
Panel Meeting

of

ASSEMBLY STATEWIDE FLOODING LEGISLATIVE PANEL

"Testimony concerning flood mitigation and response from the United States Army Corps of Engineers, the New Jersey Association for Floodplain Management, the New Jersey State League of Municipalities, distinguished experts from the academic community, other invited guests, and the public"

LOCATION: Council Chambers
Lodi Municipal Building
One Memorial Drive
Lodi, New Jersey

DATE: October 10, 2007
6:00 p.m.

MEMBERS OF PANEL PRESENT:

Assemblyman Robert M. Gordon, Vice Chair
Assemblyman John E. Rooney



ALSO PRESENT:

Philip R. Gennace
Office of Legislative Services
Panel Aide

Kate McDonnell
Assembly Majority
Panel Aide

Thea M. Sheridan
Christopher Hughes
Assembly Republican
Panel Aides

Meeting Recorded and Transcribed by
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ASSEMBLYMAN ROBERT M. GORDON (Vice Chair):

Ladies and gentlemen, I'd like to bring this hearing to order.

Let's begin by rising and saluting the flag.

(participants recite the Pledge of Allegiance)

ASSEMBLYMAN GORDON: Good evening, everyone, and welcome to the second hearing of a special Assembly statewide Panel on Flooding. Shortly after the floods of last April, the Assembly established a Committee to hold hearings around the state for the purpose of learning lessons from flooding events we've experienced, to learn how we can better prepare for floods and respond to them; then to, most importantly, try to identify long-term solutions to the flooding problem and to identify any problems in the bureaucracy. Are there problems in the way the State responds to these events that need to be addressed?

We began with a hearing in Burlington County, in Evesham. This, as I said, is our second hearing. The Committee consists of Assemblyman Fran Bodine of Burlington County, who is the Chair. Assemblyman Bodine is not able to join us this evening and so I'll be chairing the Committee. I am Assemblyman Bob Gordon. I represent District 38, which includes this community of Lodi, as well as 12 other communities in central Bergen County. Also, members of the Committee also include Assemblyman Dave Russo and Assemblyman Pete Biondi. And I'm told that Assemblyman Biondi will be not able to make it tonight and his replacement will be Assemblyman John Rooney of Bergen County. And I believe Assemblyman Russo is expected.

For members of the public wishing to testify or make a statement, there are slips of paper that you can find on a table outside this hearing room. Is that right?

MR. GENNACE (Panel Aide): In the hallway, right.

ASSEMBLYMAN GORDON: In the hallway. We ask that you fill them out and bring them up to the front, and you will be called, in turn, to make a statement.

Since our host this evening is the Borough of Lodi, I would like to invite the Mayor of Lodi, Karen Viscana, to come forward and make a statement on behalf of the League of Municipalities.

Mayor.

MAYOR KAREN VISCANA: Good evening.

The first statement I'd like to read is from the League of Municipalities, who are not available tonight but they asked me to read this into the minutes.

The New Jersey State League of Municipalities is a voluntary association created to help communities do a better job of self-government through pooling information resources and brain power. It is authorized by State statute, and since 1915 has been serving local officials throughout the Garden State. All 566 municipalities are members of the League. Over 13,000 elected and appointed officials of member municipalities are entitled to all the services and privileges of the League.

The highlight of the League's activities is the Annual Conference held each November, in Atlantic City. The conference is an invaluable learning experience which yields benefits throughout the year.

Delegates have the opportunity to learn and ask questions at more than 100 panels, clinics, and workshops.

Flooding is a crisis in many of our communities, and the League has been an advocate in helping municipalities with this most difficult threat. This year's conference will feature a session titled "Flood Mitigation Resources to Protect Your Town," on Wednesday, November 14, 2007, at 2:00 in Room 408/409. The League understands that the future will bring more devastating flood events and that we play a role in helping communities prepare.

The League is acutely aware of the municipal hardship in addressing natural hazards. A municipal tax base is overwhelmed when large-scale mitigation projects are considered, whether the projects include levees, flood proofing, or elevations of structures. The League knows that it is most important to take advantage of the Federal mitigation funds. For the FEMA program, the State of New Jersey is the applicant and the municipality is the sub-applicant. The communities depend on teaming with the New Jersey Office of Emergency Management. The State will need a strong mitigation unit within the State Police to support the municipal effort of applying for and implementing mitigation projects.

As the League's President, David M. DeVecchio, testified to before the Assembly Appropriations and Senate Budget Committees in March of this year, natural disasters are overwhelming to communities. Communities lack the resources to absorb losses with (*sic*) external aid.

The New Jersey Legislature needs to establish a dedicated source for flood planning and mitigation funding. Flood mitigation should be ongoing and consistent. The New Jersey Governor's Flood Mitigation

Task Force stated that, “in order to assist communities ... the State and local leadership must work with the Legislature to develop a dedicated funding source to assist local governments in funding local shares of the mitigation grants.”

The League is in support of using Transfer of Development Rights for flood-prone lands. TDRs can support growth while keeping new development out of harm’s way. The League recognizes that flood victims often have difficulty with where to get accurate information or what needs to be done after the flood. The Governor’s Flood Mitigation Task Force recommended creating a flood committee, and we are in support of that concept.

In conclusion, the League wishes to see greater coordination between the State and local governments in addressing flood problems. That was from the State. Now I have my own that I would like to share: Over the years, the Borough of Lodi has had more than its share of floods. The Borough straddles the Saddle River. For most of its journey through Lodi, the river flows right next to Main Street, figuratively dividing the town in two sections most of the time, but literally dividing the town in two during times of flood.

Unfortunately, these floods seem to be occurring with more frequency, causing greater and greater damage. Each time it occurs, we can only sit back in frustration -- as our citizens are displaced, their homes are destroyed, their valuables and their memories swept away in raging currents -- until it’s time to rebuild again.

Over the years, the people and government of the Borough of Lodi have been seeking help with this problem from many resources,

Federal and State. Unfortunately, attempts have been met with roadblock after roadblock or empty promises.

Last June, our entire council, Borough Administrator, and the Mayor of Saddle Brook went to Washington to meet with our local legislators and representatives from the Army Corps of Engineers in an attempt to seek Federal help with our problem. We walked away from that meeting in despair, full of frustration after being told that our flooding problem was, essentially, a zero priority in Washington, since the bulk of their resources were looking to the Gulf Coast.

While we have applied for Federal mitigation grants through FEMA, we have been prewarned that the amount of available grant moneys well exceeds (*sic*) the grant requests that were expected.

This pattern of frustration and despair must stop. To this end, we have formed a coalition of mayors with our neighboring municipalities to demand the attention of Federal and State officials. The time for empty promises, pleas for patience, and for begging for help is over. We are now demanding the appropriate help. We will not settle for rhetoric. We don't need more studies, we need action.

Thank you. (applause)

ASSEMBLYMAN GORDON: Thank you, Mayor.

If I could just add a comment. One of the objectives of these hearings I hope will be to cast more light on the issue of flood control. There has been a lot of discussion about the need for infrastructure investment, particularly in the wake of the bridge disaster in Minnesota. We talk about rebuilding our roads and bridges. I think we also need to view flood control as a major infrastructure priority. If the Governor does

move forward with *asset monetization*, as he calls it, a method of drawing of funds from our assets for capital investment, I hope some of those funds can be invested in flood control. And I think that the comments that the Mayor made about the need to find some homegrown source of funding for disaster recovery is a very important one. I don't think we can rely on FEMA, given their history of slow response. I think we need some source of our own so that we can help our communities rebuild.

I understand that Assemblyman Rooney is on his way. I was going to wait before making this statement, but I think I will go ahead. I would just like to make a brief introductory statement, and then we will return to the witness list. So if you'll indulge me.

Good evening, ladies and gentlemen. As we know, flooding devastates families, causes immeasurable losses to businesses, and disrupts whole communities across our state. In my own district here in Bergen County, communities such as Lodi, Little Ferry, Saddle Brook, Hasbrouck Heights, Elmwood Park, and Paramus incur millions of dollars in damages when flood waters rise on the Saddle Brook, Hackensack, and Passaic Rivers.

One of the my friends, a resident of Hasbrouck Heights, saw his home completely destroyed when the rainstorms of last Spring caused a mud slide. His losses were not covered by his insurance, and as he put it, "I have to start my life over." The same story can be told by countless residents along the Rancocas, the Delaware, and the Raritan. And unless we do something about climate change and land use, the problem may well get worse in New Jersey.

All too often we try to solve the flooding problem at the local level with the channelization project in Town *A* or a new dam built in Town *B*. In fact, the flooding problem is a regional, if not global, problem calling for regional solutions. And I want to commend Assemblyman Bodine for recognizing the scale of the problem by sponsoring the legislation that established this Panel.

For those of us who've worked in the field of emergency management, we know that there are four interrelated aspects of managing disasters, which I believe are relevant here. The first, mitigation: the steps that can be taken to lessen the severity of an event. Second, preparedness: actions that can be taken to improve the response capabilities of a community, such as training and the use of public alerting systems. Third, response: activities that include the direction and control of emergency responders and evacuation of the public. And fourth, recovery: efforts undertaken in the immediate aftermath of an event and long-term, which restore the community to its normal or even improved state.

I would suggest to this Committee that this framework may be useful in addressing the flooding problem. In using this framework, several questions come to mind. First, what can the State do to lessen the impact of flooding? Do we need to rethink our controls over land use, for example? How can we better prepare for flood emergencies? Do we need to improve our training programs or evacuation planning? Should we consider a statewide public alerting system using one of the emerging communication technologies? Do we need to improve our early warning system? As we will learn tonight, we've just allowed the funding for a system of flood gauges to lapse. Do we need to do a better job of coordinating the many agencies

that respond to a large-scale event? And finally, how can we improve the recovery process? Should we rely on the FEMA bureaucracy for reimbursement of costs, or should we consider our own self-funded catastrophic insurance program?

These are some of the questions I hope we will address during the course of these hearings, and I look forward to learning from our witnesses and from our colleagues about them. I'm honored to be part of this effort.

And with that statement, I will move on to the witness list. And I will-- I saw Mayor D'Arminio of Saddle Brook. Mayor, would you like to make a comment?

Before we begin, Mayor, I'd just like to welcome Assemblyman John Rooney, from Bergen County.

ASSEMBLYMAN ROONEY: How are you?

MAYOR LOUIS V. D'ARMINIO: Mr. Rooney.

ASSEMBLYMAN ROONEY: This is a familiar face.

MAYOR D'ARMINIO: Chairman, thank you for having this meeting here in Lodi tonight, and I commend you for taking charge of the flooding issue -- that is affecting not only Bergen County, but throughout the state -- in your position as an Assemblyman, and your Committee. But I can tell you that the frustration is great. I don't have to tell you actually. I mean, we hear it from the people. We're tired of the studies. I did go to Washington with the Lodi contingent and heard firsthand from the Army Corps of Engineers that's there no money in the budget for last year, this year, and the following years. I also had the pleasure of hosting the Secretary of the Army Corps of Engineers in our town, J. P. Woodley, who

also said that this is going to be left to another administration before we mitigate the river of Saddle River.

Well, I can tell you that the people in my Township of Saddle Brook are very frustrated. We don't want to hear about the Army Corps of Engineers needing another million dollars for a study that we already know what needs to be done. Studies aren't going to help us, but we need the action. And you have the DEP and the Army Corps of Engineers going this way. Nobody knows what they're doing, quite frankly. And this isn't a Democrat or Republican issue, this is a humanitarian issue. I see firsthand, as a mayor -- and you have seen yourself as an Assemblyman -- walking these communities, the devastation that we have to see every day. This is going on since Hurricane Floyd, 1999. I mean, enough is enough. I know government works slow, but this is entirely too slow for my blood, and I'm a mayor. And I'm not happy about this.

I think that there's more action that can be done. The Governor put away \$35 million for gang prevention. That's a wonderful thing. Being a former police officer, that's wonderful, but when does flooding and the people's homes become a priority? Take a million dollars and put it in -- that the Army Corps of Engineers needs of the DEP for the river.

The time has come, Assemblymen, that we really need your help, we need the Governor's help, and we need the Army Corps of Engineers' help to do this. The townships can't do it. If I could have my DPW dredge that river, I'd be there with a bulldozer myself doing it. But it can't happen, because I can't touch this because of the contaminants in the river. Well, tell me how to fix that or help me do it, and we'll be glad to get

it done. Until that happens, they're telling us that nothing can be done, and that's very discouraging to us.

I do think that we need to have this voice at these meetings and rattle the cage down in Trenton. The Governor's got to do something here with regard to this. And the Army Corps of Engineers -- this is a team. We're doing all the pitching, but nobody's hitting the ball. Everybody is missing the point. So I know I've vented for my community. I know there are others here that are going to be venting for their community.

And I can remember 1967. I lived up here at what they called the Focci (phonetic spelling) Apartments, right here in Lodi, when they had a flood in 1967, and I had to take a boat -- and I lived up in the upstairs apartment, thank goodness, at that point in time -- to get out of here. Now I'm experiencing it again in Saddle Brook. Every time it rains, we have the same situation -- and that's going back to the '60s.

So I hope that something comes out of this -- that our voices are heard and that this isn't a dog-and-pony show, but something that's going to be productive and helpful to the people of our communities. We need the help. This is a team effort. Not any one individual can do this. We have to team up and do it together.

Thank you. (applause)

ASSEMBLYMAN GORDON: Thank you, Mayor.

And Mayor, I would simply comment that I think your points are very well taken, and I am certainly going to do everything I can with legislative leadership and with the Governor's Office to make this flood control a priority.

Assemblyman Rooney, any comments or questions?

ASSEMBLYMAN ROONEY: Yes.

I apologize for being late. Somehow I missed the turn twice. And when you miss a turn in Lodi, you wind up in Saddle Brook or wherever. And I've been here before -- that's what really makes it irksome. So I had to come because this is one of my pet issues. It's not restricted to any particular area in New Jersey or any district in New Jersey. We all have problems.

I've been here with the Corps of Engineers many, many times in the past. Not particularly here, but in my own hometown of Northvale, who I know -- the same things. We took people out on rowboats out of our industrial area up on the northern end of town. We have the Sparkhill Brook, and it's a unique situation, because it comes from New York. And one of our biggest problems has been getting a bistate agreement to do something about the Sparkhill Brook. It floods into Northvale. But all the problems and all the solutions are in Rockland County, in New York. So we've had these meetings before. If you go on the Web site, look up Sparkhill Brook. There's been a preliminary study by the Corps of Engineers. The problem with the Corps of Engineers -- they'll tell you, number one problem, they don't have any money. And that's the major problem that we've got to get-- We've got to get our Federal legislators to get money into the Corps of Engineers to do these projects.

Another problem that we've had is the Pascack Brook in northern Bergen County, coming again from New York into the Pascack Valley. It's a problem that we're all seeing. And we're our own worst enemy. Senator Cardinale and I had a bill in, and it was passed into law back in the '80s. That allowed us to go in and do some desilting,

desnagging of the brooks through the Bergen County DPW. All you had to do was get-- In fact, to give you a good example: In 1983, I kept saying, look, we've got to get some of this flooding problem resolved. And our engineer said, "Well, you know, if we cleaned, desilted, and desnagged the brook, then it would probably solve about 80 percent of it." And I said, okay, let's do it. He said, "Oh, it will take you three years for a permit through the DEP." "Well, let's start. If we don't start now and do the three years, were not going to get it done." Actually, I take that back -- it was 1980. In '83, we got the permit.

We had the Bergen County, basically the Mosquito Commission, come and desilt, desnag. It was like somebody took the plug out of the bathtub. It drained like you wouldn't believe. It resolved a lot of those problems. And what Senator Cardinale and I did was go to the DEP, go to the Legislature -- we said, "We need to have a streamlined process" -- streamlined being -- pun intended -- "to get these permits faster," not three years. Now, it should have taken six weeks. It was a great legislation. Then all of a sudden, they switched it in the '90s. They changed it and made it more difficult. And again, it's all the environmentalists getting into it. I'm an environmentalist. I'm on the Environmental Committee. I've been endorsed by every environmental group in the state forever, but my first priority is people. People and their ability to live in comfort and without having water come in and wash them away on a regular basis.

The bill is now changed. We've been trying to get it changed back to the original form. And this is something that I would-- You know, Assemblyman Gordon knows -- I've made this speech several times in many, many venues. We've got to get back to the practice of allowing the

municipalities to get a quick permit. To go in, get the Mosquito Commission to come in, desilt, desnag, and maybe go a little bit further. I don't quite agree that you can only go down 18 inches or the width. There's a current bill in -- Senator Cardinale is the sponsor in the Senate, I'm the sponsor in the Assembly. We've to get that done. It's a first step. We've got to work together. We've got to get the water companies, we've got to get all--

And one of my major problems, looking at the Sparkhill, is when they built the Palisades Interstate Parkway they actually had the culverts in the wrong position. So now when the water comes through on the brook, it doesn't go under the culvert. It goes smack into the culvert and it backs up, and it floods into Northvale.

So I've lived with these problems. I feel your pain; I've had the same pain. We've got to do something. And I'm frustrated. I'm trying to figure out-- The one thing we've got to do is get the stream cleaning permits and get them streamlined, and be able to do them quickly. We've got to get further than that.

If you have a contaminant problem, Lou, I think that's a separate issue. If he may respond, I have no problem.

MAYOR D'ARMINIO: If I may? When I talk about the contaminants, I'm talking about the Saddle River, because that's with the DEP. And I think there's representatives from the DEP here.

ASSEMBLYMAN ROONEY: Hopefully.

MAYOR D'ARMINIO: Just what you're talking about -- and I don't know where they are, I met them earlier -- but we're waiting, as we

speaking, for a permit to do the culverts that we have in Saddle Brook. It's ridiculous.

ASSEMBLYMAN ROONEY: Right. It is.

MAYOR D'ARMINIO: I can't touch it. I mean, we've been waiting there now for I don't know how many months, Assemblyman -- that we were down there to speak to the Commissioner.

ASSEMBLYMAN GORDON: I think at least three.

ASSEMBLYMAN ROONEY: Yes. And this is déjà vu all over again, because we had this meeting.

MAYOR D'ARMINIO: Yes, but it's nonsense.

ASSEMBLYMAN ROONEY: Yes.

MAYOR D'ARMINIO: And again, it's frustrating for us. Because I have the county who is going to come in and do the culverts--

ASSEMBLYMAN ROONEY: Yes, for free.

MAYOR D'ARMINIO: --for nothing. Well, with county money; but whatever the case may be, but they're going to do it. And we're being delayed until another storm event happens for a DEP permit. It's ridiculous.

ASSEMBLYMAN ROONEY: And it's not only one permit. It's actually -- they ask you to do one permit for every 500 feet. You have to do a study. Your engineer has to do a study for every 500 feet. That's the new rules. This was not in the law that we passed in the '80s. They stuck this in. They stuck it in by a slight change in the legislation, and then rule changes. And I've been trying to get that rule changed for quite a while.

MAYOR D'ARMINIO: But you know, we are the *they*.

ASSEMBLYMAN ROONEY: Yes.

MAYOR D'ARMINIO: We are they, and it's up to us -- the mayors, the Assemblymen, the State Senators, and our U.S. Senators -- to work together to get this stuff done. I mean, it's ridiculous the permitting process we have to go through.

ASSEMBLYMAN GORDON: That's certainly one of the objectives of this hearing, is to just highlight these procedural problems that Assemblyman Rooney has been dealing with for many years and we were talking about at our last hearing. So I'm hoping that the DEP -- there are representatives here -- will be able to address some of those issues, and--

MAYOR D'ARMINIO: I hope they put this on the top of their priority list -- not to interrupt you, Assemblyman.

ASSEMBLYMAN GORDON: --take these concerns back to the Commissioner's office.

I do want to move the meeting along.

Thank you, Mayor, for your comments.

ASSEMBLYMAN ROONEY: I think I've said enough.

ASSEMBLYMAN GORDON: Okay.

ASSEMBLYMAN ROONEY: For now.

ASSEMBLYMAN GORDON: I believe that Mayor Mola, from Elmwood Park, is here.

Mayor, would you like to come forward.

And for all of those testifying, if you wouldn't mind, please identify yourselves by name and organization. And again, for those of you who may have just arrived, if you wish to speak: If you would go to the

table in the hall and fill out a slip and just present it to us up here on the dais, we'll make sure that you get a chance to testify.

Mayor Mola, welcome.

MAYOR RICHARD A. MOLA: Thank you, Assemblyman and members of the Committee.

First of all, I lived in Lodi much of my life. I know the problem. I used to go swimming in the Saddle River many, many years ago when I was a kid. So I know the flooding problem in Lodi, and I have no disagreements with what the mayor of Saddle Brook has indicated, and it's got to be done.

My concern in Elmwood Park is Fleischer Brook, which is a an offshoot of Saddle River. And we've been working on Fleischer Brook since I've been mayor in 1972. There are nine culverts in Fleischer Brook. We've got eight completed. One is ready to go; we're just waiting for financing from the County of Bergen. And when that's done, we'll have all new culverts put in.

The major blockage that we have is in Garfield. It's on a border between Garfield and Elmwood Park. And I think I had an arrangement to meet with you, and then you had some good news coming in and we had to call that off.

ASSEMBLYMAN GORDON: And we are going to reschedule that meeting.

MAYOR MOLA: I would appreciate that.

That is a major problem, because that's the exit of Fleischer Brook from Elmwood Park. And then you go into what is called the *Lanzar Avenue diversion*, which is a nine-foot diameter pipe that goes into the

Passaic River. If we can get that cleaned out and we can get some kind of a track through there with barriers so that the water stays there, we'll be in much better shape because the water will flow much more quickly from Elmwood Park into that diversion. Now, that is eminently important because Saddle Brook and Fair Lawn are planning to do something with their problem and have it come into Elmwood Park into the brook. And needless to say, Elmwood Park is not going to allow more water coming in unless we can resolve our problem.

So I would appreciate -- and I wrote you a letter, Assemblyman Gordon, indicating we would appreciate any kind of financial help to do the project with Garfield, and Garfield is 100 percent aboard on this issue. See, if we can get equipment from the County of Bergen -- and as a former freeholder, I'm very disappointed that I've been told by the county they don't have any equipment to do this. They used to come in; they used to dredge the brook, they used to clean the brook. Now I'm told they don't have any equipment, but it's on order. Well, we'll see where that goes.

This is not new. When I became mayor in 1972, I went down to Washington also. I spoke to Senator Harrison Williams. Money was coming imminently. I'm still waiting. So it's a long-range project, but it's got to be done now, and I would appreciate that.

We had a moratorium on building in Elmwood Park. I think we had it for about eight or nine years, and then we were told, "No, you can't keep people from building in your town because of a flooding issue." And needless to say, with the building boom we have now, we're getting more water than ever before. So it is a problem for all of us.

I hope we're speaking to a group that will go down and see the Governor. We can find money for everything else, but this is not going away. The more we build in Bergen County -- and that's a truism -- the more we build in Bergen County, the more water we're getting. The more trees we cut down in Bergen County, the more water we're getting. So I beseech you, on behalf of all the communities that are here, to work with us, provide some relief for us. It's not going to go away. It's only going to get worse, and the people in all our communities are suffering tremendously.

So thank you very much. I know you have other speakers, and I appreciate your calling.

ASSEMBLYMAN GORDON: Thank you.

MAYOR MOLA: Thank you. (applause)

ASSEMBLYMAN GORDON: Assemblyman Rooney.

ASSEMBLYMAN ROONEY: Yes.

You brought out one point that I want to emphasize, and I want to emphasize it for the DEP and also for the county, as well as the State. The problem that we get into is that if you clear upstream and you allow the water to flow through your community, it's going to dump on somebody. What we have to look at -- this is something I got into with Rockland County when they did their flood plan. And when we looked at it, they were actually doing all the upstream instead of doing the downstream first. What you should be doing is doing downstream. That particular-- Sparkhill Brook empties into the Hudson River. If you work from the Hudson River up and then start clearing, it's a lot easier on the communities in between. And you make one hell of a point in saying that

you're going to get all this water. There has to be some coordination by the county, the DEP, and the State to say that this doesn't make sense. If they're going to clean their brooks and dump water onto the next community, that's totally unacceptable. We need to start at the bottom and work our way up. So I want that emphasized to DEP and to the State, and to also the county officials when they start looking at the stream clearance. And I didn't know that they didn't have the equipment. I just knew that we couldn't get the stupid permits from DEP.

MAYOR MOLA: As far as I know, the county does not have the equipment. I hope they've ordered it.

And I'd just like to make one other point: The City of Garfield had an Abbott school built right alongside the brook in Garfield. I went there while they were constructing the building. I asked the county if they could look at that, maybe we can clear that portion of the brook before the school was built. It fell on deaf ears. The school is built. You can walk into the school, it's barrier-free. If that culvert on Kipp Avenue overflows, it's going into the school -- right into the school. And I just couldn't believe that they would do that without taking some precaution or cleaning that portion of the brook out.

I know the administrator from Garfield was here, Tom Duch, and I think he will confirm everything that I've said about this portion of the brook and will indicate that he's onboard with this.

Thank you. Thank you very much.

ASSEMBLYMAN ROONEY: Thank you, Dick.

ASSEMBLYMAN GORDON: Thank you, Mayor.

I see that Deputy Mayor Etlar of Fair Lawn is here.

Deputy Mayor.

DEPUTY MAYOR MARTIN ETLER: Good morning.

ASSEMBLYMAN GORDON: Again, could everyone identify themselves for the benefit of the record.

DEPUTY MAYOR ETLER: My name is Marty Etlar. I'm Deputy Mayor of Fair Lawn.

And I just want to echo what the mayors of Saddle Brook and Elmwood Park have said. I came here primarily to talk about what Fleischer Brook is. Fleischer Brook emanates in Fair Lawn, winds its way through Saddle Brook, Elmwood Park, Garfield and empties out into the Passaic River. And I can tell you that all of us know what the problem is. Now, the brook has to be dredged and cleaned out, and that will suffice to take care of all the drainage surface water that comes through our four towns.

Now, I can remember talking to the DEP about three or four years ago -- they came down special to see it -- and the guy that they sent down gave me a whole list of things that the Borough would have to do, because we've got contamination in there. And he said the permit would take a long time to do. And I'm not going to repeat it, but the problem is that you don't have everybody working on the same page. When you talk about preparedness, that's good, but what we need now is action. Not to say that this guy is out of money, because I don't even want to hear that anymore. I mean, we can find money for everything else. But people are just up to here (indicating) about the flooding situation. And I can tell you that I've lived around here for over 55, maybe 60 years. And Fair Lawn is kind of unique, because we've got Saddle River on one side, the Passaic

River on the other side, and we're cut by a lot of culverts and streams to take the water out and dump that into the Passaic River. But I could tell you that -- I could talk about 100-year floods. I can remember being out there on the boats on the Passaic River, right in Fair Lawn, when you couldn't even move out there, right along the Passaic River side there. So I know flooding when I see it.

All I'm asking this Panel to do is to send the message back to Trenton that we need action and we need it now -- period. (applause)

ASSEMBLYMAN GORDON: Thank you, Mayor.

I'm going to continue asking for representatives of local governments to speak, and then I'd actually like to hear from the DEP in response.

I see that Tom Duch, former Assemblyman, and now the manager in the City of Garfield, is here.

Tom, would you like to make a statement.

T H O M A S J. D U C H: Good evening, Mr. Chairman and members of the Assembly Committee. My name is Thomas Duch. I'm the City Manager of the City of Garfield.

I come to speak to you this evening with a long record of personal public service and knowing the enormous task that is before you. I'd like to first begin by thanking you on behalf of the Mayor, and Council, and people of the City of Garfield for convening this hearing. We are pleased that the Legislature has taken note and has reached out by having this hearing locally where flooding has impacted so many of us.

The City of Garfield is uniquely situated at the confluence of the Saddle River and the Passaic River. This is the oldest settled portion of

the our city. It is also the area that is most prone to flooding. Any work on the Saddle River that takes place upstream -- and Assemblyman Rooney mentioned this, and that could be dredging, deepening, widening -- must take into account where the water will wind up. It will wind up at the bottom. It will wind up at the confluence of the Saddle River and the Passaic River. Please keep that in mind as you review and devise plans to eliminate the flooding in all of our sister cities. We absolutely support their efforts and all of the comments that they made here this evening.

The flooding problem is something that is maybe resolvable with some common sense. We actually -- at the border of South Hackensack and the City of Garfield, there is a bridge. The bridge was named after former Mayor James Anzevino many years ago. The bridge has an abutment in the center. The Saddle River flows down through Lodi, and it flows right up against this bridge. And the debris gathers against the abutment -- the bridge is low. The bridge, if it were raised, if there were no abutment in the middle, the items would be able to flow -- the debris would be able to flow right through, right into the Passaic River. Maybe that's not the best solution, but it might be a practical solution.

We try to help out. Whenever we know that there's a flood coming or that the rains are going to be severe, we call in DPW workers and we actually put a backhoe on that bridge. And as the debris rises, we take that backhoe and we pull the debris out of the water as long as we can, until the water comes over the bridge and we have to move our equipment and our personnel off the bridge. So that's just kind of a simple thing, but it's something that may be possible, that would at least open up the Saddle River at the bottom.

I noticed in the crowd there's a lady -- and she's not going to be happy that I'm mentioning her, but -- her name is Dorothy O'Haire. She is a lady who is very active in flood control in the Passaic County area. She has worked very extensively with Congressman Pascrell. And in fact, they have a little bit of a success story in Little Falls. I noticed that she handed in her form so that she could testify, so I'm going to let her tell you a little bit about her successes. But one of the comments that was made earlier was reaching out to our Federal legislators. We know that the State of New Jersey can't do it alone. We certainly know that in the face of the current budget problems it would be impossible for the State of New Jersey to do it alone. But maybe with the help of our Federal legislators and maybe with a very aggressive, community-minded approach, such as that that Mrs. O'Haire has led in the Township of Little Falls, we might be successful.

For my part and for the City of Garfield's part, we are supportive of the Assembly's efforts. We're thankful that you've come out here this evening. We're happy that you've given us the opportunity to speak, but we do need some action. We're prepared to do our part locally. I gave you just a small example of what we would do, but we certainly need the State's help and we certainly need the Federal Government's help. If there is a hearing like this in the future that would include Federal legislators, I'm sure that you would get a delegation of mayors and council people from all of the towns in this area to attend such a gathering.

So, once again, I'd like to thank you for your time and for your patience in hearing us this evening.

Thank you. (applause)

ASSEMBLYMAN GORDON: Thank you very much, Mr. Duch.

Before I turn to the DEP, are there any other elected officials that would like to make a statement? (no response)

Well, seeing none, John Hazen of the Department of the Environmental Protection.

John, would you like to make some comments in response to some of the things you've heard.

J O H N H A Z E N: Thank you, Assemblyman Gordon.

With me is Charles Defendorf, from our Engineering and Construction area.

ASSEMBLYMAN GORDON: I think maybe you want to grab that microphone over there. The smaller mikes are for the benefit of the those transcribing the hearing.

MR. HAZEN: Oh, okay. All right.

I wanted to thank you--

ASSEMBLYMAN GORDON: And John, could you just identify yourself for the record?

MR. HAZEN: Okay.

I'm John Hazen. I'm Director of Legislative Affairs for the Department of Environmental Protection. With me is Charles Defendorf. He's from our Engineering and Construction area.

I first off want to thank you, Assemblyman Gordon and Assemblyman Rooney. I've known both of you for years and your work on the Environment Committee, as well as Assemblyman Bodine, the Chair of the Committee. I appreciate this opportunity to come before you.

I guess one of the things that--

ASSEMBLYMAN GORDON: John, you need to speak a little more closely to the microphone.

ASSEMBLYMAN ROONEY: Get closer to the microphone.

MR. HAZEN: Okay.

I guess one of the things that I'm up here for is to take the beating. But I also wanted to just kind of point out a few things that are going on. First off, at the hearing down in Burlington County, you were especially adamant about the need for streamline processes in stream cleaning. You've really hammered it home to me that we need to do-- So I went back to the Department and I spoke with our folks, and they said, "Well, we do, you know, allow stream cleaning without permits of certain things." I said, okay, well, give me the guidelines. Well, they said, "Well, you know, we work with individual municipalities." And I said, well, give me the guidelines. And the one thing that came out of it is we do have some guidelines now, which I will share with the Committee. I will e-mail it to you, and you can share it with all your municipalities on the ways that they can do it.

Now, one of the problems is we do allow -- no permit, if you're going to be taking out by hand. But how much can you do? Or if you're doing machine, the issue is kind of getting to the stream and the disturbance to the wetlands that may occur. But I think what the main message I have is, we do sit down with municipalities. We are sitting with the Burlington County communities that were hard hit by the 2004 and 2006 floods to come up with a streamline process, and I'm here to offer that to all the municipalities up here. Now, the one thing I'm hearing is

that there has been numerous meetings and things aren't happening. And one of my jobs is to bring that message back to the Commissioner and say, "There's something broken. We need to sit down and we need to work on it."

So one of the main things I want to do today is listen, is talk with the local officials and kind of get their frustration and say, "Okay, well, let's go from here." We're going to be hearing from a lot of other folks -- the Army Corps and various other agencies -- about the various things. I won't get into that. I just am here to say that we are committed to working with you. We do appreciate that this Panel was put together, and I think it's an excellent thing. Be willing to discuss--

ASSEMBLYMAN GORDON: Thank you, John.

I, for one, perhaps because I have a little more patience than some of the mayors who've been at this a lot longer than I have, I'm prepared to see what kind of reforms you're willing to put into place. But I would think that I speak for a number of my colleagues that, if we don't see some kind of improvement in the process, that we may feel the need to respond legislatively. You know, an application will be acted on within X number of days; and if there is no response, one assumes that the community is empowered to go ahead and undertake the channelization project, or something along those lines. But I think we're prepared to respond legislatively if we don't see some operational improvements or policy changes at the Department.

MR. HAZEN: And we definitely hear that.

ASSEMBLYMAN ROONEY: Mr. Chairman?

ASSEMBLYMAN GORDON: Assemblyman.

ASSEMBLYMAN ROONEY: John, I appreciate what DEP has done. And one thing I have to say is, you've come to every meeting that I've ever asked of you. That's been fine. I guess it's Rick Reilly, in that particular section in the DEP, who deals with storm water management flooding? And he was--

MR. HAZEN: He handles the northern part of the state.

ASSEMBLYMAN ROONEY: Okay. Well, he's the one that I've been in contact with. We had a meeting recently. It was up in Hillsdale, involving the Pascack Brook and the problems that we've had, and this goes back years. Hurricane Floyd was the worst example. I mean, this thing overflowed it's maximum by something like 20-some-odd feet in the Pascack Brook. And it was just absolutely wrong.

What happened was, at that meeting he said all the right things. Rick said everything, the right things. We talked about, basically, the cross sections, every 500 feet. He said, "You don't have to do that. Do 1,000 feet." And we thought we had gotten a lot of information out of it and a lot of help. We turn around to the engineer and he said, "I can't do that. The rules and regs, as currently written, say I must do this. If I don't do this, I'm not living up to my professional standards and ethics." He said, "If I only do half a job on a verbal agreement, it's no good." He said, "I can't do that. They could kick it back in my face." He said, "What we need to do is change the rules and change the legislation." As I'm saying, Senator Cardinale's bill in the Senate, mine in the Assembly represent what we need in stream cleaning, and this is the message I want to get across to you guys.

The other thing -- sorry, Bob -- but when we talk about “if you don’t do a permit in so many days,” DEP finds more excuses to say, “You don’t have a complete permit, so we’re kicking it back at you.” I’ve seen it. I’ve been in the Legislature 24 years, John, and you know the tricks of the trade as well as anyone. This is what they do -- didn’t dot the *I*, didn’t cross the *T*, kick it back, not complete. So that you say 45 days-- And there are rules in place now that say if you don’t do it in 45 days, then we’ve got the permit. Uh-uh -- it doesn’t happen.

MR. HAZEN: Certain laws have that.

ASSEMBLYMAN ROONEY: Let’s get to the basics. Let’s get the legislation changed, the rules changed, work with the municipalities. Like I said, the prime object here is to protect the residents from flooding in their homes. We’ve got to keep their homes sacred. And we can’t worry about if we’re going to disturb this amount of wetlands, or that amount of a little vegetation, or even the fish in the brook. We’ve got to worry about the people in the homes that we’re putting in jeopardy.

ASSEMBLYMAN GORDON: Thank you.

John, does your colleague have any comments to add?

MR. HAZEN: No.

ASSEMBLYMAN GORDON: Okay, thank you very much, John.

I think, at this point, I’d like to turn to--

I’m sorry, sir.

ARTHUR HALVAJIAN: (speaking from audience) I’d just like to say something. I have to leave shortly. I have a slip up there.

ASSEMBLYMAN GORDON: Oh, you do?

MR. HALVAJIAN: Yes.

ASSEMBLYMAN GORDON: You are?

MR. HALVAJIAN: Arthur Halvajian.

ASSEMBLYMAN GORDON: Why don't you come forward then.

Mr. Halvajian, if you could just identify yourself for the record, please.

MR. HALVAJIAN: My name is Arthur Halvajian. I'm a real estate developer and builder. And I currently have been participating with Scott Rumana, the Mayor, on Wayne's Flood Task Force for the last couple of years. And unfortunately, we can't get enough participation from the surrounding communities, from the water companies. It just falls on deaf ears. But he's working his tail off, and we need more participation. I think the more people you get involved, the sooner somebody is going to listen and say, "Hey, why can't we do that?"

I have two comments to make. One, I drive past the new dam, that they just put in for \$23 million in the Pompton River, every day. Twenty-three million dollars -- they didn't appropriate a dollar for somebody in a rowboat to take the trees that are on the spillway -- and there's got to be 15 or 20 trees laying on the spillway every day. And you can't tell me the dam's got -- can't function properly after spending \$23 million with these trees in the way. That's number one.

Number two, back when we had Floyd-- I'm a photographer. I took my camera and I went out and I said, "What's causing this flooding?" And I ended up down at the Little Falls dam. And at that time there was a seven-foot head over the spillway. And I kept going back and going back,

and as the water receded, I saw that there was three little cut-outs -- four-foot wide, two-foot high -- in the dam going across. I said, "Gee, if that water was -- if the spillway was only down two foot, we would have two foot less flooding upstream." So I mentioned it to the Task Force. Paul Tuminello, from the Army Corps of Engineers, looked at the plan. He says, "That won't work." He took 30 seconds to look at it. The water company takes water on the top side of the dam, and we can't interfere with the water company because, after all, they're God. They don't even come to our meetings. They can take water down below, but they won't do that.

Now, there's a 37-foot drop from Little Falls dam to the bottom of the water. It goes downstream to where the bridge is at Great Falls, and there's another lake. And there's a 17-foot high wall there with a lake. And then from that lake it goes to Great Falls, and there's a 75-foot drop at Great Falls. If we were to lower the spillway of Little Falls two foot and lower the bridge -- the lake at Great Falls two foot, you would have no adverse affect on anybody downstream, except where you would hold less water. So therefore, when the flood came, your flood wouldn't rise as high. Maybe it doesn't solve the whole problem, but at least it eliminates some problems in some areas. Very little cost.

Thank you very much. (applause)

ASSEMBLYMAN ROONEY: Mr. Halvajian?

If I may ask a question?

ASSEMBLYMAN GORDON: Certainly.

ASSEMBLYMAN ROONEY: This is a new dam that they put in that doesn't have an adjustable level on it?

MR. HALVAJIAN: The adjustable level comes from the bottom up, instead of--

ASSEMBLYMAN ROONEY: From the top down.

MR. HALVAJIAN: --the other way. And if you listen to the Army Corps of Engineers, what they do is, when there's a flood they raise the bottom. It lets water out from the bottom. Instead of designing the computer system to anticipate a flood and to lower the lake upstream prior to the storm, they wait until they have a storm and then they raise the bottom.

Now, the Army Corps, at our last meeting -- or maybe it was the meeting before -- told us there was a glitch. They pushed the wrong button on the new computer and it raised the floodgate and it flooded downstream for five minutes. They show -- there's a chart. The press never learned about that. And then -- I won't even talk about-- But I know that the computer was not designed to do what you and I would look at and say, "When do we open this floodgate? Why don't we lower the level of the lake prior to the storm?" Now, I happen to live on that lake, and my son boats on it and water skis on it. We love the lake. But the point is, there's no reason that-- We know when there's a storm coming; lower the level ahead of time. "No, we didn't design it for that." Why? "Because Congress didn't tell us to do that." Congress is down in Washington. We should be telling them what we want, not them telling us how to control the water.

ASSEMBLYMAN ROONEY: Mr. Halvajian, just to give you an example: Woodcliff Lake Reservoir has the adjustment on top. The top level, I believe, is 96 feet. The bottom level is something like 88 or 89 feet.

When Hurricane Floyd came, they actually didn't lower the level until actually when the storm hit. If they had done it before, they would have saved a lot of properties.

MR. HALVAJIAN: Absolutely.

ASSEMBLYMAN ROONEY: And what's happened since that, we've had meetings with the water company, because the water company controls that particular dam. And they have, in almost every storm event -- where we know it's coming, we know it's a biggy -- that they have actually lowered the level prior to the storm hitting. So you've got to get-- Who owns this dam? I mean, who controls it?

MR. HALVAJIAN: The water company, and they're God.

ASSEMBLYMAN ROONEY: Well-- Which water company?

MR. HALVAJIAN: Passaic Valley Water Commission, and--

ASSEMBLYMAN ROONEY: That's a State agency, if I'm not mistaken. Now, talking about the old Hackensack Water -- United Water -- if we could sway them and get them to comply, I think we should be able to sway Passaic Valley Water Commission to actually have this lowering prior to a storm event.

MR. HALVAJIAN: Well, you tell me what you've got to do to get them to come to the meeting.

ASSEMBLYMAN ROONEY: I think--

MR. HALVAJIAN: Scott Rumana invites them every meeting and they just ignore it. They don't show up. They don't send a representative.

ASSEMBLYMAN ROONEY: Well, I think coming from the Legislature we should be able to get their attention.

Chairman Gordon--

MR. HALVAJIAN: I think Scott's going to be here later this evening. But I have to go, so I--

ASSEMBLYMAN GORDON: Well, we appreciate that. We appreciate your comments. And certainly these suggestions that you have made, we are going to convey to Passaic Valley and try to get a response from them.

MR. HALVAJIAN: And then by having an improper water elevation, flood elevation, in the Passaic River Basin, we have things called *zero net fill*. We have -- if you want to build you have to buy fill credits. Do you know what fill credits are? If you bought a yard of fill, it costs you \$4 to \$6, delivered by a truck. If you needed to build a building and you needed to raise the elevation so it wouldn't be in the flood level, you have to buy fill credits. A yard of fill credit today is selling for \$80 a yard and you get absolutely nothing. Somebody dug a hole, and they said, "That hole is going to fill up with water when the flood comes," so therefore the DEP gave them credits, fill credits, that they can sell on the open market to stupid people like me, who want to build a building that you don't want to flood. Eighty dollars a yard. There are absolutely no controls over what anybody can charge for fill credits.

ASSEMBLYMAN GORDON: Thank you for that, those points. I will convey that as well. We have a number of other people who are going to testify, and I want to thank you for your comments tonight.

MR. HALVAJIAN: Thank you.

ASSEMBLYMAN GORDON: I appreciate your being here.

UNIDENTIFIED SPEAKER FROM AUDIENCE: (speaking from audience) I have just a procedural question. Isn't there supposed to be a planning board meeting here tonight?

ASSEMBLYMAN GORDON: I don't believe so. Maybe in another room.

UNIDENTIFIED SPEAKER FROM AUDIENCE: I don't recognize any of you on the planning board. (laughter)

ASSEMBLYMAN GORDON: This is not the Lodi Planning Board.

ASSEMBLYMAN ROONEY: Your application is denied. (laughter)

ASSEMBLYMAN GORDON: Mayor Viscana.

MAYOR VISCANA: Thank you.

I know I gave testimony earlier. But I'm sitting back here and I'm trying not to get annoyed, because in all due respect to the DEP and the EPA, we have told them something's broken, no one's doing anything about it. Now, for the past eight years I've been an elected official in Lodi. For the last eight years I've heard, "Our laws have to change, this has to change." Well, exactly when are you people going to do it? I mean, what are we supposed to tell our residents? I mean, we have a business person here who almost loses his business every time something happens. We have a resident, in the back, for this last 16 years not only is she getting water, she's getting sewage. And what's happening in the last year and a half, I do believe, parallel to her on the other side of Route 46, they're getting just as much flooding. So I'm not an engineer, but I would say there's something definitely wrong under 46. So we can sit here and everybody can tell you

what our problems are -- we've done it a thousand times. We're tired of it. What are you going to do to change it? What do we tell our residents? That's what I think we should be discussing.

We have a lot of State officials here tonight. That's wonderful. We have the EPA, the DEP, that's great. But what's missing in this equation are the people who are affected, and I think they should have been notified about this meeting. Because we can sit here, and everyone is going to come up and tell you a horror story, because we all have them. What are we going to do to stop this from happening again? When are you going to change the laws so we can help our residents? Because right now, we're sitting here and we're looking around saying, "We're not talking about anything no one didn't hear about before." So what are you going to do?

ASSEMBLYMAN GORDON: Well, your questions are well taken. This process, at least for some of us, is new. A number of us in the Legislature felt that, because nothing had been done, we needed to actually form a legislative committee. The end product of this process I am sure is going to be some legislation or changes in procedures at departments so that we finally bring some relief to these towns that are being devastated every time we have a heavy rainstorm.

MAYOR VISCANA: That's great. But I think when you do have these meetings, you need to advertise. Because if our residents knew -- I think some residents, and only because I told them to come tonight -- you wouldn't be able to fit the people in Borough Hall. They wouldn't even fit in the K-Mart parking lot. And that's only Lodi. So I think people need to know that these meetings are taking place so they can come here. Because they come to our meetings, and we look at them and say, "We don't know

what to do.” And if I were them, I don’t know how much longer I would take that.

ASSEMBLYMAN ROONEY: Mr. Chairman, one of the things that’s happened in the past is, as mayors and individual legislators, we tried to find out the answers to the problems in each area, like the Pascack Brook, the Sparkhill, in my area. I have to complement the Chairman, and also, basically, whoever formed the Committee -- who said that we should form the Committee -- on the fact that now we’re doing -- instead of doing piecemeal, where the DEP can ignore any of us in separate areas, they can’t ignore if we’re now together, if we’re acting in a statewide fashion, and we’re acting together -- Republicans, Democrats.

MAYOR VISCANA: Right. Well, that’s why we formed the Coalition of Mayors, just to hopefully--

ASSEMBLYMAN ROONEY: Exactly. This is the first time that this committee has come together to do this, to look at it from the legislative standpoint. I’ve done it in my district. I’m sure Assemblyman Gordon has done it in his. I know every legislator has done it in their district, trying to work with the DEP. We’ve gotten to the point -- we’re not getting anything done. So now, what you see before you is only the second meeting, I believe.

ASSEMBLYMAN GORDON: Second meeting.

ASSEMBLYMAN ROONEY: The second meeting of this task force. And we’re trying, as the Chairman says, we’re trying to come up with legislation. Senator Cardinale and I have our view of what it should be on stream cleaning. There are other things that have to be done. I think you heard a lot of the suggestions here. A lot of it has to do with

communicating to the Passaic Valley Water Commission, this type of thing; but what you see is a start. It's a good start.

MAYOR VISCANA: Oh, yes, it's wonderful. I appreciate your being here.

ASSEMBLYMAN ROONEY: Yes. I'm speaking as the minority party.

MAYOR VISCANA: But I think our residents need to be here, because they're tired of hearing our answers, and maybe you could offer them some glimmer of something that is going to happen.

ASSEMBLYMAN ROONEY: Right. What we want now-- I think the first thing is we want to hear from you, the elected officials, because you're the voice of the people. If we were going to hear everybody that has a problem, we'd be here for days. And you and I both know that. What we want to do is get it boiled down to the individual problems, be able to analyze it -- you know, I'm a management major. I look at -- okay, here's a problem. Let's look at the possible solutions and take it in a management-type way.

MAYOR VISCANA: And we appreciate that. But what I think is, we're going to invite you to our next Mayors Coalition meeting and then you're going to be able to understand a little bit better what we're going through.

ASSEMBLYMAN ROONEY: Believe me, I've been to many of them in my own district, and I would absolutely welcome the opportunity to share whatever my experiences have been.

MAYOR VISCANA: Thank you.

ASSEMBLYMAN ROONEY: And frustrating, to say the least.
(applause)

ASSEMBLYMAN GORDON: Thank you.

Again, for those who may have just arrived -- the procedure we're trying to follow tonight -- if you would like to make a statement, there's a slip we'd like to ask you to fill out, in the back of the -- in the hallway, I believe. And if you would just bring that forward, we will get you on the list so that--

UNIDENTIFIED SPEAKER FROM AUDIENCE:
(indiscernible)

ASSEMBLYMAN GORDON: Well, why don't you come forward then. We do have a long list of witnesses, and we're going to try to accommodate schedules as best as we can.

Ma'am, if you could just identify yourself for us, please.

MARIA CORREIA: I'm Maria Correia. I live on 49 South Savoie Street, in Lodi, and I was one of the residents that Mayor Viscana was talking about. We're a little unique on that block, because we don't live near a river or stream. We have the problem with the runoff from the water. We live at the bottom of a hill, and all the water collects on our block, and it's literally a river. It's five, six feet high. Residents can't get out of their house. We get water coming into our basement windows. We've had water coming into the windows, into the house. We also get a sewer backup in that area because all of the water flow. It goes into the sewers, whatever the problem is in that area. So I've been there 16 years. This has been going on for over 30 years. This was not disclosed to me when I purchased my home. I think that's another thing you need to look

into. Things should be disclosed. But that's baloney -- I would have never bought my house if that was the case. I have a neighbor of mine who just bought her house a year ago. It was not disclosed to her. They told her that they did have a sewer backup years ago and that was it. She wound up with water in April. So I think legislation in that respect needs to change, because I think homeowners are being ill-advised. I think realtors are there to make a profit on homeowners, and they're not telling the buyers what's really going on in the home. Now I know what to look for when I go in a home. I can sniff it, see it. I pull things-- Believe me, I know what to look for.

But my problem is, is that I've been living with this for 16 years. There are residents on my block -- they've been living there for longer. You're going to now do your legislation to work with Passaic Valley and everything else, to work on rivers and streams. What are we going to do about the problem we have on a particular street that has nothing to do with the other issue? We have a sewer problem and we have a water problem. And this happens every time it rains heavily. Not once every 10 years, like Floyd and the rivers -- it happens eight, nine, 10, 12 times a year. That's what we have to deal with. You lose time from work. You get sick knowing that you might have water in your basement. You have a sewer backup. I have a two-family home. It's a health issue. We have a check valve in the home. You can't use the toilets, you can't do laundry, you can't-- My way of living is disrupted, my tenants' way of living is disrupted, because we have an issue here. This has been going on for years, and I need to know what you are going to do in order to help this situation along. They're going to do their part in taking action. I need to know -- if they

cannot-- If they find that it's the sewer system that needs to be totally replaced, or that it's the drain system, or it's Route 46, what's going to happen? What is the State going to do for me?

I can't sell my home now if I wanted to. I had it on the market this Summer. Now I have to disclose-- Not only do I get flooding, I have a sewer backup every time it rains. So my house, instead of it being worth over \$700,000, which was the market value at the time when we had it for sale, now it's going to be-- Nobody wants it. I've had people that turned away because I said it. Because I feel that I need to be honest when people come into my home and see that I have a problem, not to be screwed like I was. Excuse me.

And I need to know what's going to be done. I can't wait any longer. Sixteen years.

Next time I have a problem I want to get a hold of you, you, you, and you and have all of you come to my street and stand there with me, and be in my home and deal with my problem every time. I can't wait 10 years. I can't wait 20 years. I need to know what's going to be done now. Who is going to help me?

ASSEMBLYMAN GORDON: If I could just respond, in part as a former mayor -- and John, perhaps you can as well.

Some of the problems that you may be experiencing may well not be related to flood control issues, but just the fact that your community has failed to invest in sewer systems or needs to make improvements to roads or water control. And we don't need any special State programs for that. The community needs to decide that this is a priority and--

MS. CORREIA: But what if they can't get the funding for that?

ASSEMBLYMAN GORDON: Well--

MS. CORREIA: And what if it has to do with Route 46, which was told to me in the past it had to do with the highway.

ASSEMBLYMAN GORDON: If I could just respond.

MS. CORREIA: That's a State highway.

ASSEMBLYMAN GORDON: If it's related to something like a State highway, that is a State responsibility and that's something we--

MS. CORREIA: Well, what would the State do? If it is, if the town then-- The engineers come back and they say, "The problem is rooted under Route 46." Now tell me what the State would do in that scenario?

ASSEMBLYMAN GORDON: You know, I am not an engineer, and I can't answer the questions. But I can tell you that if there is a flooding problem caused by a State highway or facility, your legislators -- myself, my colleagues -- have an obligation to go to the Department of Transportation and get funding to get that project in place and the problem fixed.

MS. CORREIA: Really, it's that simple?

ASSEMBLYMAN GORDON: Nothing in the State government is simple, trust me. But that's the way I would proceed there. If it is, in fact, a flood control issue-- As I said at the outset of this hearing, one of the things that I hope will come from this process is, we will make flood control an infrastructure priority in this state. And if the Governor monetizes his assets and we have these billions of dollars available for transportation improvements, road improvements, bridge improvements, I

want some of that money going to flood projects, as well, to deal with the perpetual flooding in the Saddle Brook, and in the Rancocas and the Raritan, problems arising all over the state. That's what I'm hoping will come out of these hearings.

But some of the problems you're talking about-- My basement floods all the time, too, and it's a town problem. And the people on my block had to raise hell with the town council to make--

MS. CORREIA: But does your basement flood? Why? Because you get water on your street six feet high? Do you get water on your street?

ASSEMBLYMAN GORDON: Yes.

MS. CORREIA: You do? You get water on your street where people can't come out of their homes? People can't -- nothing. Yes?

ASSEMBLYMAN GORDON: I get a lot of water on my street.

MS. CORREIA: Oh, do you really?

ASSEMBLYMAN GORDON: John.

ASSEMBLYMAN ROONEY: Yes. I had a very similar problem in my town. We were sitting at the planning board, there was an application for a particular cul-de-sac that somebody wanted to put in on Lambert Avenue. The next street over was Tappan Road, which is a county road. When the applicant came forward, all the residents said, "Look, we get a lot of flooding right now in our backyards." There's one area that has a lake in the backyard, and it is going into basements and it is affecting their quality of life, their homes. What we did, as a borough, we assigned the engineer to find out what the problem was. Again, management principles: identify the problem. You've got to know why you're getting

flooding. We looked at it -- it turns out that Tappan Road, a county road, had no drainage whatsoever on that road. It all ran off. And as the county built the road higher and higher, more and more runoff came to the backyards of these people and into their homes. And it was an isolated incident because the topography was -- it came off like this (indicating), down and into their backyard and then into their homes.

What we did was we got together with the county. We said, okay -- and I saw Farouk Ahmad a little while ago -- but we actually improved Tappan Road. From the boarder of Norwood up to the Rockland County border, we put in drainage. We put in curbs which now funnel the water into the drainage system. And amazingly, these people no longer had lakes in their backyards. Your town is the first line of defense for you.

MS. CORREIA: But where did they get the money for that -- to do the work there? The town did it?

ASSEMBLYMAN ROONEY: No. That's your town's responsibility to come forward and say, "You have a problem because--" Their engineer is on-- It will cost them money. But there's a reason why you're having-- If he comes up and he says, "That's the lowest point in town," it's not being caused-- If he finds out it's being caused by Route 46, the town has a right to go to the State and say, "You're causing this problem, now you correct it." But you can't come up to us and say, "This is what the problem is." And you can't assume it's a problem. It has to be an engineer.

MS. CORREIA: It is a problem. I'm not assuming it's a problem. It's a problem.

ASSEMBLYMAN ROONEY: No, no. I'm saying, you can't assume that it's caused by this, that.

MS. CORREIA: No, let me ask you a question. If there--

ASSEMBLYMAN ROONEY: Let me finish.

MS. CORREIA: Okay.

ASSEMBLYMAN ROONEY: You have to have the town engineer say that this is the problem, and the solution is-- And then they will prepare plans. The county will work with them and say, "Okay," -- the county or the State -- say, "Okay, you prepare the plans and you tell us what we have to do." We got somewhere around \$700,000 to fix that problem between the State -- because the State kicked in 150,000 because the town doesn't do sidewalks and curbs. It was basically -- we had a State grant for that. You can get money from the State and from the county if they're causing that problem, but you've got to find out who's causing the problem.

MS. CORREIA: And let me ask you -- you just mentioned about-- We have no curbs or sidewalks on those streets by us, and we were told that they cannot do them because we have the highest, what do you call it, income per household, or something like that.

ASSEMBLYMAN GORDON: You may not have qualified for community development.

MS. CORREIA: There's all seniors citizens in our area.

ASSEMBLYMAN ROONEY: That's for grants, but--

MS. CORREIA: For grants. Oh, that comes from the State?

ASSEMBLYMAN ROONEY: That's for grant money. Not the State, probably community development grants is what they're looking--

ASSEMBLYMAN GORDON: Community, though.

Ma'am, you know, some of these subjects I think are--

ASSEMBLYMAN ROONEY: They're a little far afield.

ASSEMBLYMAN GORDON: --appropriate questions to take to your council. And my office would be happy to work with you on this. I mean, you're one of my constituents. But I would, if you don't mind, I would like to allow some of the others to testify.

MS. CORREIA: Okay. Because it's not an important issue for you.

ASSEMBLYMAN ROONEY: Oh, it's very important.

ASSEMBLYMAN GORDON: It's important.

MS. CORREIA: (speaking from audience) No, it's not an important issue. No, it's not.

ASSEMBLYMAN ROONEY: That's why we're here.

MS. CORREIA: Because we're the ones that got to deal with this problem. And we've been going back and forth with the mayor, old mayors and everything, for years.

ASSEMBLYMAN ROONEY: I think--

MS. CORREIA: And I would like to get your name and where I can reach you. And then I'm going to come to you every time it rains. And I've had -- one time the DEP-- I've called them, because I have the sewage back up in the home. And they told me, "Put in a complaint--

ASSEMBLYMAN GORDON: Ma'am--

MS. CORREIA: --as many times as you can," so maybe the State can get involved and do something.

ASSEMBLYMAN GORDON: --here's my card.

MS. CORREIA: I will take it, because I will be calling you every time.

ASSEMBLYMAN GORDON: I will do my best to help you.

Thank you very much for being here. (applause)

MS. CORREIA: And I like how people roll their eyes because they're bored. (applause)

ASSEMBLYMAN GORDON: I would like to--

MS. CORREIA: You shouldn't roll your eyes, or be like, "Oh, my God" when I talk. I'm upset, and you should understand it.

ASSEMBLYMAN ROONEY: I didn't roll my eyes. I was looking--

MS. CORREIA: Not you -- the lady next to you.

ASSEMBLYMAN GORDON: I'd like to call Dorothy O'Haire, of the Regional Flood Board. Is Ms. O'Haire present?

D O R O T H Y O ' H A I R E: I didn't expect really to speak tonight. And you're not going to believe me--

ASSEMBLYMAN GORDON: Can you just identify yourself for the record, please?

MS. O'HAIRE: Dorothy O'Haire, Little Falls.

And I love the Army Corps of Engineers, and I love the DEP.
(laughter)

ASSEMBLYMAN ROONEY: You're just saying that.
(laughter)

ASSEMBLYMAN GORDON: You may be unique.

MS. O'HAIRE: Floyd-- I'm just a resident, that's it. Floyd came along and we had a brand new condominium complex with a 10-foot

retaining wall which was buried in the river bank, and then 35 feet to the river. Floyd came along and ate the 35 feet, and this 10-foot wall was fully exposed and hanging in the air. I said, "Oh, my God." I mean, there's only 32 units, what are we going to do? That's a million dollar wall.

I called Senator Torricelli's office -- "That's not our job." I called the town -- "Well, gee, I don't know what we can do." I mean, I can understand. Because like, who's going to help me? And then, you know, God helps those who help themselves. I picked up the phone and I called the DEP and Mr. Nabil Andrews. And I said, "This is what happened." He said, "Well, you can have an emergency permit." This is what you need, your council and whatever. I went up to the council that night; they didn't believe me. They said, "No. DEP never does that." I said, here's the man's name, you call him tomorrow. End of story is: They did waive the permits. And we had a grant through Senator Robertson. And so, the township had the money.

I called Congressman Pascrell's office, and he said that he would send the National Resource Conservation Service. They came, inspected it, three days later gave our mayor a check for \$66,000 and said, "This is what you have to do. You have to get a bulldozer in there and clear out these islands." And all the damage on the Peckman River was caused -- it brought down the 46 bridge, it just washed out the abutment -- it was all caused by trees that had not been cleaned out of the brook and shoals that have been built up.

Little Falls is a small town. We're only 12,000 people. But like I said, we helped ourselves. We formed a flood board that concentrates on the Passaic River. We also formed a regional flood board with Cedar Grove,

Little Falls, and West Paterson. That's the Peckman River. We have the Army Corps of Engineers in there now. As a matter of fact, we're meeting with them tomorrow night in Little Falls, because their study is done. But if you don't start the study, it can never be done.

And that gentleman that was talking about Little Falls and the dam -- that study is finished. It was finished in 1989. And if they -- this Beattie's Dam is built on top of a rock ledge. If they take that out and put what they call baskill (phonetic spelling) gates in there, it will bring the flooding down eight feet. That means Little Falls will not flood, and it will only make a difference of less than two inches downstream, which they could probably mitigate. Like somebody said, "Start downstream first." Put a couple of -- a small (indiscernible), two inches to save people's -- whole neighborhoods. Eight feet; and it's all in here. The work is all finished from 1989, and the interest rates then were 8.75 percent, which it wouldn't be now. So all we need is money.

ASSEMBLYMAN GORDON: We've heard that before.
(laughter)

MS. O'HAIRE: But no, I mean -- but I understand. But people have got to -- you've got to hound your officials. I called Congressman Pascrell. There was a piece of property that -- he wanted to build 25 houses on it, and it would have swamped the people on the other side of the river. I have a letter from a Mark Mauriello, of the DEP, saying that if this property was developed the people's homes and lives would be in danger. But they couldn't stop them. But Congressman Pascrell stopped them. He went to the Federal Government and he got money. He went to the State and he went to Green Acres and he -- \$5.4 million they had to spend. And

it's now going to be a county park. But things like that don't get done unless you have nadders. I don't know how else to say it.

But this-- As far as money is concerned, that's what I want. I want money. I want Beattie's Dam fixed. And it can be done. It's all here, as I said, from 1989.

So I thank you for listening.

ASSEMBLYMAN GORDON: Thank you for your comments.

MS. O'HAIRE: Oh, another thing. There's such a thing as a hazard mitigation plan.

ASSEMBLYMAN GORDON: Right.

MS. O'HAIRE: Our township -- small little town -- they appropriated \$50,000 to get this mitigation plan done. Because once it's done, then you can apply for money to do these things.

ASSEMBLYMAN GORDON: Right. There are hazard mitigation grants available from the Federal Government, through the State.

MS. O'HAIRE: And there's only two towns -- Atlantic City and Wayne -- that have it completed. So there's all that money out there that's allocated, but nobody has a hazard mitigation plan, so they can't apply for it.

ASSEMBLYMAN ROONEY: Don't tell anybody. You'll be the only ones to get it. (laughter)

MS. O'HAIRE: Oh, ours is getting done. (laughter)

Thank you.

ASSEMBLYMAN GORDON: Thank you very much.

I'd like to call, next, Mr. Richard Kropp, of the United States Geological Survey.

Mr. Kropp, I'm advised that the Army Corps is under some scheduling constraints. Would you be willing to defer to the Corps?

RICHARD KROPP: Yes, are they going to be first?

ANTHONY CIORRA: Sir, his presentation is on our machine. So we can't go until he goes with his.

ASSEMBLYMAN GORDON: Okay, very good.

Mr. Kropp.

Are we having some technical difficulties?

MR. KROPP: Yes.

MR. CIORRA: Yes, we apologize. Just a second. It was working before.

ASSEMBLYMAN GORDON: I'm sure it's due to global warming. (laughter)

Do we have a solution?

MR. KROPP: Yes, I hope so. It will be a quick presentation. (laughter)

MR. CIORRA: Could we call up anybody who doesn't need this PowerPoint, in between, to save some time?

ASSEMBLYMAN GORDON: I'm sorry.

MR. CIORRA: Can we call up anyone to testify while we--

Mr. Kropp, do you need the PowerPoint?

MR. KROPP: Yes.

ASSEMBLYMAN GORDON: In that case, in the interest of solving our technical difficulties here, I'd like to call on Dr. Claude Epstein, from Richard Stockton College.

Dr. Epstein.

If you could identify yourself for the record, please?

C L A U D E M. E P S T E I N, Ph.D.: Okay. I'm Claude Epstein, Professor of Environmental Studies at Richard Stockton College. I am a hydrologist, and I'm not going to give the presentation which I brought with me on the PowerPoint, because it's going to be too much of a problem.

ASSEMBLYMAN GORDON: The Committee expresses its appreciation for that. (laughter)

And could you just speak a little closer to the microphone, please?

DR. EPSTEIN: Okay. I want to engage in the Socratic method, since I'm academic and I can do that -- and this way I won't have to rely on that.

I have a few points that I think might be helpful -- at least the way I think about flooding. First of all, any analysis of flooding ought to be done on a watershed basis, because that is where the water is going. It enters that watershed and it leaves that watershed. In my view, there are four kinds of flooding, each requiring a different style of mitigation.

The first type is simple over-bank flooding, where the channel can't hold water and the water just flows out. The second type is surface runoff, where water from the uplands flows onto the floodplains and water is coming from a different direction. The third type is water table emergence, which is more common in South Jersey, where rainfall causes

the water table to build above a surface. And the fourth type, which is also more common in South Jersey, is tidal flooding, where onshore winds prevent bay water from leaving the bays and cause the channels which feed them to back up.

So there's four different types, they occur in different parts of the state, and they require different styles of mitigation. One overall hydrological point is that within each watershed there's only one way for the water to get into the watershed, and that's precipitation. But there are three ways that it can leave: It can either leave by evaporating and going back into the atmosphere, it can run off over the surface and into the rivers, or it can recharge into the ground and discharge itself that way.

In terms of how this might be useful, any one mechanism which stresses one of those three outputs takes water away from the other. So for instance, if we relied more on percolation through porous soils, that would intercept water that would normally run off and cause flooding. If we allow for more forest canopy and shrubbery, instead of lawns and impervious structures, you'd have more water leaving through evapotranspiration, and once again less water as surface runoff. So you could see those things as kind of guiding principles. Look at it in terms of a watershed. Try and instigate those outputs that will work against flooding, and work it that way.

Thank you.

ASSEMBLYMAN GORDON: I just have a question.

I think it's a commonly held belief, as we've seen the number of floods and the severity of floods increase in recent years, that there's some relationship with all the building that's gone on for the last two or three

decades. There's a belief that the increase in impervious surface, for example, has exacerbated flooding. Do you believe that that has been a major factor? And if so, should we rethink our land-use laws to perhaps try to achieve greater control over impervious surface, and make runoff and drainage -- make them higher priorities in the planning process?

DR. EPSTEIN: Yes, I do, in answer to the first and the second. My experience in South Jersey, where the soils are really porous, is that flooding is a rare event. When you do get a good storm, there's a lag time of about two days before it hits the stream, and then it's fairly subdued. But in places like Toms River, whose population has increased by an order of magnitude, the lag time has been shortening. And so now the impact of a storm has been coming more quickly and more forcefully. So I think that is an issue.

ASSEMBLYMAN GORDON: Okay.

Thank you very much.

ASSEMBLYMAN ROONEY: Excuse me, whose presentation is this? Is this yours? Oh, okay. We're going to cover that.

ASSEMBLYMAN GORDON: Is the Corps ready?

MR. CIORRA: Momentarily.

ASSEMBLYMAN ROONEY: The Corps is always ready, right?
(laughter)

MR. CIORRA: It says so right on the front page.

ASSEMBLYMAN ROONEY: It says here, "Relevant, Ready, Responsive, Reliable." (laughter) We'll go to number two, "Ready."

ASSEMBLYMAN GORDON: Are you ready to proceed, or would you like us to--

MR. CIORRA: You can do one more.

ASSEMBLYMAN GORDON: Okay.

Mr. John Miller, of the Association of Floodplain Management.

J O H N A R T H U R M I L L E R: (speaking from audience) If I could approach. How are you?

ASSEMBLYMAN ROONEY: Sounds like an attorney.

MR. MILLER: No, I'm actually an engineer, but--

ASSEMBLYMAN ROONEY: Oh, okay.

ASSEMBLYMAN GORDON: See me in my chamber.

(laughter)

MR. MILLER: This is the oral text and some brochures.

ASSEMBLYMAN GORDON: Thank you very much.

If you could identify yourself for the record, please?

MR. MILLER: Sure. John Miller, from the New Jersey Association for Floodplain Management.

Good evening, Mr. Chairman and members of the Panel. My name is John Miller, as I've already said. I'm the Legislative Committee Chair of the New Jersey Association for Floodplain Management. And I'm here and after going to refer to *the Association* -- and that's the New Jersey Association for Floodplain Management.

Our all-volunteer organization is dedicated to reducing loss of life and property damage resulting from floods, and promoting sound floodplain management at all levels of government. Many of our members come from the fields of emergency management; building code enforcement; municipal, State, and Federal Government; utilities and the

private sector, and have been directly involved in aiding the recovery of floods across our state.

Our New Jersey statewide organization of 170 members -- and growing, I should say -- is a chapter of the national Association of State Floodplain Managers, with one -- I'm sorry, 11,000 individual and chapter members. I have the privilege also to be the Regional Director of ASFPM. Our shared goals are to heighten awareness to flood risk, which as we hear tonight, that's -- actually a lot of people, obviously, know that too well; to provide education and improve communication; and to protect public safety, property, and New Jersey's economy.

The Association appreciates this opportunity to appear before the Panel and looks forward to working with the New Jersey Legislature on making the State of New Jersey more resilient to flooding.

Some introduction and background: Currently, excluding the Gulf Coast states of Florida, Texas, and Louisiana, and the state of California, New Jersey leads the nation with the total number of flood insurance policies, at over 218,000 policies statewide. Outside the Gulf Coast states of Texas, Louisiana, Florida, Mississippi, and Alabama, New Jersey has received the highest total National Flood Insurance Program claim payments from 1978 to 2006, totaling over \$808 million. And these claim payments don't include the flooding that we just had last June, and also -- that was along the Delaware River -- and this April nor'easter, of this year, that we had.

New Jersey's flood exposure was, again, recently realized as most of the state experienced the second worst natural disaster in the state's history from the April 2007 nor'easter. This event was the 10th

Presidential disaster declaration in New Jersey related to flooding in the past decade. We're having these Presidential disaster declarations very frequently. State and local government cannot rely on the Federal Emergency Management Agency and the Federal Government to bail out New Jersey communities when flooding hits. We know, from the lack of preparation and the devastation left in the Gulf of Mexico coastline by Hurricane Katrina, that we must be self-reliant. To that end, our Association was founded soon after the Burlington County flooding in the Summer of 2004. Unfortunately, we've had many events since that time frame.

We accomplish our goals in prevention preparation response through education and collaboration. We call on the New Jersey Legislature to work with us to help New Jersey citizens and businesses. As part of our strategy for accomplishing our goals of flood mitigation, the Association has identified five major areas that require the focus of the New Jersey Legislature, and I'll explain these in more detail as I testify. We've also provided to your Panel written testimony that goes into much greater detail.

The first main issue is Federal mitigation funding support. The ability to apply for Federal flood mitigation financial support is contingent upon the involvement of the State, county, and local governments. It's a combined effort. The Disaster Mitigation Act of 2000 required local jurisdictions to develop all-hazard mitigation plans by November 2004. Unfortunately, so far in the State of New Jersey only two municipalities have adopted plans that have been approved by FEMA, and you've heard this already. This is Atlantic City in Atlantic County, and Wayne

Township in Passaic County -- only two of 541 municipalities participating in the National Flood Insurance Program.

New Jersey, fortunately, is now catching up with the requirements of the Act to regain eligibility for disaster assistance and grant funding. Much progress has recently been made in advancing countywide plans to make towns eligible. This planning is crucial to qualifying for Federal mitigation grants that are sorely needed in New Jersey for voluntary property acquisitions, house elevations, and flood control projects, to name a few. As stated in our written testimony, the State and its communities have underutilized the available mitigation funds designated for New Jersey in past years. We just cannot let that continue. We've actually missed out on millions and millions of dollars. I can help you with the actual statistics at a later time.

With plans emerging statewide in the next couple of years, it is critically important that the staffing at the New Jersey Office of Emergency Management Mitigation Unit is sufficient. Right now it is not. The State has their mitigation officer as the position that coordinates with FEMA on mitigation grant applications and administration of the grants after the award. The lack of the State Hazard Mitigation Officer staff will become increasingly apparent as more municipalities want to apply for mitigation funds. The Legislature can work with the Governor's office on increasing the profile, staffing, and funding of the Office of Emergency Management Mitigation Unit. It's extremely critical for us to make progress with mitigation.

The next topic is local flood mitigation funding match. Natural hazards are overwhelming to municipalities, as we've already heard tonight.

When an extreme event affects communities, they typically lack the resources to absorb losses without external aid. Municipal government is too small to cope with the scale and the scope of flood events. As with the nor'easter we just had, and all events that are declared a presidential disaster, Hazard Mitigation Grant Program funds are allocated to New Jersey. But this Federal funding requires a local match. It's usually at a 25 percent non-Federal requirement. Further detail is provided in our Association's written testimony on this.

The New Jersey Legislature needs to establish a dedicated source for flood planning and mitigation funding to match the potential mitigation funds that FEMA provides. A dedicated source of funding is essential to progress project feasibility studies, perform benefit-cost analyses, complete engineering design and permit applications, and pay for the filing of Federal grant applications. They are not easy to prepare; they are very difficult. I can say that from personal experience.

Another way to fund local match requirements is through stormwater utilities, thereby creating a mechanism for continuous local response to major flood problems. Stormwater utilities have been in existence for over 30 years, in 30 states. A study released to NJDEP in 2005 concluded that no new legislation would be necessary. The Legislature needs to start a dialogue with DEP and also the Department of Community Affairs to enable legislation for stormwater utilities in New Jersey. I should say no new law is needed -- it's legislation that is required. I'm correcting my testimony.

Flood monitoring -- this is our third issue. New Jersey's tide telemetry system -- described in more detail, again, in our written testimony

-- and to this year has been funded by DOT, the Department of Transportation. DOT this year abruptly cancelled the funding, which is matching funding for the system, from its budget. There's a very short-term, stop-gap funding to keep this program running, as evacuation and road closures depend on this system.

The Legislature is asked to consider a line item in the budget to have continuing funding for this essential system; and to insure continuous operation of all flood gauges in New Jersey, which is not always so predictable. And lives and property depend on this. This is how emergency managers choose when to shut down roads and when to make evacuations. Losing that system would be an absolute disaster -- an additional disaster, I should say.

The fourth issue is appropriate land use, and we've heard some mention of land use here. The National Flood Insurance Program initiated in 1978 provides Federal flood insurance for homeowners and businesses that is not available privately. Unlike the state of New York, the National Flood Insurance Program was never adopted by the New Jersey State Legislature, requiring all State policies and agencies to be consistent with that program. This has created confusion and inconsistencies with the Federal requirement.

Let me give you an example: The New Jersey Department of Community Affairs Rehabilitation Subcode is not consistent with the requirements to bring a structure into current standards after being substantially damaged or substantially improved. In fact, FEMA sent a letter to the Attorney General of New Jersey and said, "We'd better work

this out, because you're putting the National Flood Insurance Program in New Jersey in jeopardy."

The Legislature can end the inconsistencies with Federal requirements by adopting the National Flood Insurance Program within the State of New Jersey. Plus, in order to successfully carry out the National Flood Insurance Program in the state, we're asking that the National Flood Insurance Program coordinator that's within the New Jersey Department of Environmental Protection should be given the enforcement power to administer the program. Right now they're pretty powerless to enforce the rules.

While we live in one of the most flood-prone states in the nation, State planning guidelines do not require a hazard mitigation element in the municipal master plan. There is a need to heighten the priority level of hazard mitigation in State planning legislation.

Other recommendations by our Association as -- again, in detail in our written testimony, include giving land-use boards more authority to reduce additional flooding. Sometimes land-use boards aren't counting applications that they are pretty confident will cause more flooding in an area where flooding hasn't really been solved.

Encouraging the use of transfer development rights for flood-prone lands: We aren't aware of any case where that's being used. We think that's a very good program to be used to keep additional development out of these risky areas.

We also believe -- boosting the participation in the community rating system program. The community rating system is almost like a good driver program. It actually -- if communities participate in that program,

doing very little more than the minimum of the National Flood Insurance Program, the communities will actually see a reduction in the flood premiums. The participants in those communities that are paying for flood insurance, they'll get reductions. And the further--

ASSEMBLYMAN GORDON: In other words, this is sort of equivalent to the ISO rating that a town gets for its fire protection?

MR. MILLER: That is absolutely a good corollary, yes.

ASSEMBLYMAN GORDON: Right. Yes.

MR. MILLER: Yes, absolutely. Yes.

That's where that program is actually built -- off that program. Yes.

ASSEMBLYMAN GORDON: Right.

MR. MILLER: We also highlight amending the New Jersey reinsurance bills. These are Assembly 3236 and Senate 2620, to require participation in the community rating system to receive proceeds, or possible proceeds, from the revenue of that fund. We want to have some incentives for communities getting awarded revenues, while we're not really taking a position on the bills' merits.

My fifth issue -- and I appreciate your time very much -- information, education, and training. While every municipality is required to have a local floodplain manager to participate in the National Flood Insurance Program, a code official with the authority from the New Jersey Department of Community Affairs typically fills this role. But our Association is concerned that these officials have limited training to function in this capacity. In addition, the NJDEP houses the NFIP coordinator's office that provides State oversight of the local floodplain

managers. Due to staff retirement, attrition, and the State hiring freeze, only one person within DEP is supervising the local floodplain managers for 541 towns in the National Flood Insurance Program. The job is much too big for one person. And the NFIP coordinator needs additional staffing and support. They're really overseeing the front lines in preventing additional flooding problems.

The Association believes that floodplain management administration at the local level, consistent with the NFIP, requires certification and continuing education. While New -- and a lot of people will know, in this room -- while New Jersey attorneys are licensed and surveyors need continuing education, New Jersey's engineers at this time -- I am an engineer and I'm actually embarrassed about this -- unlike many other states-- I'm licensed in other states, and I'm required to get continuing ed; in the State of New Jersey, engineers are not required -- and this might surprise some people -- not required to get continuing ed to maintain their license.

Like code officials, engineers are on the front line of both design and review of proposed development that will have changes to the hydrology in the immediate area and downstream. Engineers need to know ways of mitigating floods and must embrace the most up-to-date techniques, no matter what type of engineering they're doing.

Education is critical for professionals to be in tune with the changing field of expertise. Engineers need continuing education, and code officials acting as floodplain managers need training in floodplain management.

Flood victims -- and this is my last couple of points -- flood victims have difficulty with where to get accurate information and what they should do post-disaster. The Association agrees with the Governor's Flood Mitigation Task Force -- I had the privilege to be on that -- in recommending that a flood ombudsperson be created to be a central source of direction and a connection to the people, to find the proper agency for assistance. FEMA very often sets up a disaster trailer. They stay there for some time, and then they must move on to another disaster. We need a consistent source of good information and connection to the people.

Unfortunately, many people in New Jersey's floodplains still do not have flood insurance. This makes them vulnerable when a flood strikes. We are asking the Legislature to work with the New Jersey Department of Banking and Insurance to get the word out that flood insurance is as important as homeowners insurance. While DOBI doesn't oversee the National Flood Insurance Program, they can assist FEMA in the marketing of this very important coverage.

And in conclusion, our Association is committed to raising awareness and providing the most current information on flood mitigation to our members and to the citizens of New Jersey; and let me include the Legislature as well.

There are two upcoming events this Fall. We are prominently advancing our message. And I've handed to you -- this is our brochure for next week's conference. The New Jersey Association for Floodplain Management will host its third annual conference next Thursday and Friday in Somerset, New Jersey. The conference theme is *Flood Mitigation in New Jersey – Building Successful Partnerships*, because that's really what it takes. I

have brochures for everyone who is interested tonight, if there's anyone in the audience. Certainly I can give members of the Panel additional copies as I have. We have 250 people already signed up. We expect maybe 300, maybe even over that. We have some incredible people coming to this conference.

Also, as part of the New Jersey League of Municipalities Convention, the Association will be staffing Booth No. 132 and is participating. And I have the privilege of participating in this in a session titled -- and someone mentioned this tonight -- "Flood Mitigation Resources to Protect Your Town." It's going to be Wednesday at the League conference, at 2:00, in Room 408/409. And we very much thank the League for having us there.

In summary, while we can expect flooding to return -- it's going to come back, we absolutely know that -- there are improvements in policy and practices that can be accomplished to lessen the cost to the public, homeowners, and businesses. The New Jersey Association for Floodplain Management believes that the above recommendations to this assembly can collectively make drastic improvements in New Jersey's resiliency to flooding. The New Jersey Association for Floodplain Management applauds the Assembly for recognizing the critical need to address flooding in New Jersey, and we look forward to continued participation with the members of the Legislature on ways to reduce future flood damage and strengthen New Jersey's resiliency to flooding.

And I thank you very much for your time this evening.

ASSEMBLYMAN GORDON: Thank you, Mr. Miller.

I want to thank you for testimony that I found particularly helpful, in that you built it around specific legislative recommendations and policy recommendations. I, for one, would very much like to continue this conversation to see what kinds of legislative changes we can make, and then produce some bills to address the issues that you raised. I found your testimony very, very helpful. I appreciate your coming here and look forward to working with you. And I hope I'll see you at Booth 132.

MR. MILLER: Thank you very much. We'd love to see you there.

ASSEMBLYMAN GORDON: Thank you.

John, do you have any questions?

ASSEMBLYMAN ROONEY: No. I think he covered it.

Thank you.

ASSEMBLYMAN GORDON: Thank you very much.

MR. MILLER: Thank you very much.

Is the Corps ready to--

MR. CIORRA: Let's go to USGS and (indiscernible).

ASSEMBLYMAN GORDON: Okay.

Mr. Kropp.

I ask those in the audience to try to be a little patient. We're going to try to move this along as quickly as possible. I know that many of you have been here for some time. I'm going to try to expedite this.

Mr. Kropp.

MR. KROPP: Okay. And I'll do my best to get through this in a hurry. Sorry for the technical delays.

My name is Richard Kropp. I'm the Director of the United States Geological Survey's New Jersey Water Science Center, and I appreciate the opportunity to come and talk to you today about the stream gauging program and flood warning networks that we're involved in, in New Jersey.

The Water Resources Division of USGS -- and I guess most people know us more for our maps. There is a Water Resources Division, and our mission statement is to provide the information in a timely manner so that people can make decisions. Decisions are made for all different parts of water resource management, including these, and what we're here to talk about tonight is the final one, which is minimizing the loss of life and property as a result of water-related hazards.

The National Hydrologic Warning Council did a review of the statewide -- actually nationwide USGS stream gauging program, and came out with a report talking about all the benefits of it. I think to engineers and people involved in the field this was pretty obvious, but it documented for the first time all the things that our stream gauges are used for besides flooding. And at the cost of maintaining these types of systems, they're bringing the basic hydrologic data that are the basis of decisions made by emergency managers, by the Army Corps of Engineers, by FEMA -- is far and well worth the cost.

The number of stream gauges throughout the United States -- this comes from our Web site, as of today -- shows you the number of stream gauges that are operated by USGS, with quite a large amount in the eastern United States. And the color code here is depending on the amount of rainfall. Where you see red, we're talking about drought; and where you

see blue, they've had quite a bit of flooding out in the Midwest. We have similar information in New Jersey. We currently operate 108 flow gauges in New Jersey, predominantly in the northern part of the state, related to a number of the water diversion projects and flood control projects that have gone on in the state, some of these going back almost 100 years.

Here's our map of -- the rains last night turned these from red and yellow to green and blue. But you can look at it every day and find out what is going on, as far as the state. This kind of gives you a snapshot, and you can look at each individual gauge and find out information about that gauge directly from the Web site.

What is a stream gauge? A stream gauge -- you might see these alongside of the road, on bridges, and certainly along streams. And it basically is a system that allows us to measure how much flow is going past a certain point. And we're trying to develop a relationship between the stage, or the height of the flow, and the amount of water that goes by. So we're constantly measuring this. And here's a measure at the Delaware River, at Trenton, and you can see, over a course of time, every day the flow is being measured. And we can look at long-term records and come to conclusions about the effects of land-use changes, climate change, any type of flood control projects -- anything that goes on, this is your monitoring system that explains to you what's happening in the watershed.

Here we see a basic stage discharge rating curve for Trenton. And what you can see up the side is the gauge height -- so how many feet above a base level, and then what the flow is for that. So we developed a relationship-- This is where the 100-year flood comes from; this is where the 500-year flood comes from: analyzing, going out and collecting

information over a period of time. There's over 500 measurements that have been made at this point that allow us to make scientific analysis, and come back and explain -- if you get so much flow, what we expect that the gauge height is going to be. That's going to translate into a floodplain, that's going to change like into what's going to get flooded. So when a prediction is made by the National Weather Service, they expect a certain amount of flow to come down, we know, based on this, how high that flow is going to be. And now you can start evacuation, closing roads, doing whatever you think needs to be done.

The information is coming from the hydrologic stations, the stream gauges, up through a communication system that brings it directly to your computer. We're on the Internet. We can see this information in basically real time. This information is used for forecasts in the morning by the National Weather Service; disaster management by Offices of Emergency Management to make evacuation, recovery. And a lot of emergency managers across the United States rely on these systems, and many of the Federal agencies that we work alongside.

If you go to our Web site, *usgs.gov*, and you click on the real-time stream flow information, it gives you a list of all the stream gauges and tidal gauges in the state. You can pick on one -- this is the Stony Brook in Trenton -- and it's going to show you, over a period of time -- and you set that period, or do you want to look back over the last 30 days or however long back -- to see what the gauge height is, what's the height of the stream as it goes by, what the actual flow is going by. And then it gives you statistics on what the lowest has been of record, the highest of record,

what's the median flow -- information that's useful for water resource managers.

This is a blowup of the discharge information, so you can see how much flow is going past that point at every single day. So not only are we picking the information today, but we're cataloging this information so we have a history of what's going on out there. It's very important for long-term studies. And this is the gauge height. So we compare the gauge height to the flow. Again, if we're predicting 1,000 CFFs coming down, we can tell you at what height that's going to be at that point in the stream.

This is the floods that came through here -- the nor'easter that came through back in April. A little bit of a rainfall documentation from the National Weather Service. And we saw peaks of record. You'll see in the right column, under remarks, new peak of record in red. The flows that came through this area -- and those were the gauges that were listed -- in many cases were the highest ever measured at these points in New Jersey. So we talk about a lot of different hurricanes and large, different floods, but here was a nor'easter that came through. And I know many people experienced the flooding that came out of this. This allows us to put it in perspective. So when there's the third highest peak of record, the highest peak of record -- so when you're designing something, you're building something, you want to make sure that you're taking into account what the peak of record is.

The flood warning systems that we run in New Jersey -- we run a series of them. There's the tide telemetry system that John Miller spoke about earlier, the Passaic warning system, the Pascack warning system, the Rahway and the Somerset County warning systems; and I'll give you

information on those. Now, the mission of the flood warning is to provide this information. We collect information, we assess it, and we want to communicate it. So our goal and our job in this overall function of floodplain management and flood control management is to provide the information to people. That they can make the decisions.

The Flood warning systems in New Jersey -- we have the Pascack Flood Warning System -- and Assemblyman Rooney was talking about the Pascack earlier -- the Passaic Warning System, the Rahway Flood Warning System, the Somerset County Flood Warning System, the Burlington County Flood Warning System, and then there's the tide telemetry system that provides information on all of the coastal areas of New Jersey. The purpose of the tide telemetry system was the back bays, behind the barrier beaches, all the roads that lead off those areas.

And I was down at another Assembly panel on Coastal Evacuation, yesterday, on Long Beach Island, where this was a very hot topic. Those roads that lead off of there is how you get everybody off those islands. And when we have floods down there and you need to get people out, you need information in a hurry -- when are you going to move people, what's going to happen with the roads back there -- again, giving that information to the county emergency management folks. And many of them testified at the hearing how valuable that information is. This is a repeat of that.

Basically, 28 tide gauges up and down the coast with some weather stations; some crest-stage gauges, which allow us to get the highest crest of each storm; and then base stations in each one of the counties so that the Office of Emergency Management folks have instant access to that.

This is what they look like. Basically, they're giving you information on how the tide is moving over time. Again, documenting it over a long period of time gives us information to forecast. But we need to be able to backcast and be able to have information that we can show over history what has happened. And as certain events come, it allows the National Weather Service to make more accurate predictions and more timely predictions on flooding in the back bays of New Jersey.

Flood warning also includes weather stations. This information again is provided on the Internet. So it's not just going to emergency managers and to other Federal agencies. Anybody can look at this. And I think that's one of the values of it, is that when citizens can see this and they can see the information, they know that it's real time. They know this is what's going on. It's not somebody telling them in the newspaper. When they see it, I think they believe it more. And when you're talking about evacuations and you're trying to get a lot of people -- talking yesterday about getting a half of million people off of Long Beach Island, off one road, with some kind of advanced notice. When they can see it, they can access the information themselves, it's somehow more real to them. So it's not being filtered through government agencies. They can go right on, and they're looking at it directly from the equipment out in the field. And I think that's important from a public perspective. Again, to your computer is where it comes.

This is where it is available. If you Google USGS, you'll be able to get onto the information. There's a map of each state, and you can go to the New Jersey office and you can get the information directly there. So, again, it puts it directly in the hands of the public and everybody else that

needs it. All our data is quality assured and published. We're very focused on making sure that the data is correct all the time. If we got any information that we have questions, we send technicians to look at the equipment and make sure that we're giving you the best information that we possibly can give you.

Our home page is here. This is where the hydrologic conditions -- this is a list of all the tide gauges that we operate up and down the coast. Again, you can just pick any one. I picked the Passaic River at PVSC in Newark, and there they'll give you all the information about that tide gauge at any time that you want it. And also, you can go back in history and look at it.

Where we see this going in the future is, we think the tide telemetry system gives us basic infrastructure that can be used for a lot of other things. And today we're talking about flooding. But once you have the equipment out there, you can do water quality, you can do traffic sensors along the roads. This is information that's going to be essential to ecological studies, finding out more about the tidal regime once you can document this and we have the information over time. It helps us, and it gives you more accurate information for tide navigation charts.

The next thing we'd like to see is a real-time flood inundation mapping. Again, if you could imagine, as these gauges are moving up and down, whether it's a stream or the tide -- if you could see what areas of your town were going to be flooded by that, with a prediction from the National Weather Service, and you see the house that you live in or the street you live in turns blue as those tides go up, or as that water level goes up, again I

think it reinforces the fact that flooding is coming. The information is coming; they're seeing it directly.

The concern that's been raised -- and John brought it up, and it's been raised before -- is the tide telemetry system is cofunded, as all of our gauges are, usually with a 50/50 share by the Federal Government and State government. The tide telemetry system -- DOT is unable to fund it this year. We did get money from the Office of Homeland Security to fund it until the end of December. After that, we're not sure where we're going. We've had some short-term funding solutions maybe come forward. But we do think that it's important that, if we want to keep this system operating and it is really the basic infrastructure that provides the data that everybody else uses in making decisions -- we need to find a long-term funding source for that. So I'm willing to work with the Committee or anybody else in order to do that.

So any requests about information, please feel free to contact us on our Web page, our phone number -- I give you all that information. And we're willing to come to these meetings, or any other meetings you have, to explain what we do, how we do it, and how we can do it better.

So, thank you very much.

ASSEMBLYMAN GORDON: Mr. Kropp, thank you very much for your presentation.

Given the seriousness of the flooding that occurs in the state -- we heard Mr. Miller talk about the number of flooding events that occur -- and the recognition that we need to improve our emergency planning and response to these events, it would seem to me that this telemetry system, these flood gauges, are a pretty critical element. And I, for one, was

shocked when I learned that the funding was going to run out. In fact, I think it was supposed to run out in September, but you got some interim funding from the Department of Homeland Security--

MR. KROPP: Yes.

ASSEMBLYMAN GORDON: --as I understand, with very much of a short-term basis. It seems to me that this Committee needs to convey back to our colleagues in Trenton that -- particularly our colleagues on our Budget Committee -- that, as Mr. Miller said, this should be a line item in the budget to provide long-term funding for this. And if anything, we need to further integrate this system into our emergency planning. And so I want to thank you for just bringing this to our attention. This is certainly something that we can, short-term, we can bring back to try to get resolved with our colleagues back in the Assembly.

MR. KROPP: And I think you'll find from the National Weather Service, and the Office of Emergency Management at the county levels, they would agree. Appreciate it.

ASSEMBLYMAN GORDON: Assemblyman Rooney, do you have any comments?

ASSEMBLYMAN ROONEY: No, thank you very much. Very enlightening.

ASSEMBLYMAN GORDON: Mr. Kropp, thank you very much.

We just have a handful of people who have requested to testify. We have Mayor Rumana, of Wayne, who I hope will just be patient with us.

I'd like to call on George Nestory, who has been waiting patiently.

Mr. Nestory, would you identify yourself and make your comments?

GEORGE NESTORY: Thank you very much. I really appreciate you people coming up here and giving us the ability to address you people. It's the first time I know of this happening, and I have to thank you, Bob.

Going back, I think Mr. Rooney said that the first line of defense is your town. In our case, we had no first line of defense, because the mayor who had come up earlier had neglected for years. And the backup of the sewer system, that the lady said she had, is a breakdown in our sewer system that was never addressed. So we're getting encroachments of water. And now if we have to do it -- and we still have to do it, we have backups -- we have to pay a tremendous amount of money. So now we have to look at other sources. Hopefully, we can get some resources. And we don't have an impact tax on the developers who have been coming in and building these major projects and not paying for the infrastructure.

But the thing here that we have -- we have a Fleischer Brook. I don't know if it was really addressed earlier. Bob's very familiar with it. And that Fleischer Brook emanates from Fair Lawn, Saddle Brook, into Elmwood Park, and winds out through Elmwood Park into Garfield. And down Lanza Avenue, there's a big diversion. That was put in there in the '70s. That was the last time the Army Corps of Engineers was in any way positive in doing anything. The Army Corps of Engineers came in -- I was a councilman at the time -- and we addressed it. And it was an encroachment onto the brook over the years by builders, and not being policed by the

town and protected by the towns, especially in Garfield at the time. And the brook was not flowing freely, so it was backing up continuously. And this was the best corrective action that could be taken. And for years, pumps in my house and in my neighbors, where we had tremendously high water tables -- dropped, and for years we had no problem.

But it was never addressed, and over the years, it was allowed -- the encroachments came, the silt came into Fleischer Brook. We didn't have the town being proactive in trying to protect the town, and over the years -- and what happened is that the brook has filled with silt; and the mayor at the time, and his council, did not feel there was a problem, which was ridiculous, and there was a major problem.

Then Floyd came in '99, and people got tremendously hit. And believe it or not, the nor'easter back in April, it was probably worse in a lot of respects than Floyd.

ASSEMBLYMAN ROONEY: It was.

MR. NESTORY: And the mayor -- unfortunately who came up to grandstand, and only because-- He came here, and I just want to say this, is because he's running for election this year. He did absolutely nothing, and I can attest to that.

And the reason why I became proactive in doing what I'm doing is -- generating an interest in the public to get involved, is because there was nothing being done. And that's how we got involved, and that's how I got very heavily involved with Assemblyman Gordon's office, and he's been very, very helpful.

And what I'd like to say is, you've got to make permits easier to get. Okay? We're having major problems getting permits easier to get. We

get the Mosquito Commission, and they say, "Well, you've got to apply," which we have to do. And we have one or two people that refuse to allow the machines on their property. And for whatever reason, it doesn't make sense because it affects them. And we had major problems in that respect.

And what I'd like to see is -- DEP might say, or the environmentalists might say, "Well, we can't dredge because this might happen, that might happen." Well, these things, like you said -- and I'm a tremendously pro-environmentalist. I love trees. I love to see things recycled. And I can't stand when I see a bulldozer go into a wooded area, okay, and trees come down. But somehow, some way we've got to even the playing field, and the legislators have to help us determine where we can come in and where we can't come in. And the people's rights have to be to protect the homeowners where they're getting inundated with water. And sewage backups are the local town's, because the encroachment's coming in, into the sewer system that's archaic and broken; and the fact that it costs us a tremendous amount of money to have the Passaic Valley Sewage Commission process water. Okay? This costs us a half a million dollars a year, probably -- and the people in our town don't realize that, and it was never brought to their attention -- because of the fact the infrastructure has been neglected all these years.

Now, we have to do a tremendous amount of updating and it's very, very costly. So where are we going to get the money from? That's why people come here very frustrated and they look to you people to come up with some type of solution. Number one, the legislators have to do something with allowing us to go in, or allowing whoever -- the powers that be -- to go in and clean up the brooks, the streams, or whatever. Number

two, maybe under eminent domain of some sort, if there is a way of protecting a town, they might have to go in under the eminent domain. That's always a bad thing to say, but it's something that we should address. The third thing is-- Now, we have an unusual problem. The brook winds from Saddle Brook, Fair Lawn -- like Bob knows -- and it comes into Elmwood Park. And Lou D'Arminio, who is the Mayor of Saddle Brook -- thank God for him, because he was proactive -- he brought the thing to the head, and that's why we're getting a lot more action. And in fact, we're -- it's coming through Elmwood Park and then it goes out into Garfield, and it goes down to Lanza Avenue diversion, which is in Garfield.

Now, there are sections in Garfield, at one time, that were not being policed. It really adversely affected Elmwood Park. Because if it didn't flow into Garfield and into that diversion that directly -- gravity feeds it directly into the Passaic River, it's got to be cleaned out. It doesn't flow; it's backing up, and the table goes up and we get creamed. So that area now is being addressed, thanks to the meetings that we've had. And Tom Duch was here earlier, and I think the Garfield people have been trying to be cooperative in that area.

But now there's another problem we have, and that's the Passaic River. The Passaic River is -- I guess everybody knows about the Passaic River. I see Congressman Pascrell's office is here. It's a Federal project. It's a tremendous amount of money. And if they do dredge the Passaic River, which is very, very important, it's got contamination; and what are they going to do with the contamination that they dredge out? But somehow it's got -- there's got to be a solution. You've got to get academic people involved, the Army Corps of Engineers, the politicians, and

whatever. Everybody's got to brainstorm this thing and a solution. Not doing anything is not an answer. And things have to be done. And now it's starting to overflow. You can walk across the Passaic River. There's no base to it anymore, there's no depth to it. So it starts overflowing into the beautiful homes along the Passaic River in Elmwood Park. It's by the high school in Elmwood Park. And you can't even go down that road for -- I think it was a week it took the river to subside before they could use River Road in some areas. And now it's getting progressively worse. And these 100-, 200-, 300-year storms are coming every 10 years and everything is changing. So I think there's got to be somehow of managing the growth -- whatever that is. And everybody says that money talks -- and you know what? -- it walks, because the builders have everything to say. Well, maybe that's not true if everybody gets together. It's for everybody's sake.

Number two, we've got to do something with the Passaic River. The Army Corps of Engineers might come in and say we can lower the Dundee Dam in Garfield, if lowering the Dundee Dam it won't back up as much. But that might create a problem downstream, I don't know. But something has to be done with the Passaic River as well.

Now, there's two areas-- I mean, you've got the Saddle River. That's the problem with Saddle Brook, and it goes into Rochelle Park in Lodi, and everything. But also Fleischer Brook is another major problem in Elmwood Park, and it comes from Fair Lawn, Saddle Brook, and goes into Garfield.

So I would like to just bring those to the surface, that these things should be addressed. I know it's very costly, but it's got to be done. Just saying it can't be done because there's no money-- Somehow it's got to

be found, and some other perks have to be taken away. Whatever it takes, come up with the money. I think it's got to be addressed. And that's why I just wanted to come here and address the panel.

And here again, I thank you, Bob, for bringing the Panel up here for us to see.

ASSEMBLYMAN GORDON: Thank you, Mr. Nestory. You've taught me more about debris removal than I ever wanted to know. (laughter)

ASSEMBLYMAN ROONEY: I'd like to -- before you go.

ASSEMBLYMAN GORDON: Before you go, Mr. Nestory. Assemblyman.

ASSEMBLYMAN ROONEY: You mentioned that the town has already looked at the sewer problem for the woman who was up here before. Have you come with--

MR. NESTORY: No. I'm not from Lodi. I'm from Elmwood Park.

ASSEMBLYMAN ROONEY: Okay. I thought you said that they'd already looked at that sewer problem, that they--

MR. NESTORY: In Lodi?

ASSEMBLYMAN ROONEY: Yes.

MR. NESTORY: I guess they did. And I know in Elmwood Park they didn't, until we brought it to surface. You know, no pun intended, it's coming into the homes, and the mayor has never addressed it. And the thing is that you have a tremendous amount of building going on, and you have a tremendous explosion in the use of our sewer system -- and the sewer system is what it was 50 years ago, 45 years ago -- the main line,

not the lines hooking up to the main line. The lines are hooking up to the main line from these projects that are being built. We've got new homes, and these gigantic duplexes, and all that stuff. These lines are new because -- but they're coming from the homes to the street, the main lines. The main lines going out of Elmwood Park are archaic. The pumps are 50 years old. They can't handle the volume, okay? And the mayor never addressed it. He constantly laughed and scorned at the idea. He said, "We have no problem." He said there was no flood problem.

ASSEMBLYMAN GORDON: Mr. Nestory, now we're starting to get late. And if you don't mind, I'm going to--

MR. NESTORY: Yes, I know. I don't want to-- I just want to say that these are the areas that have to be addressed. It's going to be very, very costly to upgrade the sewer system now.

ASSEMBLYMAN ROONEY: Just an aside -- I was Commissioner at the Bergen County Utility Authority for five years. One of the things is -- and I know you're in the Passaic Valley system -- but in the Bergen system, we could have, in 1985, I think it was -- there was a study that was made that we could have actually improved every sewer within our system, BCUA, the entire BCUA, for somewhere around \$15 million. And that's if the BCUA turned around and said, "Okay. We're going to go out and we're going to do all the repairs necessary;" because we were getting I&I, which is inflow and infiltration, you know, from water coming into the system, and we were processing water. At that time, the Bergen County Utilities Authority was doing 75 million gallons a day. Currently, instead of doing that \$15 million job for the I&I, they decided to expand the plan, twice. They're now up to 125 or 130 million gallons a

day, plus it cost them somewhere in the neighborhood, I believe, \$200 to \$300 million to do those two expansions, instead of taking and repairing the sewer pipes for about \$15 million. This is what government is all about, and this is the problem. Instead of repairing what's wrong, they go ahead and build to process water. So these are the kind of things that I really resent, and I have a problem with. So I sympathize with you.

MR. NESTORY: We have the same problem.

ASSEMBLYMAN ROONEY: And I'm sure if the Passaic Valley decided to go in and repair all of their infrastructure--

MR. NESTORY: Right.

ASSEMBLYMAN ROONEY: --that leads into their plant, they would come up with a very low dollar, because they're doing it all at once. And they would save millions and millions of dollars in lower flow rates for everyone of the municipalities. It's thinking a little bit outside the box -- looking, identifying the problem, and coming up with the easier solution, the less costly solution. But that doesn't give money to the lawyers, to the engineers, to all of the bond people, and all the other people that feed off of government. This is the problem with government today.

MR. NESTORY: Well, it's bloated.

ASSEMBLYMAN GORDON: I'm shocked. (laughter)

ASSEMBLYMAN ROONEY: Yes.

MR. NESTORY: But what's happening with us, now, if you look at how much it's costing us--

ASSEMBLYMAN GORDON: All right. It is getting late. I want to kind of move the process along, and I'm going to exercise some discretion of the chair.

MR. NESTORY: All right. Thank you, Bob.

ASSEMBLYMAN GORDON: I wonder if I could, before we bring the Corps on -- Mr. Santangelo and Mr. DiChiara have been here for some time. I'd like to call them up.

Gentlemen, if you could identify yourselves for the record.

J A M E S S A N T A N G E L O: I'm James Santangelo. I'm from the Santangelo Funeral Home, in Lodi.

ASSEMBLYMAN GORDON: If you could just speak a little closer to the microphone, please.

MR. SANTANGELO: We've been in business in Lodi since 1950. During that time, we never had flood problems. Over the course of the years, obviously, our building has been encroached on the river. We continue to get more and more flooding. It's obvious that the river has to be dredged and widened. But for tonight, the problem I have is with the State. For example, they just completed a drainage system from Route 17 down Gregg Street -- a 13-foot pipe that comes underneath Main Street into the Saddle River, right around our building. In two weeks, they're having another meeting. They're going to widen Route 46 in Lodi, at Main Street. They're going to be continuously added drainage into the Saddle River.

Besides the public or private enterprises encroaching on the river, the State is adding to the problem itself. They're not helping us at all. The more we complain about something, the worse things get. It goes to deaf ears. I've been trying to get in touch with our Congressman Rothman for something like six, seven years now. I must have sent him 15 to 20 letters. I finally got a response from one of his aides after this nor'easter

telling me how to apply for grants from FEMA, or loans. I've been experiencing this since 1960. No one seems to even care about Lodi. We seem like we're the bottom of a pit in New Jersey, and they just overlook us. They don't take us seriously -- I don't know what the problem is. We pay enough taxes to get some type of benefit from Bergen County.

And another point is, after the flooding -- we're on Main Street, which is a Bergen County road -- our town has to go through their expense to try to clean up the streets. It's a Bergen County road. There's sewer backups. There's no disinfectants going on. The county only has one street sweeper. They couldn't supply it to us, because there was only one and it was broken down. But where are all the benefits from my taxes?

I brought up to the Borough Manager of Lodi to just stop paying our portion of the county taxes if we're not getting any help.

ASSEMBLYMAN GORDON: If I could just respond to that.

MR. SANTANGELO: Please.

ASSEMBLYMAN GORDON: When we had that April storm and the Paramus pump station failed or had to be shut down, and sewage flowed downstream, I got a call from your Borough Manager about "We need more street sweepers." And I called the Borough Manager in Fair Lawn and we sent a street sweeper over from Fair Lawn. And from what I understand, additional equipment came from other communities. But this is -- you're right on.

MR. SANTANGELO: But it seems like-- Like, we're on a county road, the county expects Lodi to do everything. It can't. We're a small town, and they just seem to ignore us. The more we complain, the more nothing happens.

I'd just like to thank you for listening to me.

ASSEMBLYMAN GORDON: If I could just respond to that. What I take from that is that there just needs to be, if there isn't already -- if there is, it's not working -- there needs to be some kind of response plan, an emergency response to a situation like that, where you've got an inventory of equipment to deal with street cleaning and disinfectant. And if the county doesn't have the equipment, the municipalities provide the equipment and get reimbursed for it.

MR. SANTANGELO: That's going to happen? Reimbursement?

ASSEMBLYMAN GORDON: That has to get written into a plan and--

MR. SANTANGELO: Can I throw something else out? After Hurricane Floyd, FEMA came in, offered us -- SBA offered us loans, all right? We had close to a half a million dollars in loss. The loan they offered us was at 8 percent to pay in four years, which came to like \$15,000 a month.

ASSEMBLYMAN GORDON: Thanks.

MR. SANTANGELO: And then after that, we would decline. They're publicizing, you know, "We offer these businesses loans, but they're not accepting them." Of course, we're not accepting them. The whole system is out of whack. In the meantime, our Congressmen and Senators are worried about spending money in New Orleans or out of this state. What do they care about what's going on there? I don't care -- I really don't care what's going on there. I care what's going on here.

Like I said, we've been here before there was any flooding. Now we're getting the hardships of whatever the people have done. So something has to be done. You have to live this, actually. And we're talking about these gauges. I look out my window; I don't need a gauge. I can tell you when the water-- I live right across the street from the Saddle River. I can save millions of dollars with my eyes.

A L B E R T D i C H I A R A: Yes. I'm Albert DiChiara, from the Santangelo Funeral Home. As my uncle was saying -- I'm 36 years old -- I was taken out in a rowboat in 1970 when the flood waters were bad. We were being flooded since the '60s, and every year it keeps getting worse. It can rain for a matter of 15 to 20 minutes on this county road, here on Main Street, right underneath the Route 46 trestle there -- it can rain for 15 to 20 minutes and it floods. And I'm talking two to three feet under that bridge. Within about 40 minutes of flooding, from that bridge up to our building, which is probably about 150 to 200 yards, the water comes into our parking lot.

I agree with Mr. Rooney here about that you have to clean the streams out below where we are and from the north of here. One of the major problems, I believe -- and a lot of people agree -- is the Felician College situation they have down there. I don't know how many years ago they allowed them to divert the river around where they were going to put a parking lot or an expansion of the college. The stream narrows down where they were also (indiscernible), before talking about that bridge in Wallington, in South Hackensack. That whole area combines where the water does come around the Felician College. Now, I realize we're not going to have a miracle here. It's just the little tiny things of cleaning,

dredging out the little rivers, cleaning up streams, the debris, and whatnot. I mean, if they took away a foot of the Saddle River, I believe, it may save me \$200,000 worth of damage.

We just put in -- we've had them probably since the '60s, but we just added pumps. I could have the ability to pump 3,000 gallons per minute out of my building. And I'm still not sure if that's enough. During the Hurricane Floyd, we had 14 feet of water in our building. Okay? I live there, my uncle lives there, my mother lives there. We're one of the oldest businesses in town. We've been around for 56 years. We serve the community. We don't get any help.

And as he mentioned before about the county road, Lodi does ask the county. And I realize what you did, you spoke to Tony Luna about that, getting the street sweeper down here. And the county has one street sweeper. And I realize what happened in Paramus. But when it doesn't happen in Paramus that causes the problem here, Lodi still gets hit all the time. The county is never there to help us. So what it does is, it puts a burden on Lodi, and I get affected, and I'm aggravated. People that I knew my whole life don't know what I go through. But they don't realize that their taxes are going up because Lodi has to pay for the fire trucks to get destroyed in these floods and the firemen to come through this. Lodi just finally got a grant, I believe, for two fire boats, which we never had a boat to rescue people. And I wish, like, someone invited you over to their home -- come over when we have a flood. You will not believe what you see.

Yes?

ASSEMBLYMAN GORDON: I should tell you that just during the last major storm I took a tour of Washington School, which is not very far, and I saw the kind of damage to the basement.

MR. DiCHIARA: I was on the school board, and we have to go through that just regularly--

ASSEMBLYMAN GORDON: Yes. And I remember Floyd, the water levels along the buildings on Main Street.

MR. DiCHIARA: Yes.

ASSEMBLYMAN GORDON: So I know how horrendous it was and the impact it had on the businesses and homes there.

MR. DiCHIARA: But the other thing, going back, you're talking about -- the gentleman before spoke about the money that the Federal Government pays out, that FEMA pays out for insurances and whatnot. If we're the highest in the country, that is one of the points the Federal Government should know about. Because they're laying all this money out to pay these people. And if they just dump -- reverse that money and dump it into simple fixes-- I'm not even talking this major plan, but simple fixes on these little rivers and streams, on dams and whatnot. And I realize it's going to be in the hundreds, and probably closer to a billion dollars, to do the whole entire state, where you're looking at probably a lot more. Just those little simple things maybe would prevent the payout to certain people. And it's like mitigation -- we don't know where to go to get money to help do all these things. We just spent probably \$200,000 since Hurricane Floyd just to prevent water. We never got a grant; no one offers anything. And when we did go to get the money, as my uncle mentioned, we can't get the money. So I built things with my

own hands to keep water out -- to protect it. But it's getting to the point where it happens when it rains for five minutes, and we're getting water in our driveway. It's just not that they're developing Lodi, and no one's coming here.

The pipe my uncle was talking about -- they're taking the water from Route 80, which is an Interstate Highway; Route 17. They're taking this water and they're putting in a 13-foot pipe and dumping it into the Saddle River. Now, I don't know how that was allowed. And I know this 13-foot pipe is a staging area for the water to sit. But eventually, when Route 17 and Route 80 is getting this heavy water, it's going to dump it into a flood area already. So I don't know how that was allowed, but something has got to be done.

And I appreciate you coming to Lodi and hopefully helping. Congressman Rothman, like we said, never returned a phone call, e-mailed. Letters -- we just received one letter that had nothing to do with what we sent them.

So, thank you for coming to Lodi. Thank you.

ASSEMBLYMAN GORDON: Okay, thank you.

I'd like to ask Mayor Rumana to come forward.

Mayor, thank you for being here tonight. Sorry to--

MAYOR SCOTT T. RUMANA: Mr. Chairman, I can't thank you enough for holding this hearing, for the Committee for taking the time to really address a very, very important issue.

ASSEMBLYMAN GORDON: I should say that if you were a member of the Assembly, you would probably be a great candidate for this Committee. (laughter)

MAYOR RUMANA: I do look forward to actually maybe being there at some time, because it is something that is of great concern.

As the Mayor of Wayne, I can always begin with a little, I guess, jovial statement. But we know flooding -- unfortunately, we know flooding. And I'm here to promote the cause of flood control in the central Passaic River Basin.

I really didn't know exactly how the Committee was dealing with the issue across the state. I guess you were having hearings around the state, and obviously there's different issues depending on where you are. From our perspective, the Passaic River Basin is an area that has been known to be a major flooding area for well over a hundred years, maybe from the beginning of time. I can just highlight a couple of facts that I have from the Army Corps of Engineers to really strike home the great problem that we have. The Passaic River Basin covers 983 square miles. At the 2000 census, we had 2.5 million people; 50,000 of those people live directly in the floodplain. There are 20,000 homes, businesses, and public buildings in 35 communities.

The damage figures which are -- they're staggering. The November 1977 flood cost us \$334 million. The April 1984 flood cost us \$642 million. The tropical storm Floyd disaster of September of '99 cost us \$261 million. The anticipated cost for the April 2005 flood was \$100 million. The occurrence of a 100-year flood today in the basin would result in \$2,240,000,000 in damages. The annual expected damages in the basin, due to flooding, are over \$161 million. There have been 10 Federal disaster declarations since 1968. And since 1900, roughly 100 years ago, or

beginning 100 years ago, 26 lives have been lost and over \$4.5 billion have been sustained in damages.

That does not include 2005 and 2007 floods, and it certainly does not include all the human suffering that has gone along with this. The April 2007 flood -- we had several thousand people evacuated in the basin, and damages are expected to surpass \$500 million. I do think that's important in the overall scheme of things -- and I'll get to that point briefly.

On a personal level, Wayne spent \$100,000 of our taxpayer money in the October 2005 flood, \$400,000 in the April 2005 flood, and \$750,000 this past April. Our surrounding neighboring communities of Paterson, Little Falls, Pompton Lakes, Pequannock, Lincoln Park, Totowa, Fairfield -- the list goes on and on, frankly -- and each town suffered a relative amount of damage. And that's just the public expense. That doesn't include what homeowners and businesses suffered in damages, and certainly the heartache that goes along with the victims.

As mentioned by John Miller earlier tonight, Wayne did benefit recently by obtaining money from the buyout program from the Federal and State Government for the Hoffman Grove Section of Wayne. It's a small section, but it is the most severely impacted area. It happens to be in the top 10 or five communities across the nation for repetitive loss damages.

Wayne, along with Atlantic City, were the only two municipalities to successfully complete the All-Hazard (*sic*) Mitigation Plan. It's one thing that the Committee certainly would want to promote, I think, is encourage communities. We've been doing this, by the way, to just get on board with All-Hazard Mitigation Plan filing and get through the process. We were very fortunate. We had three critical people who worked

on this: Sergeant Paul Miller, from the State Police OEM; Gary Seidenfeld, from FEMA; and Wayne's own OEM Director, Sandy Galacio. They -- without the combination of those three people, we wouldn't have gotten through the All-Hazard Mitigation Plan and we wouldn't have gotten the money.

A few things for the Committee that Sandy actually discussed with me today. One is that, from the local perspective, we have to streamline the way that the State and Federal funding is handled. The fact that we have matching grant programs -- we really have to look to try to eliminate that. Because when you're asking a municipality to provide a 25 percent match on programs of this magnitude -- in the millions of dollars -- it's just surpassing the ability of a town to be able to do it. We were able to combine Federal and State money, and we actually did get around the match by working with the programs, but it's taken an enormous amount of work.

Which kind of leads me to the next thing -- that there are many different programs out there, between FMA and HMGP. And these things, I don't even know what they even stand for, frankly, standing before the Committee. But I can tell you that, from Mr. Galacio and his perspective working through the program, he really stressed the fact that it's such an overly complicated process to try to navigate through; and the fact that we do need to try to find a way to streamline or consolidate all the funding, hopefully into one mechanism that will make it more feasible for towns to get assistance from.

A very critical point: As much as we benefited from the buyout program, we cannot buy out this problem. This became very apparent

when we formed what's known as the Central Passaic River Flood Control Task Force. We started this after the 2005 flooding. And we know -- when we formed the Task Force-- When you look at the magnitude of the problem -- spanning all the various communities in the Passaic River Basin, along with all the homes, the businesses, the infrastructure -- it is cost-prohibitive to buy the problem out, and it certainly would destroy the economies of all of these communities. So we have to find another way about this.

The Task Force was developed through the efforts of our own Congressman, Bill Pascrell, and at-the-time DEP Commissioner Brad Campbell. We have every key representative that you need to be on this Task Force, by the way. And I really want to thank -- I know that they are here. I know Congressman Pascrell's office is represented here; Senator Menendez's office is represented here; Charlie Defendorf, from the DEP, is at our Task Force meetings religiously; Senator/President Codey is there; Congressman Frelinghuysen is represented; as well as our 40th District Legislative delegation and the 26th Legislative delegation; every municipality; many town engineers; environmental commissioners; and the Passaic River Coalition. That's the bulk of the Task Force. Oh, and certainly the Army Corps of Engineers.

Our Task Force has one common goal, and that is that inaction is unacceptable. If you see the suffering that we've seen time and time again -- and you have, I know, experienced this in your own communities. But you know that we do have to find a solution to the problem. And my job, I believe, in leading the Task Force has been to try to build consensus. You have people who are very strong environmental people that want to

just talk about buyouts. You have other people who are very pro-structure. The one thing that I've stressed over and over again is, we're going to each have to give a little bit. The people who are on the environmental side are going to have to say, "Well, we're going to get some buyouts, but we're going to have to give up on some of our arguments about structure," and the structural people have to also say, "We're going to have to give on some buyouts. We're going to have to let some properties be bought out and have flood storage capacity built into the river basin." It is a very expensive proposition, there's no question about it. And it certainly is going to be funded by the Federal Government more than the State government, but the State government is going to obviously have a place to play in this game.

Two key points: We need to work with the Legislature to help us negotiate with the water companies to try to find a balance between storage and, certainly, creating space for flood waters to be held. Controlling further overdevelopment: obviously, a critical point. I think you've probably heard that a number of times tonight. And lastly, again, the expense of the effort. It is going to be expensive, whether we just do buyouts or not. But the fact is that any structure, any type of levy, flood wall, tunnel, modified tunnel -- whatever it is -- is going to cost a lot of money. The Legislature is going to have to be willing to put up that fund. But to just quote the old FRAM Oil commercial, "You can pay us now, or you can pay us later." And the fact is, when you look at those figures about what we've sustained in damages over all of these years, it's costing us more money to do nothing. If we pay the money up front and try to resolve the problem, and cut the head off of the tiger, we will be done with the problem

and certainly get rid of the human suffering and potential loss of life that goes with it every flood.

And again, I can't thank you enough for taking the time.

ASSEMBLYMAN GORDON: Well, thank you, Mayor.

I mean, you have obviously been on the front lines, behind the sandbags perhaps--

MAYOR RUMANA: Yes.

ASSEMBLYMAN GORDON: --in dealing with this problem. And I think you have a wealth of knowledge regarding just how to organize to respond regionally. Perhaps this Task Force is the model or template for what we need to do around the state in bringing all the key stakeholders together within a region to try to achieve some consensus over what needs to be done, so that we just don't end up litigating and fighting through the bureaucracy to get something done.

MAYOR RUMANA: Correct.

ASSEMBLYMAN GORDON: So I want to thank you for sharing your experiences with us and making your suggestions.

Assemblyman Rooney, do you have any questions?

ASSEMBLYMAN ROONEY: I think you've said it all. I'm coming from the same position, being a mayor and having flood problems. I know from whence you come.

MAYOR RUMANA: Yes, yes. It can be a very trying time. And unfortunately, we see it just about every April and every October. It's almost like clockwork.

ASSEMBLYMAN ROONEY: Yes.

MAYOR RUMANA: And I'm really thankful that we haven't had any major storm systems.

ASSEMBLYMAN ROONEY: Just for your information, in the handout, there's Wayne.

MAYOR RUMANA: Okay.

ASSEMBLYMAN ROONEY: And the Corps of Engineers has it pretty well catalogued in here.

MAYOR RUMANA: Yes.

ASSEMBLYMAN ROONEY: It's devastating, I know. And we've got -- and there's a couple of my towns in here also -- that they misidentified, by the way. I'll catch them when I get up. (laughter)

MAYOR RUMANA: You know, I tell anybody who complains about the Corps: You can be frustrated with them, but without them you don't have anything, because they're the people that you have to turn to, to solve the problem.

ASSEMBLYMAN ROONEY: If we give them money, or if the Federal Government gives them money, then they can help us.

ASSEMBLYMAN GORDON: And speaking of the Corps, the long suffering Corps--

ASSEMBLYMAN ROONEY: The long-suffering Corps.

ASSEMBLYMAN GORDON: --has been waiting.

MAYOR RUMANA: I defer to the Corps.

ASSEMBLYMAN GORDON: Folks, we are really getting to the end, and I'm sorry that somebody has to be last.

ASSEMBLYMAN ROONEY: Who are relevant, ready, responsive, and reliable. Now we're ready.

ASSEMBLYMAN GORDON: I'd like to call on the Corps.

Gentlemen, if you could just identify yourselves for the record and make your presentation.

MR. CIORRA: Okay. Good evening.

My name is Anthony Ciorra. I'm the Civil Works Program manager with the New York District, Army Corps of Engineers. Sitting to my right is Daniel Falt. He's one of the project managers from our office who manages a number of flood damage reduction projects in the State of New Jersey, and other states in our district; but also happens to be the project manager for the Lower Saddle River project which, of course, includes the town we're in right now, Lodi.

Just before I start, I just want to make clear -- I know you had a previous hearing in Burlington at the end of September, in which our Philadelphia District was represented. The Corps of Engineers is broken up geographically by watersheds. And the New York District essentially is what we call the *Hudson River and Raritan Watersheds*, including the Passaic River and the Hackensack. So I will be focusing my presentation, my testimony tonight, on projects within the New York District Corps of Engineers, which would not include the Delaware River Basin or points south along the coastline.

But of course, we're all familiar with flooding problems we have in the State of New Jersey, otherwise we wouldn't be here tonight.

Next slide please.

But first off, I just want to give a brief history of some of the larger flood events that occurred in the State of New Jersey over the last

century. Starting off in 1903, a flood of record in the Passaic River Basin. This was a 100-year event.

ASSEMBLYMAN GORDON: I think I see my family's mill.

ASSEMBLYMAN ROONEY: Yes. (laughter)

MR. CIORRA: That is the city of Paterson. It's important to note that back in 1903 there was little development within the Passaic River Basin. It was mostly rural farmlands. I think the Mayor had mentioned earlier, if a similar event occurred today -- 100-year event in the Passaic River Basin -- we're talking over \$2 billion worth of damages. That's just property, never mind the potential loss of life.

Next slide.

We're jumping here to the 1940s. I just want to point out, that doesn't imply that there was no significant events between 1903 and the 1940s, but for the sake of expediency -- and we didn't have the greatest photos in that point. I want to jump to the '40s here and focus on the last 50 or 60 years. But this is, again, flooding in the Passaic River Basin, along the Peckman River in the towns of Little Falls and Cedar Grove. Again, significant damage to property.

Next slide.

Again, in the Passaic River Basin, 1960s -- Fairfield, in the late '60s had a significant flood. Up top there, you see that car in the water? That's the Peckman River.

Next slide.

Of course, the flooding problems in the State of New Jersey are not only limited to the Passaic River Basin. We're going to move to the Raritan River Basin, and this is Hurricane Doria, August 1971, the town of

Bound Brook -- another major event. This community experiences problems right up to the present day.

Next slide.

I'm going to stay in the Raritan River Basin. This is the 1973 event. This was an intense rainfall event that occurred in the Summer months -- was not a hurricane -- resulted in this flash flooding of the Green Brook, in the towns of Green Brook and North Plainfield; resulted in six fatalities, back in 1973, and there's still an acknowledgment of that disaster to this day.

Next slide, please.

Back to the Passaic River Basin, April 1984 flood event. Major, major flooding occurred in the basin -- over, I think it was, over \$600 million in damages throughout the basin. Three lives lost. The photo here is looking at West Paterson and Paterson, and the picture speaks for itself -- the devastation.

The next slide.

This is the same event -- 1984 storm, the April '84 storm. The Mayor's town, Wayne. That is Route 46, and you can see traffic snarled on that thoroughfare, and actually the eastbound lanes are under water. And all the surrounding areas, of course, are inundated with flooding. And this is a photo of Paterson.

Next slide.

New Jersey, of course, is also a coastal state. And we have problems with coastal flooding. This photo here is Monmouth Beach, taken back in 1987. Very frequent occurrence at the time. The January 1987 -- this was not a nor'easter or a memorable storm event. This was some heavy

rainfall with a full moon tide. That's Route 36, major north/south thoroughfare, Monmouth County. This occurrence, like I said, was very frequent. Since this time, we have a beach replenishment project, a coastal storm damage reduction project that's in place. This has not occurred once since that project was completed back in 1995.

Next slide.

Staying on the Jersey coast in Monmouth County, Monmouth Beach. This is the Halloween storm of 1991. It's also called the *perfect storm*. You can see the intensity of the storm surge over the seawall into the coastal neighborhoods there.

Next.

Keyport, December '92 nor'easter: This is actually the last significant coastal storm that hit the Jersey coastline -- the northern New Jersey coastline, that caused real significant damage. This storm stayed around. Slow-moving storm -- stayed around, the peak of it, for four tide cycles. Unlike hurricanes, which come in and get out quickly, nor'easters tend to stick around, hang around slowly, and just pound the shoreline.

Next slide.

This is another nor'easter that occurred in October of '96, back in the Raritan River Basin. Again, Bound Brook -- more flooding and people being evacuated.

Next slide.

Tropical storm Floyd, which many of us remember -- a devastating storm. These are photos of the town we're in, Saddle River. Excuse me, Lodi. The Saddle River coming up very quickly, requiring

evacuations and causes significant damages in this town. It was nearly a 100-year event for Lodi.

Next slide.

1999 -- the same storm -- this is tropical storm Floyd. Bound Brook once again. You see the pattern here? Second floor flooding in Bound Brook -- not first floor or basement, second floor. Second story flooded. Businesses caught fire, burned to the ground -- rescue personnel could not get to them. Rescue personnel, firefighters were called as far away as New York City to assist in rescue operations during this event in Bound Brook. Two fatalities during the event. It's the flood of record for the Raritan River Basin -- a 500-year event.

Next slide.

The following year, in the Summer, we had significant flooding in the upper Passaic River Basin. This is the Upper Rockaway River. That structure here is a senior housing complex you can see being inundated all around.

Next slide.

October 2005 event: Rained for eight straight days and had prolonged high tides. And this is Wreck Pond coming up and flooding Ocean Avenue. That's not flooding coming from the ocean; this is actually a nearby pond that flooded the town, along Ocean Avenue there.

Next slide.

This is the most recent storm event -- we've heard a lot about tonight -- the April nor'easter. Once again, Raritan River Basin, Bound Brook -- 100-year event in both the towns of Bound Brook and Manville,

on the other side of the Raritan. Again, Bound Brook homes, structures caught fire; two homes burned to the ground.

Next slide.

In one of the earlier testimonies from the USGS you heard that Hackensack River had hit its peak flow record in certain areas. This is one of them, the Hackensack River in the town of River Vale.

ASSEMBLYMAN ROONEY: Wrong.

MR. CIORRA: It's not River Vale?

ASSEMBLYMAN ROONEY: No. River Edge.

MR. CIORRA: It's River Edge. Okay.

ASSEMBLYMAN ROONEY: Yes. The Hackensack River doesn't flow through River Vale.

MR. CIORRA: It's River Edge, yes.

ASSEMBLYMAN ROONEY: That's pretty much the Pascack and the reservoir up there.

MR. CIORRA: That is the Hackensack, though?

ASSEMBLYMAN ROONEY: This is the Hackensack. This is River Edge. In fact, right down the road from that is the Steuben House--

MR. CIORRA: Right.

ASSEMBLYMAN ROONEY: --which the DEP didn't maintain too properly, and that -- horrendous damage.

MR. CIORRA: Okay. Thank you.

Next slide.

Again, it's the April nor'easter. Shots of Little Falls under water, as well as West Paterson. Five thousand people had to be evacuated in the Passaic River Basin. Estimated damages were more than \$500

million. Now, it's important to note, relatively speaking this was not a huge event. It ranged anywhere from a seven-year to a 20-year event throughout the basin. So compare that with some of the larger we've had in the past, we could have been talking, as I said before, in the billions -- damages.

Next slide, please.

Here are shots of the Saddle River at Lodi again. And it's important to note that impacts are not only felt by people and private residences, but you can see there's also damage that occurs to municipal property, as can be seen by this school bus parking lot that was flooded in Paterson.

Next slide.

Okay. So obviously, looking at all these photos, we have a historical record of significant flooding problems in the State of New Jersey. There is a risk, and that's really what we're here to talk about today. The Corps of Engineers, since Hurricane Katrina, has learned a lot of lessons. And we don't even use the words *flood control* anymore, officially -- it was, first, then *flood damage reduction* in that we cannot control all flooding. We can't control flooding for every significant event that occurs out there. We can certainly try to minimize it and fight it. But it's all about, now, managing risk and making municipalities and states aware on how to minimize that risk.

So starting off with the coast, of course: densely populated, heavy developed communities along the coastline of New Jersey.

Next slide.

The risk comes from flooding, flood damage that's caused by wave heights and durations of the water levels, as well as beach erosion that occurs from the wave impacts and the high water levels.

Next slide.

There's also a risk, of course, inland along our rivers. We have some of the most densely populated and heavily developed floodplains in the country in the State of New Jersey. So you have an effect on people, of course, and their private properties. Another effect of this type of flooding is, you have environmental damage that may occur when the industrial facilities become flooded and contaminants are released.

ASSEMBLYMAN GORDON: Mr. Ciorra, I think we appreciate the extent of the kind of flooding damage we've been experiencing. Could you offer some prescriptions for how we can kind of mitigate this risk?

MR. CIORRA: Right. That's next.

ASSEMBLYMAN GORDON: How can we work with the Corps to try to respond to these?

MR. CIORRA: Okay. Yes.

Just this last slide here on risk. You have nearly a million people in the State of New Jersey living within the 100-year flood plan. The 100-year floodplain also makes up about 20 percent of the geographic area of the state. Much of the flooding, of course, is in the urban areas.

Next slide.

So what can the Corps of Engineers do, and what are the rules and the responsibilities of the Corps? At the request of local communities and the State, Congress then directs the Corps of Engineers to get involved

to assist in addressing these problems, in partnership with the State and the local communities.

Next slide.

And how do we do that? We approach it -- we try to solve it with a balanced approach that looks at these three primary factors to develop sound solutions. First being economics: What is the cost of constructing these projects, and what are the benefits that they provide? And we have to do -- by law, we have to do an economic justification that shows that these projects provide benefits that exceed the cost of constructing them. Of course, we have to consider impacts to the environment, and look to ways to avoid or minimize impacts while constructing our projects. Or, in some cases, even improving the environment, if they can be done in conjunction with flood damage reduction measures. And lastly, and maybe most importantly, is the public acceptance. We have to work closely and cooperatively with the State of New Jersey -- in this case -- and the local communities to develop plans in partnership with them that are acceptable to the communities. Because without public support, of course, we would not have an implementable project.

Next slide.

So now, looking at-- I also have the map over here, which is hard to read. But basically, now in northern New Jersey, we have a series of studies and projects that are ongoing. And I'll get into the funding in a little while. But essentially, there's no one solution to solve or even minimize the flood damage reduction problems. It could be a combination of structural and nonstructural measures -- nonstructural meaning perhaps

buyouts in some cases, if appropriate, if applicable. Or, in other cases, it could be the raising of homes outside of the 100-year flood plan. Or it could be structural solutions such as the construction of levies, flood walls, closure gates, or pump stations.

Next slide.

And right now we have ongoing -- and I won't read through them -- but in the different major basins we have these inland flood damage reduction projects. Many studies -- a number of studies and construction projects, some of which are nearing completion.

Next slide.

Over the last several years, we've actually completed a number of projects. We heard some people mention earlier the Pompton Lakes Dam, up -- as part of the Ramapo River at Oakland project, recently completed; as well as others.

Next slide.

This is a picture of the flood gates on the Pompton Lakes Dam, completed this past Spring. We cut the ribbon on this project in early April, 10 days before the April nor'easter.

ASSEMBLYMAN ROONEY: How does this dam relate to the one that was discussed earlier, where it raises from the bottom? Is this one--

MR. CIORRA: Well, these are flood gates. They are raised from the bottom.

ASSEMBLYMAN ROONEY: Okay, okay. So it is raised from the bottom. So it's not a--

MR. CIORRA: So right away we saw a return on the investment of the project, in that it prevented approximately \$2.5 million in damages in the upstream community of Oakland.

Next slide.

Two other projects that have been completed: Molly Ann's Brook, channel widening and deepening project along with bank stabilization. This is in Paterson. This is one of those nonstructural projects we talked about. The Passaic River preservation of natural storage areas is where we buy undeveloped land and put a restriction that there will be no future development on that. And that really looks -- not so much currently -- but to make sure that the problems do not worsen in the future, the flood problems.

Next slide.

The Green Brook: This is in that Bound Brook community that we saw so many slides and photos of flooding. This is a levy that is being constructed around that community in order to protect it. And McKeel Brook is a smaller project that we constructed in Dover, in Morris County, in which we built box culverts and did channel work.

Next slide.

We also have a number of coastal studies and projects that are ongoing.

Next slide.

Wisest of which -- and this is that area that we saw earlier with the seawall and the waves over-topping it. This is a before and after of Sea Bright, New Jersey. This is one of the largest beach replenishment projects

in the nation -- over \$200 million. And we've completed 18 of the 21 miles, and this project has been extremely successful.

Next slide.

And now the funding, which is really the tricky part. We have an outstanding non-Federal partner in the State of New Jersey, as represented by the New Jersey DEP. Cost share for the most part: 35 percent of the total project cost, with State and local municipal funding. Appropriated through the New Jersey Legislature annually, of course, we have the stable Shore Protection funding in this state, \$25 million a year, as well as inland riverine funding.

Funding has not been a problem for the State, as far as matching their share of the projects. Of course, the challenge over the recent years has been the Federal Government coming up with the dollars to allow these studies and projects to proceed. And currently, we have competing priorities, both nationally and around the world, that have really severely cut and limited the Corps budget.

ASSEMBLYMAN GORDON: Excuse me. When you say priorities around the world, are you involved in projects in Iraq and Afghanistan, for example?

MR. CIORRA: Well, the Corps of Engineers is involved with it, but we're not directly competing with it, because that's military appropriations. But officially, when the President releases the budget in February, he mentions the war on terrorism, and this is a wartime budget and priorities need to be set. And the focus right now, the priorities as far as the Corps budget, is ongoing projects in construction -- to complete those first before starting new ones or completing ongoing studies. And really--

ASSEMBLYMAN GORDON: If I could just interrupt for a moment. We had -- I think it was Colonel Tuminello--

MR. CIORRA: Tortora.

ASSEMBLYMAN GORDON: Tortora -- sorry -- here to talk about the Corps project on the Saddle River. And we're told that despite all of the devastation that's been experienced here -- well documented by your slide presentation -- we're not going to see any kind of new public works project to deal with the flooding here until, I think, 2010. I mean, could you help us understand why this takes so long?

MR. CIORRA: Well, there's a process. And before you have a project, you have to do a study. A *feasibility study* is what we call it, where we--

ASSEMBLYMAN GORDON: I understand. A cost-benefit analysis and so on.

MR. CIORRA: Correct. An environmental impact statement.

ASSEMBLYMAN GORDON: Environmental impact statements; but--

MR. CIORRA: Right. So that process, if funds are available, can take two to three years. And unfortunately, over the last several years--

ASSEMBLYMAN GORDON: Why doesn't-- This may not be a very productive exercise to try to understand the history of this, but one would have thought, given flooding going back so many years, that the Corps might have been brought into this area earlier to do major projects, rather than dealing with them today when--

MR. CIORRA: Well, the Corps has been involved for quite some time. And like I said, some projects have been constructed. Some of

them had studies 30 years ago that for one reason or another didn't proceed, whether it was lack of support or environmental issues. And then they have to be resurrected.

ASSEMBLYMAN ROONEY: The flood tunnel, for example. How many years?

MR. CIORRA: Yes. And if you have a study that was done 30 years ago, we just can't take that, dust it off, and proceed. We have to update the economics, update -- I mean, environmental regulations have changed significantly in that time. So if you wait that long, in essence you're doing a whole new study, unfortunately. And all our regulations or laws really do not preclude us from doing that and going through that process.

ASSEMBLYMAN ROONEY: You know, just taking the Sparkhill Brook as an example, we had a meeting and it was a bistate arrangement. It was -- Bergen County was involved, Rockland County was involved. We all agreed -- in fact, you guys agreed -- that this was 100 percent eligible for 65 percent funding from the Federal Government. And we also went through the study phase -- it took three years. And you're absolutely right. And it's on your Web site. Look up Sparkhill Brook. And you had a preliminary study, and basically you listed, I think, *A* through *H* in possible solutions. And then we-- And actually, the lead agency was going to be Rockland County. Because like I said, most of the work, probably all of the work required, would have been in New York, not in New Jersey. It would have benefited New Jersey, because the way the Sparkhill comes down. It comes down from the west, comes across the state line, comes into Northvale, Rockleigh, then back out; and it goes north and

it flows into the Hudson. We're the one who get flooded. We're the lowest point. Everything was great, everything was eligible, but then we said, "Yes, we want to go forward." And they said, "Well, there's no money." Now, what is that all about, because we'd gone through the three years, we'd gone through the whole preliminary, and then we can't get any action.

DANIEL T. FALT: That -- CAP 205, I believe. I'm not sure; I can check up on that.

ASSEMBLYMAN ROONEY: Please.

MR. FALT: The Continuing Authorities Program is a separate, smaller program that each year, prior to 2005, the Corps had a discretionary ability to discretionarily budget that. And starting in 2005, Congress started earmarking that. And since there's statutory limits on that program, which happens to be 21 million for the entire country, and it was oversubscribed by earmarking by the Congress-- And therefore, we could only discretionarily spend that money.

ASSEMBLYMAN ROONEY: You know, what's interesting is that that process really ticks me off. For the simple reason that this would have to be earmarked by the New York Congressmen.

MR. FALT: Right.

ASSEMBLYMAN ROONEY: And it has pretty much no benefit to New York for them to clean their streams. All the benefit would be for New Jersey -- for my area, up in the upper part of New Jersey. So I can't see any of those people getting involved or getting excited about going and asking for an earmarking on something that's going to benefit New Jersey and cost them money, or cost them their share. This makes no sense.

And I give it to you to say, “Hey, this should be something that says there’s a problem.” It’s a bistate problem, and the Corps is the proper agency.

Rockland County volunteered to come in for that 35 percent share. They were going to do a flood management control anyway, and then I brought it to their attention, “Hey, check with the Corps.” They were very happy to see, “Oh, yes, we’ll get 65 percent.”

MR. CIORRA: Yes. I mean, Dan’s right. And unfortunately, the priority is probably for projects that are already underway, are further along in the process.

ASSEMBLYMAN ROONEY: I started this in 1999 or ’98.

MR. CIORRA: Well, I’m talking about projects that were actually--

ASSEMBLYMAN ROONEY: If you wouldn’t mind, please get back to me with anything you find and just give me something in writing. Show my constituents that I wasn’t BSing them on going for the Corps, and it was totally eligible.

MR. CIORRA: Yes, absolutely. Yes, exactly.

ASSEMBLYMAN GORDON: Mr. Ciorra, in the interest of time, it is getting a little late -- and I apologize for holding you off until this hour -- if you could expedite your presentation, we’d appreciate it.

MR. CIORRA: Sure. Yes. I actually was going to make one last point in this slide. Despite the Federal funding constraints, the Federal Government has invested over \$250 million in Federal dollars on flood damage reduction projects in the New York District of New Jersey over the last 15 years alone.

Next slide.

And just in summary: What is the value of these projects to New Jersey -- to have completed coastal and riverine flood damage reduction projects. Of course, reduce the flood risk to human life. They have a strong return on both the Federal and the State and local investment in that we show, through our economic analysis, that the flood damage reduction benefits well exceed the cost.

But there's still a lot of work to be done. We acknowledge that -- at this point we estimate there's about \$1 billion worth of projects that remain unconstructed in our district alone, in the pipeline. But again, funding is a major issue right now. And the State of New Jersey is fortunate to have a very supportive and active congressional delegation, both on the House and Senate side. And some of the representatives are here tonight. And they have certainly been helpful to keep many of these projects moving, but not at the schedule and pace that we really could use to get these projects implemented.

And last slide.

And if you have any more questions or are looking for more information, I encourage you to go to the Web site of both the New York District and the Philadelphia District Corps of Engineers for fact sheets, photos, maps, and a lot of other good information on our flood damage reduction projects.

Thank you very much for this opportunity.

ASSEMBLYMAN GORDON: Well, gentlemen, thank you very much.

I do appreciate your patience for waiting as long as you did.

Assemblyman Rooney, any further questions?

ASSEMBLYMAN ROONEY: No. We've been dealing with this flooding in New Jersey for a long time. And one of the things that seems to be a thread through the whole thing is the development that's occurring. Anytime you have any development upstream, I don't care what you do about it, some of that silt comes from that development, comes into any of our streams, and it starts to silt up and it keeps building up and building up. We have streams right now that originally -- you know, you had to channel. You don't have channelization anymore. You have -- basically, this keeps getting wider and wider and it overflows the banks. We've got wider and much more shallow streams. The solution is to get in -- and the DEP doesn't like to hear the word *dredging*. That's the one thing that they hate to hear, but it's necessary. We've got to go back, and we've got to channelize some of these streams, because that's the way they were. They took care of the drainage from our properties.

And we've got to get a better communication line from the municipality to the DEP and back again. We've got to break down the barriers that have been, basically, hamstringing our municipalities from solving their own problems. If we can get at least the desilting, desnagging, making it 50 feet wide, making it maybe 18 inches -- and let's turn a blind eye if it's a few inches more. But we've got to preserve the tranquility of our people. We've got to protect them against these floods.

Like I said, I get endorsed every year and every time I run by the environmental community. But I would rather get endorsed by the people I represent, for the simple reason they're the ones that are at risk.

Thank you, Assemblyman Gordon. This is great.

ASSEMBLYMAN GORDON: Well, we do have one more witness.

ASSEMBLYMAN ROONEY: Oh, I'm sorry. I thought we were wrapping up.

ASSEMBLYMAN GORDON: No. And I apologize to that witness, but someone had to be last.

Dr. Anthony Broccoli, from Rutgers. You get the award for the patience of the evening.

ASSEMBLYMAN ROONEY: My old alma mater.

ANTHONY J. BROCCOLI, Ph.D.: Thank you very much.

I think in the interest of time what I'm going to do is, rather than hook up my laptop to the projector, I'm just going to turn it on so that it can cue me for what I need to say; and anybody who is sitting back there can look over my shoulder and see my slides maybe a little bit.

ASSEMBLYMAN GORDON: Well, in return for that, I'm going to contact the Rutgers Foundation and make a contribution. I appreciate that.

DR. BROCCOLI: We'll appreciate that.

Well, I want to start out talking a little bit about the basics here. And one of the first points I want to make is that we've heard a lot about a number of different topics tonight. But one thing that is very important to remember is something very basic -- and that is, we get floods because it rains very hard. And so that ultimately, no matter what we may do to try to mitigate the effects of floods, one thing we can't escape is the fact that every now and then we get a very intense rainfall event, and that's what's ultimately producing the floods that we talk about. So an important

question is, how will some of the changes in climate that we expect to happen in the future affect flooding here in New Jersey.

And we've seen, in the previous presentation, chapter and verse about the different flood events that have happened in New Jersey, some of them very recently. And one of the terms that we've heard a number of times tonight is 100-year flood, 500-year flood, 50-year flood. One thing to remember is that we can only make sense out of these statistics if nothing is changing. If the climate today is the same as what it was in the past, then we can use the past to tell us how often certain big floods should happen. If land use today is the same as it was in the past, then the past is a guide to what will happen in the future. But neither of those things is true. We know, as many people have discussed tonight, including members of the Panel, that land use has changed -- that there's more paved-over areas, less forests, less wetlands, and that that makes the water get to our rivers and streams faster, and makes floods more intense.

But in addition to that, the climate is changing. Global temperatures have risen by, roughly, 1.5 degrees Fahrenheit during the 20th century. They're rising and they're expected to continue to rise, in large part due to the amount of greenhouse gases that we put in the atmosphere from burning fossil fuels. Because fossil fuels are a major source of energy, this is something that we can change only slowly. So we're going to continue to burn fossil fuels. We're going to continue to put these greenhouse gases in the atmosphere, and that's going to make the climate warm.

Now, why does this matter for flooding? Well, for an answer to that, we can look to the work of something called the *Intergovernmental Panel*

on Climate Change -- that's several thousand climate scientists from around the world who have been working for the last six years to evaluate the science of climate change and to explain how that will impact us.

Early in this year, February of 2007, they released their report, and one of the conclusions of their report, which I'm going to read now verbatim, is that "There is an increased chance of intense precipitation and flooding due to the greater water-holding capacity of a warmer atmosphere." This has already been observed and is projected to continue, because in a warmer world, precipitation is concentrated into more intense events.

So simply put, rainfall occurs as part of a cycle in which water evaporates from the ocean, goes into the atmosphere, forms clouds, and falls back on the land, runs off through our rivers and streams back to the ocean. When we make the climate warmer, this cycle becomes more intense. And hence, the possibility of more intense precipitation events.

We've seen in New Jersey, as was documented in the previous talk, a lot of very intense precipitation events leading to flooding recently. Earlier, the gentleman from the U.S. Geological Survey showed you some river data for Trenton. When you look at the maximum flood events for each year on the Delaware River in Trenton, three of the largest floods have happened since 2004. The second largest flood on the Raritan was the April nor'easter. The first, number one flood, was Floyd in 1999. The April 2007 nor'easter was responsible for the highest water levels on a lot of streams here in Bergen County. We can't say at this time that this is unequivocally due to global warming. But what we can say is that events like this are going to happen more frequently in the future.

Now, another aspect of global warming is sea level rise. At Atlantic City, where we've been measuring sea level for almost 100 years, sea level has risen by about a foot during the course of the 20th century. Our best estimates of future sea level rise suggests that during the 21st century they'll probably rise about two feet here in New Jersey. That's happening for three reasons: One reason is that warm water is less dense than colder water, so that when you warm up the ocean, it takes up more space, even if there isn't any more water in it. But there is more water going into the ocean because the ice caps and glaciers around the world are melting. And that's the additional water that flows into the ocean.

The real wild card in the story is what's happening in Greenland and Antarctica. These are places that are covered with giant ice sheets thousands of feet thick. Every now and then you hear in the news that a piece has broken off the size of Rhode Island -- they always seem to compare it to Rhode Island -- and that ice, when it goes into the ocean, raises the level of the ocean.

Why is this important to flooding? Well, first of all, there's coastal flooding -- the immediate effects of raising water levels. But in addition to that, higher water levels in the ocean make it harder for rivers and streams to discharge their water into the ocean. In other words, it makes those rivers and streams back up and makes it harder for the water to leave the areas that are flooded. This was very prominent in the October 2005 storm that affected the northern New Jersey coast, where there was a combination of very heavy rain, but also onshore winds that raised the level of the ocean and made it harder for that water to run off. People had to be

evacuated from their homes as water reached five and six feet high in their living rooms.

So since I'm the last talk, I feel a little bit guilty about saying something that could be interpreted as being very pessimistic. But I don't necessarily see it that way. I see it as a way of emphasizing that whatever problems we have today, those problems may be felt more acutely in the future, which makes it important and urgent to try to deal with them. And I'm not an expert on the policies for dealing with them, but I can say that it's very likely that the fundamental issue -- the fact that heavy rain causes flooding -- will probably get worse in the future, and we need to prepare for it.

So I thank you for inviting me, and I appreciate the opportunity to talk with you.

ASSEMBLYMAN GORDON: Well, thank you very much.

I actually think your comments are a perfect coda for the evening, because I think it really makes it imperative for us, at least in our little part of the world, to try to do what we can to mitigate the effects of flooding, given the fact that there are all these major factors -- exogenous factors, global factors -- at work that are just going to make the situation more difficult. So I appreciate your patience in waiting and in presenting these very important comments.

And Assemblyman Rooney, would you have any final comments?

ASSEMBLYMAN ROONEY: I had my final comments a little earlier. I'm sorry.

ASSEMBLYMAN GORDON: Okay.

In the interest of the hour, I am not going to make any final comments, other than to thank everyone for being here.

Is there anyone else who would like to speak? (no response)

Thank you.

Seeing none, I'm simply going to thank you all for coming.

I want to thank the staff for their contribution to this evening. And my hope is that we will continue this process and produce some legislation to bring some results for the people in New Jersey.

Thank you all very much.

This meeting is adjourned.

(HEARING CONCLUDED)