The Clean Water Act  
10 already says that. The linkages need to be  
11 cleaner, more enforced and the tools need to be  
12 out there. There is a municipality in my  
13 watershed who, I went to discuss, and I said,  
14 well, there's a TMDL for your waterways.

15                   Again, I now have spent the next  
16 five minutes explaining what a TMDL was and what  
17 that really meant. Again, the stormwater plan  
18 need to be better because that waterway had an  
19 83 percent or 84 percent reduction in TSS  
20 removal, but how are you going to get there if  
21 we're still doing what we've always done before.

22                   And just following the rules that  
23 don't really make those linkages clear. The  
24 other thing is we have a lot of our older  
25 communities that have been built before

1 stormwater management. The rules, as they are  
2 written, do not require any stormwater management  
3 for those older communities as they get  
4 redeveloped and they are getting redeveloped and  
5 we want to encourage them to be redeveloped.

6           But as extreme storm events are  
7 increasing, the densities have increased, the  
8 impervious surfaces upstream have increased,  
9 we're not going to see improvements in the water  
10 quality if we're not starting to address  
11 redevelopment. And to miss that opportunity just  
12 sort of forces us to be back here in the next few  
13 years going, why is this not working? So we need  
14 to require and give better tools to municipal  
15 officials to address water quality in those  
16 impairments to recognize they are there and to  
17 deal with that.

18           The rules need to be more explicit.  
19 DEP needs to do a better job, and they do a great  
20 job, but getting that information out about the  
21 TMDLs. The Raritan TMDLs proposed years ago was  
22 sent up to EPA up in 2014, approved last year,  
23 but yet, most municipalities don't know it exists  
24 and what it really means, so those tools and that  
25 training needs and that education needs to get

1 out there.

2                   And you know, not only should our  
3 stormwater rules be better in impaired waters but  
4 maybe we need to enhance those stream buffers,  
5 those transition areas, maybe transition areas  
6 doesn't make sense to a wetland adjacent to an  
7 impaired water, maybe allowing and encouraging  
8 into the riparian zone along a stream that's  
9 impaired doesn't make sense, so we need to  
10 integrate that better. We will be submitting  
11 more detailed comments, but I'd like to thank the  
12 council for this opportunity. Thank you.

13                   MR. COSGROVE: Thank you. Anybody  
14 else? Okay. I just wanted to put this up. If  
15 any of you, especially those of you who spoke, if  
16 you want to submit written comments or you think  
17 of other things after today, we're accepting  
18 comments until October 31st, so there's the  
19 address, fax number, email address. Please send  
20 your comments electronically in Word format, if  
21 possible. Thank you very much for coming today  
22 and I'll close the hearing at this point.

23                   (Hearing Concluded at 3:16 p.m.)

24

25

## C E R T I F I C A T E

I, LAUREN ETIER, a Certified Court Reporter, License No. XI 02211, and Notary Public of the State of New Jersey, that the foregoing is a true and accurate transcript of the testimony as taken stenographically by and before me at the time, place and on the date hereinbefore set forth.

I DO FURTHER CERTIFY that I am neither a relative nor employee nor attorney nor council of any of the parties to this action, and that I am neither a relative nor employee of such attorney or council, and that I am not financially interested in the action.

*Lauren M. Etier*



Notary Public of the State of New Jersey

My Commission Expires June 14, 2018

Dated: November 3, 2017

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