BI-ANNUAL MEETING OF THE NYS DISASTER PREPAREDNESS COMMISSION
December 17, 2018

Chairman**:** This is our second meeting with the New York State Disaster Preparedness Commission and I want to start off by welcoming our new Co-Chair Adjunct General uh, for New York Ray Shields. Can we have State Police present the colors please? General if you could lead us in the pledge of allegiance after they're set up.

General**:** I will. I pledge allegiance to the flag of the United States of America and to the republic for which it stands one nation under God indivisible with liberty and justice for all.

Chairman: Okay, Skip thank you very much for the Color Guard.

Skip: You're welcome.

Chairman: Taking a quick roll call. Identify your name and the title of who you are representing your organization. Aging? Ag and Markets?

John Ball: John Ball Emergency Manager.

Chairman: OCFS?

Steve Taylor: Steve Taylor.

Chairman: DOCS?

Dan Marticello: Dan Marticello.

Chairman: DCJS?

Todd Murray: Toddy Murray.

Chairman: Department of Education?

Sharon Cates-Williams: Sharon Cates-Williams.

Chairman: ESD? Sedra – S E R D A? You know Segra? NYSERDA?

John Williams: NYSERDA there you go John Williams.

Chairman: DEC?

Matt Franklin: Good afternoon, Matt Franklin.

Chairman: Well Matt you seem to be very alert today.

Matt Franklin: I am.

Chairman: Maybe the rest of us could get there. OFPC?

Skip Nearing: Skip Nearing.

Chairman: OGS?

RoAnn Destito: RoAnn Destito.

Chairman: DOH?

Sally Dreslin: Sally Dreslin.

Chairman: HCR?

Michael Weber: Michael Weber.

Chairman: ITS? Department of Labor?

Lynn McLaughlin: Lynn McLaughlin.

Chairman: OMH?

Moira Tashjian: Moira Tashjian.

Chairman: MTA?

Owen Monaghan: Owen Monaghan Chief of Police.

Chairman: DMNA?

Ray Shields: Ray Shields.

Chairman: Parks?

Mark Paluto: Mark Paluto.

Chairman: OPWDD?

Rich Bell: Rich Bell.

Chairman: Port Authority? PSE?

Tom Congdon: Tom Congdon.

Chairman: State Police?

Stephen Smith: Stephen Smith.

Chairman: Department of State?

Eric Bradshaw: Eric Bradshaw.

Chairman: Thruway Authority?

Matt Driscoll: Matt Driscoll.

Chairman: DOT?

Todd Westhuis: Todd Westhuis.

Chairman: Victim Services?

John Watson: John Watson.

Chairman: And the American Red Cross?

Richard Hajeris: Richard Hajeris.

Chairman: Okay great. Thank you everybody, Jen Wacha are you here? Can you come up and introduce yourself? She's our new Deputy Director of OEM. She comes from Westchester County. She will help us today and hopefully every day.

Jen Wacha: Good morning.

Chairman: Do you want to mention anything about your history or…

Jen Wacha: Well I'm just happy to be part of the team. I came from Westchester County as part of their Emergency Preparedness Team, it's exciting to be here.

Chairman: Thanks Jen.

Female: Welcome.

Chairman: Okay and I have a lot more reading responsibilities than I thought here. We have to do these statewide hazard and mitigation plan adoption. You all got, received a letter. If there's any questions, we're supposed to take a, are we taking an official vote on this? Yes?

Male: According to the letter, yes.

Chairman: According to the letter official vote. Okay does anybody have any questions on the resolution? Am I taking this vote or is, is or is somebody else? Am I doing it? Same?

Female: Do you want us to put it in, you want, want us to offer a resolution so you can second it?

Chairman: Yes, please.

Female: Okay, so moved.

Chairman: Done. Are we good?

Female: Now we take a vote.

Chairman: Alecia what do we need do, do I, am I documenting this vote? All in favor? (Aye) Great. Okay can we go to the move, we move to the presentations? National Weather Service please?

Male: Commissioner just for the record I second the…

Chairman: Thank you.

Steve DeRienzo: And now let's see if I did this right, oh I did. Good afternoon everyone. Steve DeRienzo here from the National Weather Service in Albany and I'm going to just run through a quick winter weather outlook and talk about some of the winter weather hazards. Outline uh, we'll go over last year in review, a quick look at the outlook for this year, the standard winter weather hazards and a quick summary.

So, last year snowfall across the state was above normal. The highest amounts were east of Lake Erie and Lake Ontario over (200) two hundred inches with the lake effect snow but uh, most of the sites in New York had above average snowfall last winter. If you're wondering about trends in snowfall, I've put this line uh, this, these charts up here. New York City the snowfall has actually been increasing since 2002. They've increased about (8) eight inches per year since 2002. That was when they reached their minimum. Albany's going the other direction. Um, snowfall has actually decreased about (10) ten inches since 1985 and you know annual average snowfall has actually decreased. And uh, Buffalo is all, also decreasing a bit they've gone down about (7) seven inches over the, since uh, 2005 I guess, so. People always ask us about trends so it looks like downstate snowfall is increasing, upstate it's decreasing for what it's worth.

Okay temperatures last winter generally below normal. The first half of the winter was really cold. We had the really bitter cold stretch right after Christmas last year. Couple weeks where temperatures were below (0) zero pretty much every day and then it moderated some so the first half of the winter was well below normal. The second half of the winter not quite as much below normal but overall we were colder and snowier last winter than normal. So, the question is, what will this year be like? And uh, we, we refer to the Climate Prediction Center's forecast. Unfortunately, they only go December through February. Doesn't really work for Upstate New York where winter often starts in November and lasts through April but we'll add some extra stuff to try and get a better picture. So, the original outlook is issued in October. Um, they had higher chances for above normal temperatures for the winter this year. So far it's been colder than normal. They, they released an update in um, November and actually less chances of being above normal. A little bit above normal Upstate, near normal on the Downstate Area.

For precipitation pretty much near normal was the original forecast in October and there was a minor change with the November update chances for a little bit a, to be above normal in the Downstate Area, New York City/Long Island Area. So, uh, overall um, most of the state, near to

slightly above normal in temperature and precipitation near to maybe a little bit above normal when you get Downstate. So, that's December through February. Again, winter often lasts longer and this thing is not, there it goes. So one of the things we like to look at um, is the, and so the El Nino, La Nina and there's a reason we look at this but this is really the, the ocean uh, temperatures in the center of the Pacific Ocean has the biggest impact on our weather. And that little red box is where we look at the weather or the water temperatures and believe it or not that area of the Pacific, the ocean temperatures have a big influence on our weather in the wintertime. So, the biggest influences come when you have the big spikes either plus or minus that are greater than plus two or less than minus two. Those are our brown winters across New York State or even Upstate if there's very little snow um, last one was 2015, 2016. There was very little snow across the state. The lake effect areas always get some but even there, there wasn't much. When, when the ocean temperatures hovered near the (0) zero line or near normal, we usually have winter. It starts in November and it ends in April and there's periods of snow and cold so that's what we have this year so I would expect a relatively normal winter.

And this is the official forecast. There's uh, the Am, the American Climate Forecast System on the left is trying to strengthen the El Nino to where it becomes a moderate which would probably lead to a relaxation of the winter. Uh, maybe some moderated, you know moderation for at least a month or so and then winter coming back later in the year. The International Suite of Models says it's peaked out and it, and it, it's going to decrease so I would expect more of a normal winter as opposed to the, the uh, to the American Climate Forecast there. I don't know this clicker is not uh, there we go uh, went too far. Come on. There we go.

Alright so, for the remainder of December the, the uh, orange colors indicate warmth so if you, it's hard to see. This is, these are North American Charts but for New York State generally above normal for the rest of December and um, into January closer to normal and then by February a return to below normal. So, we started out below normal in November. The entire state was below normal. December so far has been near to slightly below normal. It looks like the second half of December's going to be warmer. Back to near normal in January and maybe a very cold uh, February.

As far as precipitation, the rest of the month the, the forecast is generally dry um, or at least below normal precipitation. Uh, the storms have been tracking south of the area. The storm track had brought a lot of snow to the Carolinas a couple of weeks ago. This past weekend there was some heavy rain Downstate once you got south of Poughkeepsie an inch or uh, an inch plus of rain. And it looks like that's going to continue that kind of a storm track until maybe January when we see wetter conditions and then by February more cold and dry again.

Okay winter hazards, um, the pictures kind of show the different hazards. We get snowstorms, ice storms. We get stronger winds in the winter with the powerful winter storms and we can get flooding and ice jams in the wintertime. Uh, the impacts of snow at, at base level snow biggest problems are transportation issues, you know slippery walking and driving conditions.

But high snowfall rates cause problems and that's when the snow accumulates very rapidly on the ground. It also makes for very low visibility. It's hard to see to drive. Hard to see to plow. We had this in early November in the Downstate Area in New York City Metro um, and up into like Poughkeepsie with that very strong um, uh, ra, rapid accumulation of snow. There was three to four inches per hour the snowfall rates over a two or three hour period and it led to a lot of problems. So, the snowfall rates cause problems. The high snowfall rates, early snows in October, November it only takes three inches of snow when the leaves are on the trees to down trees and cause widespread power outages. The last time we saw that over a widespread area was in 2011. The wind driven heavy wet sticky snow last year in March around the 7th or 8th there was um, quite a bit of that in uh, again, from Poughkeepsie, Dutchess, Ulster Counties south a lot of power outages. Snow squalls are their own problem um, they're the biggest cause of pileups on Interstate Highways across the U.S. We na, National Weather Service now issues snow squall warnings and then, of course, the blowing snow. Snow when it's light and fluffy blows in the wind. The DOT's can treat the roads, get them all clear and then the wind blows the snow back on the roads. Sometimes we also get the prolonged accumulation periods you know. Every few years Upstate you get one to two months where the snow keeps getting deeper and that can lead to problems with buildup on roofs and now roof collapses.

Boy this thing is going to give me a hard time today. Come on, there we go. Okay ice, freezing rain, the glaze, the clear glaze again a trace of ice causes slippery driving and walking conditions. When you get up to about a quarter inch you start to lose branches and you start to see power outages. A half inch you start to get numerous power outages. Uh, and then when you get up to an inch you get widespread um, outages and they can last up to a week like December 2008 was the last widespread ice storm and it occurred over Eastern New York and most of New England. Of course, any wind with the ice can make matters worse. Uh, winter storms are generally a lot stronger than the summer storms. We get severe weather and thunderstorms in the summer but they're usually isolated you know hit and miss kind of things. The winter storms are much larger. You can get wide, again widespread tree damage, widespread power outages uh, becomes the biggest threat with the, the large scale windstorms in the winter. And then the winter flooding we get periodic thaws in the winter or sometimes winter will last until the spring and then we get a big break up in March or April and with the break up you can get ice jams. Sometimes they refreeze in place like the one on the Mohawk River last year in um, January stayed there until the end of February. The, the uh, jams can act like temporary dams and create lakes and cause flooding like you see there in the bottom picture and then they can break loose and cause you know flashfloods like a dam break down below when they, when they finally break uh, so they can be quite, quite hazardous.

Oops. Lake Effect snow is kind of its own animal so to speak, it's its own thing. Uh, cold air coming across the Great Lakes can produce these narrow bands of snow uh, south and east of both Lake Erie and Lake Ontario very heavy snow again, high snowfall rates. Uh, most of the state can be clear and dry or partly sunny and dry but you have a couple of narrow bands one off of Lake Erie, one off of Lake Ontario and you're getting significant snow maybe in the

Buffalo area or the Syracuse area, Watertown. So, again these cause problems on interstate highways where motorists can drive from a dry road into a whiteout. That can be a big problem.

Okay the final hazard I have is the extreme cold. We saw a lot of this again around New Year's uh, last winter. Frost we kind of define this as statistical component to this we kind of define this as three days in a row where the daily average temperature is about two standard deviations below normal. The reason we use that is because you get to the limit of, of the design standards um, furnaces, heating equipment uh, just things that are buried in the ground or set to design standards. When you start getting this cold, you've gone beyond those average standards so you start to stress uh, buildings. You start to stress water mains, water pipes, um, heating systems and you start to see problems. You get frozen water pipes in houses, water mains will break under streets. Start to see an increase in fires because people are cold uh, the heating systems can't keep up. People start doing silly things uh, like using torches to thaw water pipes and things like that and you start seeing problems. Uh, you get some carbon monoxide issues as people bring heaters inside that really belong outside.

And the last one is windshield. When wind is moving very cold air it moves the heat away from your body quicker than just the cold alone and your flesh can literally freeze pretty rapidly if you're exposed to cold air and strong wind. And most of the state uses minus twenty-five degree wind chills to close schools. So when you start getting down in those levels you know that you know significant uh, cold is occurring.

And finally just to sum up it looks like and we've had a lot of winter already, November was a very snowy month. A lot of places had over forty inches of snow especially when you get up in the Adirondacks and some of the lake effect belts already in November. December there hasn't been as much snow. We've kind of calmed down a little bit and maybe it'll stay quiet through the end of the month if some of the forecasts are correct. Um, lake effect snow is always an issue um, downstream of the lakes are where you, we get the most snow and uh, we'll have to see how the El Nino uh, plays out the rest of the winter but I would expect winter to last like it normally does into March and April especially Upstate.

So with that I'll take any questions. Does anybody have any questions? Alright hearing none um, leave it for the next uh, speaker. Thank you.

Chairman: Thank you Steve. Who we have next, Nickel. Nickel busted one of his wheels uh, in the last month or two.

Male: Yep.

Chairman: Still was able to walk up there pretty briskly, impressive, thank you.

Nickel Natarajan: Good afternoon uh, Nickel Natarajan. I'm one of the Deputy Directors of the State OEM and I'm going to be providing the winter weather operations update and what's

occurred over the past twelve months in regards to Emergency Management Preparedness. So, obviously um, when we look at Emergency Management one of the most important things we do in the state is Emergency Management. That's something that the Governor's addressed on numerous occasions in regards to response. This particular uh, picture from folks who don't remember was from Buffalo from a few years ago when we had some lake effect snow coming in so that was uh, Snowvember if I recall correctly about four years ago. So, obviously our role with every incident we continue to enhance our approach to Emergency Management and we'll talk in a few minutes about some of the ways we've done that over the past twelve months. Our key role is to support the local response, ensure their state response is appropriate um, and as for leaning as possible and is uh, um, is appropriate for the particular conditions that exist.

One of the key pieces to that is how we reduce our reaction time. We want to be able to be out there in front of the event if it's a planned event. Want to make sure that we're for deploying assets, for deploying personnel and that's something that we've uh, definitely done and uh, increased the frequency of over the past year. Ensuring that our resources are coordinated and we'll talk about how we've done that as well with the addition of some additional applications in addition to uh, procedures and processes and be proactive. Um, we've, this is New York State we deal with winter weather every year. We should not be in a reactive state. We should know when the storms are coming. We look at the weather reports as they come in and there's no reason we shouldn't be proactive as we go forward. So, our role is obviously early and often activation of the state EOC. One of the things that our DPC Agencies have seen and our counties have seen is uh, an increase in activations of the EOC to a level four to our enhanced monitoring. We've brought not only our OEM's stopped in but in certain instances we've even increased up to a level three and bring in a handful of agencies to uh, access that response. Advance deployment of state personnel to the regional operation center including the Governor and other executives as needed. We've seen the Director of State Operations, other key staff from the Governor and the Governor himself out there ahead of the storm uh, in the impacted area with boots on the ground to ensure coordinated response of all the state agencies and again to support the locals and the counties and the residents that we all serve. Advance deployment is stockpile resources. We've ensured that not only do we have our assets in the stockpiles but prior to an event, they are actually forward deployed to the impacted area. So, it's not enough just to have them sitting in ten stockpiles throughout the state, we actually mobilize them, identify the staging area near the impacted area and get assets moving and on the ground prior to the event occurring. And this isn't just an OEM thing. This is something that's on a conjunction with numerous state agencies whether it's through a DOT, DEC and many others. So, just some pictures from our response posture. Again, it's a multi-agency response. It can't be done with just one agency.

Local governments are obviously critical to Emergency Services. We're there to support them and uh, ensure that they can respond and meet the needs of the people that they serve. They are the first line of defense, they'll be the first ones to respond and the last ones to leave. Local

chief executives again are responsible for the development and implementation of those plans. One of the things that we've done is to help support local planning efforts to ensure that they have technical assistance and any additional staff that we can provide uh, to provide that assistance whether it's plan writing, expertise uh, in continuity of operations and uh, different aspects of response planning, we're able to do that.

So, some addi, uh, specific advances over the past twelve months DPAT being one of them uh, Disaster Preparedness Asset Tracking. One of the key uh, tools that was put together at the Governor's direction over the past year was this web-based tool of DPAT. Um, it came about from a simple question of "Can you tell me how many trucks you have in the State of New York?" We need to be, have a centralized resource to uh, be able to provide that answer in a fast and rapid manner to re, uh, to get those assets on the ground where they're needed. DPAT allows us to do that. We no longer need to poll a half dozen state agencies to find out what are the status of all the snowmobiles throughout the state. We're able to go to a centralized repository that all the states feed information into and answer that question in minutes versus hours. And all that is again in an effort to help support that local response and the people we serve. If we know what's available and where it is, we can get it moving faster for those no notice events. It consolidates that emergency response of rolling stock across numerous state agencies across the state and this is updated in real time by the agencies. So, it provides us a true picture of what we have, what's available and where is it as we go through various responses. And again the key part of that is allows for a faster deployment of these assets.

The EMOP – The Emergency Management Operations Protocol. It ensures that state agencies have an operational plan to respond to emergencies. The, some of the key portions of the EMOP and they've currently either been completed or in the process of completion uh, by (41) forty-one different agencies, authorities and commissions and it provides some basic foundations across all of those entities. Some key aspects such as notification um, of events, reporting of events and key response structures for those agencies. When are they going to activate uh, to di, various levels are all documented in the EMOP. The EMOP also provides for flexibility within those agencies to take into their consideration their uniqueness for their own operations but allows it to be documented, plans are consolidated, plans are reviewed and um, and it really sets the stage to ensure again a more cor, uh, collaborative response throughout the state.

Continuity of operations planning. All the state agencies are currently going through an updating their coup plans something that they've done over the, every few years they go through and update their coup plans and again it ensures that key services are maintained should there be a, a disaster whether it's a power outage, whether it's a major snowstorm, whether it, the, there's an issue with traffic and staff can't get in. How can they ensure that key services are continued for the people that we serve? And their coup plans help address that and they ensure that that occurs as we go forward.

And training and exercises one of the things that we're also doing is continuing to work with state agencies and local partners on training and exercises for a wide variety of topics whether it's flooding, tornadoes, ice jams or what have you, we're ensuring that we provide not only technical expertise, we're also collaborating and coordinating with other state partners who have expertise to bring to bear. Again, it's not just an OEM thing. One of our PP's is bringing the other key partners uh, to provide all these services that we do whether it's again through a DEC, uh, State Health or other agencies.

And we all know winter's coming so one of the things that I can honestly say, we are definitely in a much better position this year than we were last year. We were in a great position last year and we're in a better position this year and we look forward to being in a better position the year after and we can do that with the cooperation, collaboration of all the agencies at the table. So, thank you all very much.

Commissioner: Thanks. Joanne?

Joanne: Okay thank you Rodger. I'm Commissioner DeStito from OGS and I'm welcoming Molly Larkin my Deputy Commissioner of OGS Design and Construction and Sean Carroll Chief Procurement Officer of um, OGS. And they're here to really um, introduce our website and what our website looks like during an emergency um, response and when we are in that state and what information is available um, on our website, what contracts and what each of our business units does. So, Molly's going to start with design and construction, what is available to state agencies in response and what is um, also available to local governments with regard to contracts. So, thank you Commissioner for allowing us.

Molly Larkin: Thank you Commissioner. I'm Molly Larkin with the OGS Design and Construction Group and as the Commissioner said we have um, a couple different business units in OGS that help with either emergency preparedness or emergency response. Design and construction is one of those groups and when um, there is an emergency declared in the state, this is our main webpage. And we decided to make this in conjunction with our business unit so that we have a better opportunity um, to have all of our resources front and center. So, Sue's going to help me and click on the learn more. And um, we have three separate categories. Each category is basically who you might be in that emergency situation to be able to use those resources. The one for Design and Construction um, would be under agencies. So, Design and Construction by legislative authority can only do work on behalf of state agencies and authorities and we help in emergency um, contracting situations. So, I know the National Weather Service talked about water main breaks, we do a lot of those and then also OEM had talked about Snowvember. Additionally, we helped very much so in Snowvember. So, although there is the disaster that most uh, a lot of people are aware of, we also do (24/7) twenty-four seven (365) three sixty-five emergency response for our clients say if a tree falls on a powerline, a water main break but you know those individual one off's as well. So, in this situation under the construction emergency section that is for design and construction, this is just an overview of what the constructions the emergency is as well as this is a great resource for even our myself sometimes

but also our client agencies who use the process but may not even have their, all of their information ready with them. The Declaration of Emergency Form to request services through us as well as all of our contact lists is right up on here and you can get it in the mo, on your mobile phone as well in case you don't have access to your laptop or anything. So, under the list of authorized agencies each agency that we do work for sends a letter to our Commissioner updating who is authorized to declare an emergency through um, Design and Construction. These, so if you ever have a list of your own agency who's authorized, this is your list right here. If you are not authorized, make sure you get in touch with someone who is authorized to declare that emergency. And then at the bottom there is also and this is ong, updated ongoing so you can send it in whenever you have updates on this and we try to reach out at least once a year to make or if we're aware of any changes to make sure that that's up to date. But um, Sue if we could go back to the previous um, previous one. Also, if you scroll down, down below is also the who to contact. So, who in Design and Construction to contact and this could be at 2:30 AM and you haven't gotten a chance to put that paperwork in but who to call um, even if you have a question associated with this. Paul Agneta is our emergency coordinator followed by our Assistant Director of Construction and then regionally we are across the state. So, you would contact the regional director um, in your area of the state um, usually our clients know who those people are cause they work with them in our the normal course of business anyway. But um, all the names, contact information, email address and everything associated with it. Even at the bottom, if you keep scrolling down, it even has um, this section for information for contractors on how to apply because this is different um, types of bidding than the normal design bid build that you would be used to. We pre-vet these contractors and they are on a list so that we know that they could show up in several hours and they're already vetted. So, um, we have extensive lists throughout the state by region and by discipline. So, you know, we could have a high voltage or an, a, um, asbestos or anything associated with those different types of trade lists so that we ensure that we get the right contractor on board at the right time. But this is a great website. Um, most people who use our program are already very familiar with our program. But this also helps just have it right on the website so that you know if um, there's a SUNY campus who may not be as familiar with it. All that information is right at their fingertips. And then if we go back to the fifth section, I'll let Sean take over for anyone outside of the agencies as well.

Sean Carroll: Good afternoon uh, my name is Sean Carroll. I'm OGS's Chief Procurement Officer. Uh, like all of you, OGS and OGS's contracts are there all the time. So, in a non-emergency situation when an emergency has not been declared, all of the things we're going to show you still live on our website. Um, they're, they're a great resource to the preparer part of what, what all of you spend most of your time doing. During an emergency, this will become the homepage and everybody will be able to access that um, a, a, as their first contact with OGS. And then obviously if, if you're in the recover stage, the, the all of these contracts will be on there again. We did bring a list of some of the contracts that are available through this website. Is it okay with the Chair if I distribute them?

Commissioner: Absolutely.

Sean Carroll: Great. Um, so, if we could click on the purchasing and service contracts link? Um, so in terms of resources for emergencies and so if you can scroll down a little bit um, you can see that we've categorized our contracts uh, into a variety of categories and I'm going to ask Sue to just click on uh, either food contracts or, that's fine. Um, so what you're seeing is, is, sort of the classification of, of contracts. Then you're seeing the individual contracts. Each of these links goes to the contract document. It has all of the vendor contact information and all of our staff's contact information, all of um, you know, any of the twenty-four hour contact information that's been provided on all of the contracts. So, if you're in the prepare stage, this is a, this is a great location to go see whether our contracts have the things that are coming up in your training exercises that are, that are coming up in your thought process are already on contract. It's also an opportunity to if you're building a stockpile or if you're just putting your emergency plan together. All of these contracts do have expiration dates so if you're including these in your preparedness plan, um, we would appreciate the, just periodically keep those current or let us know and we can let you know when a new contract comes out so that your plan always stays current with the right contract information. Um, it's, can we try the Public Health Contracts one? Okay, so you can see here um, a lot of this you, you would use both in, in preparation and you would use it uh, in response and recover. So, we're very excited about these contracts. Um, we don't claim to have everything everybody is going to need at every time. So, as you're looking through them if you find gaps in those contracts, I'd like to know. The contract managers would like to know. We'd like to do everything we can so you can rely on these contracts in an emergency. Um, and some of them are a little bit complicated to use. There's a lot of vendors on them. Our staff is always available either through our Customer Service Division or the contract managers themselves. Uh, we do a, we go to agencies. We teach everybody how to do, uh, how to use the contracts um, and we always take feedback on how they're working for you and, and how they're helping you to be ready. Um, these contracts are not just available to state agencies so anyone who is authorized to buy through an OGS Contract which I believe includes all of you uh, including the American Red Cross. Um, so there are not for profits, uh, state agencies, state authorities, local governments, local municipalities. So, if part of what you're doing is coordinating uh, local governments or other entities, all of them can leverage the same contract. You can do it together or you can do it independently and I, that's another way that you can incorporate that in uh, into your planning process. So, uh, I think the, you know, most of the contracts are self-explanatory. We're always happy to ask questions about them um, and then Sue, I think if we can go back? Um, so then uh, higher hazardous in, incident response equipment, that's its own suite of contracts. Uh, there is considerable depth and breadth of access to equipment and resources um, for the kinds of things that, that you folks are always conscious of and preparing for that's got its own link on here um, because the contract is so significant and so broad um, that we pulled it out and we put it right on the, on the, homepage. So, please when you're going through the

contract also take a look at that um, and we do have contract managers that just do hire all day um, so they're very uh, very well versed in that.

Um, so we wanted to talk about what was available to state agencies, then what was available to everybody and then we have some add, additional courtesy resources that we provide to folks and I think Molly is going to talk about those.

Molly Larkin: And before I talk to those, I just want to add um, Sean said he would help with any of his contracts, same goes for Design and Construction. If there's an agency that needs additional information or an intro to your staff, I know DOCS has had us come to their Plant Superintendent Conference before and I think it went very well. So, we're always open to that. But these public resources um, you know for the emergency just on the emergency side, we do over um, average over three hundred contracts a year roughly seventy-million dollars. So, it's a pretty big program. Um, but on the public resources side, we have if um, Sue clicks on it, the previously approved con, construction vendors that is just um, a very cumbersome Excel Spreadsheet but you don't have to click on it but it's there. Um, that's just an indication of the vendors that have um, are reputable, um, that have done work with us before that have the insurance requirements and have all the requirements to do public work in the state that have previously done work for us. For if there's a disaster, you know, like Snowvember and some homeowners are like oh well this roofer said that they're reputable. That might just be a resource for them to be able to um, see who has been approved to do work under an OGS contract in the last year. It's not an endorsement, it is just informational that they have passed our vendor responsibility process and might be a good reference. So, if we could just go back into the um, main page Sue? As um, Sean had said, this is always on our website. You can get through it either through um, the procurement um, tab on the top or the design on the construction tab because those are the two business units that deal with this but again in an emergency situation, this will be the banner on our webpage. And I know that in the past agencies have um, referred other people to the OGS website with all of this helpful information in one spot. Does anyone have any questions? We're always available if you want to catch us afterwards but thank you for letting us present today um, we appreciate it.

Commissioner: Sean, Molly thank you very much. Mike Rowley from the Department of Public Services.

Mike Rowley: Just give me a moment here I would appreciate it. Good afternoon um, uh, I'm Mike Rowley with the Department of Public Service and with me today is Mike Sprague from the uh, Division of uh, Homeland Security Emergency Services – OIEC. Um, want to thank you for this opportunity to uh, report to you um, uh, the findings of our study on the feasibility of uh, streaming EAS Alerts. Uh, it's, it's really a combined effort between our offices um, and, and also working with um, some of our Federal Partners to, to look into the issues um, with regards to uh, the Feasibility Study as required by the law. I'm sorry I'm multitasking here. Uh, the scope of the um, study um, uh, back in October of 2017 uh, the Governor signed legislation uh, requiring that the Public Service Commission um, along with the Division of Homeland

Security um, and in consultation with the Disaster Preparedness Commission um, conduct a study into the feasibility of streaming EAS alerts. Um, so, uh, our presentation today uh, we hope uh, we wanted to present the issues to you um, and to satisfy one of the requirements uh, of the study and, and possibly get feedback if we can.

Uh, there are several uh, points in the uh, requirements in the law. Uh, the more important ones are there at the bottom uh, really just examining how uh, internet service providers um, and video streaming uh, service providers um, could ensure that emergency alerts uh, be carried um, on their systems and displayed to users uh, impacted by emergencies. Um, also examine the relevant uh, state and federal and local laws um, to implement that um, and to recommend any statutory changes um, uh, that would be required. Uh, the Emergency Alert System it's really a, a, a national warning system uh, established in 1997. Uh, it replaced uh, the Emergency Broadcast System which um, we are all familiar with but probably our kids are not. Um, but it's really you know an attempt to, to keep up with technologies um, and, and to communicate to the masses um, using the best and the most efficient ways possible. Uh, EAS was designed uh, actually to designed to allow the President of the United States to uh, communicate with all of the citizens of the United States within ten, ten minutes of, of a declared emergency. Uh, it's been expanded and modified um, to alert the public of local weather emergencies uh, such as tornadoes, flash floods, uh, severe storms uh, etc. Um, it's jointly coordinated by FEMA um, and the FCC um, really if you're going to ask what regulatory body um, oversees this, it, it would be the FCC. Um, but it also um, with the National Weather Service and the um, NOAA um, they really are the, the bodies that oversee uh, the, the program and, and the system. Um, IPAWS which is um, really just an integration uh, of all the of all the different systems uh, used to alert um, it is really the architecture that it, it unifies all the different um, Federal uh, warning systems, EAS uh, and, and the National Weather Service, uh, the WEA which is important, the wireless emergency alerts uh, which we're probably more familiar with uh, and also the NOAA uh, Weather Radio really just combines them under um, a single platform um, that we'll get into later even the states um, and tribal entities use to, to send out um, systems uh, send out uh, emergency notifications. Um, the, the great part of it, it accommodates uh, as I said all the different um, state and local warning systems as well as the, the federal warning systems. Uh, the most recent test of uh, really was the WEA was uh, last November uh, just a, a month ago um, it was really the second national test uh, of IPAWS and WEA. And this graph really just shows uh, the graphic just shows how the, the, you know, how the different systems flow into one another um, using what's called the common alerting protocol um, to allow uh, all these different types of um, entities under a single system to, to get, to get the messaging out. I've got to catch up myself. So, EAS over time it, it's really an evolving system. Um, we, the, the improvements to EAS are mostly occurring at the Federal level because it is um, just a, a by its architecture and national program um, in 2016 um, the last nationwide test uh, was generally a success but it, it did highlight some shortcomings uh, or opportunities for improvement. Um, one of the things was the audio quality. There were some uh, feedback from, from the minority communities and the, the non-English speaking

communities um, disabled citizens um, had difficulties either receiving or understanding the messaging. Um, what it really did is highlight though the shortfalls in some of the state systems um, and some of the equipment um, wasn't, you know, configured in order to accept it. So, um, that's always a, an issue when you have fifty different states uh, trying to implement and, and you know build to a, a, a national system.

As far as from the regular, regulatory perspective there were some FCC proceedings that were looking into some of the improvements. Um, one of them being should internet uh, protocol television providers be required to deliver EAS alerts? That was really uh, uh, the beginning of this thought of well how do we get um, you know what are people watching? Uh, the Federal requirements really only applied at that point to broadcast and to cable but most people, I mean my kids don't watch cable any more. They don't watch anything but you know their, their heads are glued into the televisions and uh, uh, laptops watching Netflix, Hulu and everything else. That's really where they're getting their, their um, uh, content. Um, so how do we um, accommodate that, that change in technology and that change in um, viewing to, to get alerts? But what and some of the other things the FCC sought comment on was you know some of the technical issues. What are the policy issues, jurisdictional issues um, you know it, it sounds great but getting these, these pretty much unregulated entities to um, uh, um, go along with the program is, is a challenge. Um, one of the uh, disappointing things from, from that FCC request uh, was there really wasn't too much input by the providers. Um, that's something we deal with uh, uh, quite often but um, um, you know I think once you get a st, a, a standard uniform and, and reasonable method to do this uh, they usually come along and, and um, you know, try to accommodate.

Uh, another big development was just this year, um, at the Federal Government there was um, proposals from both the Senate and the House um, uh, what, what's called the, the 2018 Ready Act. Um, that took some of the require, needed requirements uh, uh, required improvements, DAS. Uh, also was required similar to this state law uh, ex, to examine the feasibility of establishing a system for audio and video EAS on streaming services but again that's still in both uh, committees at the moment.

So, I'm sure all of you uh, are quite familiar with, with EAS in New York and some of the uh, alerting uh, platforms that we have. Um, and again just from a regulatory perspective um, the requirements, the radio, TV and cable operations are required to participate in the Federal EAS and IPAWS systems. Uh, they must push the, the Presidential level alerts um, but they voluntarily push all the other alerts. Um and again the, the only real statutory requirement in, in, in public service um, law is that cable television systems under our jurisdiction uh, must accommodate EAS. Um, other than that there's really no other um, statutory requirement for providers um, to, to participate in that. IPAWS in New York uh, to choose for uh, um, various non-Federal um, authorities in New York: The State Police, uh, DHS, OEM uh, use it quite frequently um, as well as the counties when there is a, a, a county specific emergency or need

to uh, alert. Um, New York City OEM also has its own um, system for uh, alerting in the New York City Region. And in New York, the, the New York State Plans for, for these um, emergency alerts to develop um, and implemented by the Citizens Alert Committee which is part of uh, DHS or one of the, the standing committees of the DSAEC Board I believe. But again, the nec, the necessity of EAS notification via streaming um, it, it's, it's pretty simple. Uh, the public is relying more and more on stream video than broadcast and cable. Um, I remember following Katrina uh, the number one, when they, when they asked people what was the number one um, way that they got notifications it was through cable television. I bet you if you asked them today it would be, it would be different. Um, you know we're also dealing with an increase in a number of T cable subscribers cable television subscribers cutting the cord and so they may not be receiving alerts at all.

So, the team um, in addition to uh, researching you know some of the Federal activities and meeting even with, with uh, the FEMA folks uh, and some of the industry representatives uh, we looked at some of the options um, that are out there uh, there's really not too many options out there of you know off the shelf uh, of, uh, solutions um, but uh, when you start to envision what are the an, you know what are the, the possibilities? One of them is overriding the ISP um, um, content option. Uh, so carriers would override content and, and local programming. Um, you know, one of the challenges to that though is you know, what are the, what are the questions regarding interest, you know interrupting program to scroll either along the bottom or the top of a, of a, of a streaming uh, content. Excuse me. One of the benefits of this approach is that in most cases um, the provider would have a good physical or geographic location. That's another uh, very important consideration uh, when sending out messages um, you want to, you know you want to send out the alert but you want to, to the best you know as possible um, have some geo, geographic relevance to the alert. Uh, the challenges um, again you know how do, how do you insert content um, um, to get the right message to the right people? Um, you uh, you know it's a lot easier if it's a National event or a, a, a regional event um, but it gets a, a little bit trickier when you're trying to um, accommodate some of the, the state specific or the county specific uh, information.

Uh, bypassing encrypted um, uh, or, or secured streams um, another issue um, alerting content without permission of the viewer. You know do you do an opt-in service or uh, you know, what, what type of messages should uh, should be opt in versus opt out? Um, certainly is going to require some work by the um, by the providers and software providers uh, to get it done as well. Um, another uh, option was um, accomplishing this through applications. I think there are some applications even out there now. Um, the individual entities we, we spoke of, do you have um, uh, applications you can put of your phone or other device to get, to get emergency alerts and, and other kind of alerts. And that's great um, but how do we do that on a, on a, on a much larger and wider scale? Um, one of the benefits there um, is the alert uh, can be structured as part of the, you know, the, the signal itself in, in its own native fashion so you don't have to worry about a, a, a different protocol for each. Um, the challenges um, again

participating would be required on the thousands of different OTT um, streaming providers. OTT meaning over the top I'm sorry if I didn't um, uh, spell that out before. Um, and again some, a lot of times applications you have a, you ha, you know a phys, you, you um, you appl, you purchase the application based on a billing address but you're, you're, you're able to go anywhere with that application um, so it, it, it, it could pose a problem there as well. And the other opt, the last option we looked at was uh, and user uh, device option where the EAS alert is inserted or pushed uh, to the customer's device or home network. Um, there are some benefits to that. It could be geographically targeted. Um, it ca, also can be structured as part of the, the, the stream itself um, and you know um, I, I personally think that that, this is probably the, the, the, the best way to go but it, it's gonna require uh, standards to be developed to, to, to adopt uh, and, and also be adopted by manufacturers.

So, some of the preliminary findings we had uh, we, we found um, you know again following uh, a lot of research done by the team uh, interviews with the industry uh, some of the industry representatives uh, and several working uh, working sessions with uh, FEMA uh, and the people that run the IPAWS System uh, we came up with some of these findings. Um, jurisdictionally um, there's mandated participation. If there is mandated participation, how does that uh, conflict with Federal preemption of internet services um, and interstate services due to the repeal of the open inter uh, internet um, order um, we, we kind of struggle with this a lot at the, at the Public Service Commission when it comes to jurisdiction over uh, uh, internet based services that do voice uh, video uh, and data now. Um, but again that's just something um, that, that's always gonna be out there. Um, implementing streaming solutions in New York State can interfere with uh, the potential Ready Acts um, effort. Um, we fe, you know we see that the federal government is uh, really um, taking the lead on this issue and uh, they're probably the right people to do it because this is again you know interstate services and national um, um, you know nationwide uh, uh, companies uh, that are doing it and uh, it just kind of makes sense that, in, in that regard. Uh, there's no conflict in public service regulations. Uh, however, there may be some DHS um, and other state laws that would need to be looked at if we were to um, you know suggest mandating this um, uh, participation. One of the things the, the feds were really um, had a problem with still is you know how do we prioritize these messages? Um, who has the obligation uh, for retrieving and sending alerts? Um, there's many different companies out there uh, that, that are subject to many different layers of, of regulation um, and, and mostly none, no, no regulation at all but um, you know is this going to be done on a voluntary basis or how do we um, um, mandate uh, uh, you know participation in, into this? Uh, one of the, one of the issues we found that there wasn't too much participation by the uh, the industry in this uh, at least in the, in the federal uh, proceeding. Uh, that's no surprise. Um, I, I think they're waiting to see how the fed, you know how the feds are going to do it and I'm sure if we had an RFP they would, they would, they would gladly uh, uh, uh, answer it. Um, but again this is still I think in its infancy um, it's a great idea um, but there's going to need to be uh, we feel anyhow cooperation among the state and federal and, and local um, jurisdictions on how to get this done and how to do it uh, most sufficiently and uh, uh,

most effectively and, and, and most cost eff, uh, uh, efficient as well. The costs again unknown um, but on a statewide basis likely expensive. Um, we know that you know these companies don't just eat costs they push them onto their consumers. So, something to, to be aware of. So, some of the con, conclusions um, while they're you know there are several possible uh, uh, solution paths here. Uh, none have been implemented and there's really no um, uniform standard uh, uh, for doing this. Um, um, we feel like a, a state specific application would uh, be inefficient and costly. Um, EAS and IPAWS uh, currently accommodates uh, state input uh, and is integrated uh, and, and somewhat standardized. So, um, you know implementing a streaming solution under a uniform federal approach using the system that we're currently used to um, as states and localities for uh, pushing our information and, and then having them send it out is probably the best way to go. Uh, we know that FEMA is going to be um, stepping up their work on this uh, initiative. Uh, they have offered to work with uh, with the state in a collaborative manner um, as a stakeholder industry and, and with stakeholder industries uh, using the FEMA IPAWS System. So, um, we feel this is a pretty good opportunity um, to work with them in the coming year um, to, to see that this uh, uh, really great idea that just may not be ready for primetime um, you know uh, gets a good look and uh, certainly in New York. So with that um, I appreciate your time. Um, we'd love to take any questions or even uh, recommendations or, or follow up after the meeting. Uh, I brought Mike up just for questions. Well thank you very much.

Chairman: Thanks Mike.

Mike Rowley: Thank you.

Chairman: I went out of order and I apologize. Governor's Office of Storm Recovery is next.

Jane Brogan: Hi, I'm Jane Brogan, I'm the Chief Policy and Research Officer at the Governor's Office of Storm Recovery. We're going to go over some of our programs that we are working on for long term recovery, mainly focus on mitigation and resiliency of the programs. And also they've been used as models for a lot of the long-term recovery programs around the country for the storms that have hit in 2017 and 2018 as what you can do for long term recovery and make your state more resilient. And then at the end, we'll also touch on lessons learned and best practices for implementing these types of programs.

So the Governor's Office of Storm Recovery was created in 2013 after New York State received 4.5 billion dollars from HUD for recovery programs related to Irene, Lee and Sandy. We are implementing all of our programs in declared counties. There are 38 declared counties, and we are funding projects in all these counties but primarily we are focused outside of New York City because New York City received their own grant. So New York State received 4.5 billion dollars and we have focused in five different recovery areas: Housing, Small Business, Infrastructure, Community Reconstruction, and Rebuild by Design, which was a competition run by HUD and then New York State was selected to implement two of the programs. One in

Staten Island and one in Long Island. And now we'll get into talking about the programs a little more.

Thehbia Hiwot: Hi, I'm Thehbia Hiwot, I'm the Executive Director. I'm overseeing housing, buyout and acquisitions at GOSR. So, the housing program. It's very large. We fund the renovation or rebuild elevation of single family homes, rental properties. We also funded the rehab of condos and co-ops. We provide GAT financing for affordable housing projects in storm-impacted communities. We have an interim mortgage assistance program. It's a number of different programs, buyout, acquisition, which I'll get into a little bit later. But I'm mainly going to focus on our recovery efforts serving our single family population. We've spent 1.24 billion dollars to support the reconstruction and repairs resiliency measures for single family homes, and that's about, we have a little over 11,000 single family home owners in our program across New York State. Mainly on Long Island, but also in the communities that Jane mentioned upstate. And we've had great success in our program. A little over 80% of our homeowners are done with their work and have overcome the disaster and are moving on with their lives. I think it's a great testament to the work that we've been able to do.

Okay, so, we've invested a lot in resiliency. Trying to make more New York more resilient to protect our communities and our residents from future storm events. And so, we have a very robust resiliency program. We fund obviously the mandatory elevations, so folks who are substantially damaged and they have to elevate. But we've also created, it's the first of its kind in the United States, an elevation program that's optional. So if you've been damaged by Sandy, Irene, or Lee, and you are within the floodplain, we will fund your elevation. So we have about 3,400 elevations that we've funded and it's kind of 50/50 between what's mandatory and the folks who are optional. We also fund the repair of bulkheads. So, bulkheads are also another protective measure against flooding and so we will repair or replace damaged bulkheads. And then we also fund other mitigation items, such as backflow preventers, elevating your mechanicals, roof strapping.

And just one of the quick lessons learned, I mean we'll talk more about that later, is elevations, they're expensive. They're expensive, there aren't a lot of firms out there doing elevations, they take a little bit of time – design, permitting, and when the home is actually elevated, homeowners have to relocation somewhere temporarily and that's another cost to homeowners. So it's a great resiliency measure, but it is very expensive and so it does require some planning. But a lot of the other mitigation efforts that you can take, such as elevating mechanicals, is a great practice.

So another program that I oversee is buyout and acquisition. It's a resiliency measure. It's managed retreat. And so it's a voluntary program and we established this to purchase properties that were located in places that regularly flooded. You know, during Sandy, a lot of our buyout areas sustained signification flooding, significant damage, loss of life. And a lot of these places, they're places where people really shouldn't live and we really shouldn't be building in these locations. And there's a statistic here that half of the US population live in coastal regions and they're at risk during recurring disasters, and I think we've seen that this year, last year with the storms that have hit. So our agency, we've spent 480 million dollars to purchase a little over 1,200 properties through our buyout and acquisitions program.

And just really quickly, so the buyout program, it is voluntary, but for the communities that want to participate, we create a buyout area and we, the state, would purchase your home at pre-storm value with some incentives and the homeowner would then go move and find a home someplace else, we would demolish the home, grass and seed and return it to nature. I wish we had some pictures of areas in Staten Island that have returned back to nature. You go out there and the deer are there and the birds and it's also a buffer. It creates a coastal barrier, so it serves many purposes. And the acquisition program, these aren't buyout areas, but if a homeowner decides, I'm at risk, I don't want to live here anymore, we will purchase their home and they can move and they will sell their home at an auction. So we actually just completed our last auction in November. The last 21 properties that we had to auction off, the new owners have to elevate the homes, make the homes more resilient. So even though they're still in an area that will flood, now the home is more resilient. So that's been a very successful program.

Just really quickly, this is more talking about, going back to the buyout properties. This is more of kind of a lessons learned, so these are our buyout areas. It's hard to see, but if we have around 600 or so buyout areas, buyout properties that we've acquired, we don't have a disposition strategy for all of those properties. You know, we need a municipality or a non-profit or some group to kind of take ownership of the property, because you can't build on these properties, so if it's a park or we're working with the city, they need to build a levy, they need some of our land around where they're building this levy, that's working a soccer league may or may not take some of our properties, but you need an end use for these. So that's another kind of lesson learned, like the coordination initially ongoing and then after of what do we do, how do we manage these properties after? Who's going to own them? I'm going to pass it over to Natalie.

Natalie Wright: Hello everyone. My name is Natalie Wright. I am the Executive Director of four programs at the Governor's Office of Storm Recovery. So, the Community Reconstruction Program, which I'll talk about today. Also the Rebuild by Design Program, which I'll talk about briefly. And then two other programs that I won't really delve into, which is our Economic Development Program, it's about a 55 million dollar program primarily targeted at small businesses, and then our Infrastructure program, which is a several hundred million dollar program that we have some very large scale activities that we're doing some recovery and resiliency work on. But with the Community Reconstruction Program, this was really a new program model for recovery, for communities, and it was a two-phase program.

So there's a planning phase and then there's an implementation phase. And how this was constructed were there were 66 communities that were developed. It represented over 125 different localities across the state, all communities that were affected by Irene, Lee or Sandy. And they, in conjunction with planning firms that we brought on by our organization, made plans. And they essentially took a risk analysis and looked at their communities and said "How do we recover? How do we become more resilient?" They developed those plans and so they all have these finished products. And phase two was really the implementation of projects that were developed through the plans. So currently, we are developing over 313 projects, equivalent to about 625 million dollars in projects. And these are happening throughout the state. The projects really fall into 6 typologies and so those typologies are critical facilities and

infrastructure hardening is the first one, we have about a 165 million dollars that's going toward projects there.

We have 180 million dollars that's going into drainage improvements and green infrastructure. We have about 80 million dollars that's going into different shoreline protection, whether it's bulkheading, marsh restoration, dunes, those sorts of protections. We have about 65 million dollars in transportation infrastructure that is going and that's from as small as streetlight repair to solar paneled street lights to road elevations, evacuation routes. 35 million dollars in additional housing resiliency efforts that are on top of the programs that Thehbia had spoken about. And then another 20 million dollars in different economic development efforts that are happening. And so, of these 313 projects that we currently have, we're at the end of 2018 today, just in terms of the pipeline of actually getting those projects constructed, we've come a long way. We have about 25% of the entire portfolio is either currently constructed or in a close out phase, meaning the construction is at least 75% complete. We have another 15% that are in the pre-construction or current construction phase of less than 75% complete. And then the remaining 60% of the portfolio is all in the design phase. But we really do have, according to our project schedules, the vast majority of those are planning to go out to bid for this spring/summer construction season.

And so, with all of our money, which we need to spend by 2022, we will have all 313, hopefully, projects completed by that point in time. Just to give you an example of two of the projects that made up through the Community Reconstruction Program. The first is the Rotterdam Water District Well Heads Flood Protection Program. This we actually installed a new well and elevated the pump about five feet above the five hundred year floodplain and so this ensures that the Rotterdam Water District will have drinkable water during a flood event and also will provide additional capacity to the town. So this project is currently completed. The other project here that we've highlighted is in the village of Freeport, which maintains their own electrical utility. And they have done an Outage Management Software, where essentially residents can use their Smartphones to report downed power lines or power outages and can assist the village in Freeport to responding to those outages and getting their crews there to repair those quickly or shut down different parts of the grid to ensure that the power outage doesn't spread to other areas.

Now, the other program that I'd like to talk about is the Rebuild by Design. So this is also another innovative program that was launched after Sandy. This was actually a competition that HUD set forth and ended up awarding 930 million dollars in six different projects. New York State actually was awarded four of those and two of those, the Governor's Office of Storm Recovery is overseeing. The other two are overseen by New York City. And the remaining two were actually awarded to New Jersey. So our portfolio was actually awarded 185 million dollars between the two projects. And the two projects are Living with the Bay and Living Breakwaters. Living with the Bay is a 125 million dollar project. It's located in Nassau County in the Mill River watershed. So what we've done here is it's a range of different solutions along the entire watershed. And so we are actually in conjunction with state parks doing a signification improvement in Hempstead Lake State Park there. We are doing dam improvements, we are

doing storm water management, drainage improvements, capacity improvements, some marshland restoration at the southern edge of Long Island.

So it's really a suite of solutions to allow this highly developed area to really take the water and manage the water much better. In Living Breakwaters, this is an exciting project. It is a series of offshore breakwater. So this is on the south shore of Staten lsland. These will be placed in the Raritan Bay and they will work to attenuate waves. So they will reduce wave action, they will reduce shoreline erosion, and ultimately offer increased protection to the residents and the structures that are along the south shore of Staten Island. The reason this is coined the "living" breakwaters is that through the construction and the design of the breakwaters, it will help to actually restore the historically significant oyster habitat that has been part of the bay for such a long time. So we're using some eco-concrete and there are, as you can see in the graphic, there are these fingers that jut out that will allow habitats for fish, oysters, and other animals within the sea to really reestablish that habitat which will offer increased protection above and beyond just the concrete structures that we're putting in there. And now I'm going to pass it off to Jane to just talk about some strategic partnerships and lessons learned.

Jane Brogan: So when you are undertaking a recovery program that is ten years long and 4.5 billion dollars, partnerships are very important. Within the state, we have partnered with a lot of different state agencies to help us understand current conditions, help us implement projects as well as local municipalities. It's also important to partner with NGOs in this. The HUD funding is a flexible source of money, but it is also very difficult sometimes to get the money as you want to spend it and how it helps the communities the best. So NGOs can come in and help either with the different funding source or with the communication plan. And I think what we're finding right now, the most important partnership are other HUD grantees of this similar type of funding. HUD doesn't have set regulations for this funds, they change each disaster and they sometimes change within the same disaster.

Within the six years we've been around, the HUD rules have changed many times as we have been implementing our programs. So I think the important thing is that we talk together as local grantees. As I said, our programs have been models in Puerto Rico, and in Florida and Texas and California. But also I think as grantees and as states, we can talk to the federal government and indicate the importance that this money is spent and this money is going to keep spending. They just recently passed the Disaster Recovery Reform Act, which primarily deals with FEMA. But the HUD funds is going to be funded around for a long time, and it is a large majority of the long term recovery plan. So I think it's really important for us grantees to come together and figure out what the lessons learned and best practices are that we've developed and really talk to the federal government and how they can best influence long-term recovery and resiliency amongst the states also.

And so as GOSR, we have developed some lessons learned. Natalie and Thehbia talked about some lessons learned within their programs, and we've developed some lessons learned as kind of a high level of what a state disaster recovery agency should be thinking about. As you develop an agency and as you're implementing the program, New York State hadn't faced anything like Sandy prior to this and hadn't received as large of an allocation from HUD before

for long term recovery. So these are the ones that we've come up with. The first is to focus on creating a centralized and specialized storm recovery office. And that's what New York State did with GOSR. We have all the expertise in one area, we have the programs and we have the support teams who have been able to develop the need of the local communities as well as develop knowledge of the understanding of the federal government and the funding source so that we can help the communities that were impacted as well as remain compliant with the HUD funds.

Lessons two is that you really have to manage the expectations of disaster recovery. HUD will announce that you're getting 4.5 billion dollars, but we don't have access to it for another six months. And then we have to develop programs and policies and procedures and you're trying to elevate homes and help 11,000 homeowners. It's a long time, and people understandably so want to get right back into their home, but I think knowing up front the constraints of the recovery funding as well as how long the recovery will take definitely helps get that out. I also think as part of expectations of recovery, helping that is developing flexible programs. As I said, HUD changed the rules about halfway through our programs, so we were able to develop flexible programs where we could help everyone in their needs as well as remaining compliant there also.

Lesson three is the plan for vulnerabilities and risks. As Thehbia and Natalia both pointed out, we need to be thinking about future disasters also and future vulnerabilities. We can't just build back a home that was damaged by Sandy as it was. You want to elevate it, you want to think about managed retreat and build and infrastructure which will protect those communities. So all of our programs are not just a repair program, but we're thinking about "What will we need to be looking at in the state in the next ten years, twenty years?" And that's where our partnerships with the other state agencies have been really helpful also in determining that.

And Lesson four is communication and coordination with HUD and other federal agencies. As I said, we don't have a regulation to really follow and sometimes it changes. And so really developing that communication helps us through guidance and to be able to connect and what are other best practices that helped before, what we should be doing to help our communities. And I think with the increasing frequency with disasters around the states, luckily one hasn't hit New York State, but I think it just amplifies the need that the expertise of the HUD funding and long term recovery is really important for states to hang onto and be apply to implement and continue on, even in it posts long terms disaster and other preparedness. Because this cycle is going to continue to happen again and just to have that expertise, it takes you a long time to build that up, and we have that a GOSR so I think we've been able to help in other storms also, smaller storms that haven't necessarily raised to the federal level, but best practices and policies of our program around the state.   So, did you guys have anything to add? Thank you for having us.

Chairman: Okay, thank you. Board of elections.

Todd Valentine: Good afternoon. My name is Todd Valentine, one of the Co-Executive Directors for the State Board of Elections. I'm going to do the first half and then Bob Brehm, my counter-part, the other Co-Executive Director is going to do the second half. A couple things we wanted to just talk about, in reviewing the post-election was how we're configured. So just a

brief reminder – whoops, backwards, forwards. What we did this year, this was a busy year. We had the federal primary, the state primary as well as the regular general election in November of 2018. When we're looking at the election, you know, you just go to the fill out the booth and put your little thing in there, but you know there's a little bit behind it and the structures as you can imagine, is quite large. You know, we have the 58 county Boards of Elections. We're the State Board of Elections. The counties are the ones that actually are the ones that you're interfacing with when you're actually voting or the election is running. They put out the machines, print the ballots, print the poll books, collect all the election night reports.

But those systems, the voter registration systems, who gets in the poll book, counting the votes at the end of the night, returning those election night reporting. And they're the first line of defense when people call, when they have a problem, we direct them to the county board of elections because often the questions are "Where can I vote?" or "Why am I not in the poll book?" The county board has to answer those questions, but they're also the ones that may see the misinformation that's coming about because they're hearing things. Since 2016, this is just a list and I'm certainly not going to run through it, but one of the things we're learned is in dealing particularly with cyber threats is that we don't operate in a vacuum. So what we work strongly with since that election was with both on the federal and state level as well as working with our local associations, IT associations and NYSAC, that we need to partner with these groups and these agencies and governments to put us in a position that we're ready to respond to threats.

And we put some work into it, you know, certainly thank our partners in helping us on the state and federal level, putting together a series of tabletop exercises that we did, which the biggest outcome of that was while you work through the exercise, and that was the first time we'd ever done that, at least we've ever done that. The biggest outcome was the connection that we were able to make between the County Board of Elections, who was often set a little bit aside, much like the State Board of Elections, we're a little bit different. And working with their IT partners in the county, and that connection is going to be critical going forward and it was certainly critical during this year, so that was why we pushed doing that early in 2018. And out of that, part of the outgrowth of that that prompted us was to try to drive, give counties a spot, a single spot to go and certainly working with DHSES was an emergency contact.

This is a small poster that we printed that was 8.5 by 11 that could easily be distributed and posted in all the county offices, all the county works. If there's something odd that comes up, then you need to report that. I'll point out that this continues to be a problem because people are always afraid to call. It's one of the things we're going to work on going forward is making sure that the counties get down to their employees. If there's something odd, there's no fear in calling. The problem is if you don't call and something happens. But certainly working with our own state partners, well got a lot of alphabet agencies here. We did partner together to have a series of calls, again something we really hadn't done before. We contacted on a regular basis, certainly led by DHSES, was to just kind of go down "Where are we?" "What's going on?" and it expanded a little bit beyond cyber security because other things come up, particularly keeping an eye on the weather, were there other factors involved? But it gave a good briefing and the run up to the election as to what were going on.

So we put together a communications plan, which was designed, all the state agencies were talking together. Again, as with many communications plans, it's something that still needs to be worked on, because the concerns of the other agencies. We have our area, the State Board of Elections, so when they look at things, other agencies don't necessarily see it in an election vein and they don't necessarily know the calendar that we're operating under. And a quick example of that is, yes, the general has just finished, but in many area, the fire districts are beginning to do their own elections. While they're not run by the County Board of Elections, these occur across the state and they happen in the middle of December. Something a lot of people don't think about but there is an election process that starts there. And the village election process for March is going to begin at the end of this year, so the cycle just keeps beginning in different elections in different phases. So other agencies aren't necessarily going to know what's happening in the election calendar, because you're just not exposed to it.

We got a lot of help working with redundancies, again, not something we really focused on except on an ad-hoc basis, but we're trying to put that into a better position going forward. Having a back-up website, that was one of the critical things that, while we had a disaster recovery site, we weren't fully prepared to keep our website as more people have relied upon that, especially as we got close to election day, because they want to know two things: Am I registered to vote? And where can I vote? And then on election night, producing the election night results that we get. So we wanted to make sure that we had, in the event that we needed to flip over to a call center, we put together a script for the tax department and also working with Google as back-up system so that the back-up website would have an operational basis to go to for voters to get on to look up where they could vote.

And we continue to get the availability of reports. The emergency watch reports, those are things that, one thing we did notice, and I mentioned this, was that the daily watch reports would often indicate events of notice. And it was kind of funny, because on election day, the one event that was happening, they didn't notice that in the daily watch briefing, so that may be something we want to point out in the future. So now I'm going to turn it over to Bob.

Bob Brehm: Hello, my name is Bob Brehm, for the short version. I want to cover a few of the issues. During the primary election, something strange happened that we thought. One of our counties had called with an anomaly, Chenango County. DHSES did what we all do when we can't get our internet service provider's attention. They were on the phone for a long time waiting for the next available operator and that operator told them that the election event wasn't very important so that they would dispatch someone the next day to deal with the problem. Since the election infrastructure was critical. Here I thought this was something regulated at the state, it was regulated at the federal level, but still, we worked in partnership after the primary to at least look at what could be done, certainly to put something in place.

And what was done, we started to poll the counties to figure out who their internet service provider is, and we also worked with partnership with a number of entities including the Department of Public Service and DHSES and others to locate all the polling sites at least to provide that information to the Department of Public Service and also so that they could identify from the county perspective who the internet service providers are to make sure they were on

notice for an election event, that they need to respond a little better than they did in the primary. And also, if some power outage or something happened at a poll site, that they could take action. That was helpful. We didn't have an outage for the general election other than the weather related, the wind storm started to provide some notices at poll sites were out of power and that at least having that information really increased the speed with which the response could happen. And also it certainly helped the state because we weren't sure as we go toward the close of polls what would happen with the wind storm. The state did deploy some generators at various locations, luckily we didn't need to use them.

Incidents, while it was no official interference with the election, we did have one, two, three, four, we're up to our fifth that didn't make the list yet, because one is ongoing in Schenectady County, but we had an issue in Skylar County, St. Lawrence County, Chenango County, Otsego County, and surprisingly enough, they happened around an election event. So our normal concern, and it works mostly, there's a million different people you could call, we coordinate through DHSES so that we have a uniform response and contact. Usually from an election perspective, we're not health and safety, we're not on the number one list, but we follow up with the Board of Elections, while others involved in responding deal with more critical, higher priority items. And then we connect in with that team, some time shortly after they've settled all the bigger issues with the county, but at least we've put in contingencies depending on what's happening. St. Lawrence County and Otsego and others certainly impacted their ability to register voters in time for the cut off deadline and also print poll books for the election, so we worked to help come up with plans in regards to that so that once these systems could be back up and running, we didn't lose as much time as possible, we have contingencies.

One other item that really impacted us last year was misinformation campaign, certainly the reports that outside actors have impacted social media in just about every means. Misinformation campaigns are big. We had several this year. Early on, several counties started reporting that they were being polled by individuals looking for their personal information in order to help them register. That report came into DHSES. It also came into our office and a number of others. We shared that information, we got a press release out very quickly that was widely covered in order to tell the public, remind the public, never provide personal information for something like that. Others who thought they were helping, Common Cause is the second example, who thought they were helping people to text them that their party affiliation was wrong or it had changed. A lot of people got a little excited about that information leading to an election that they might not be able to vote in the primary and we learned through contacting Common Cause that they were using very outdated data so we encouraged them to discontinue that practice, although Common Cause did join with Democracy New York City in doing the same thing to 400,000 residents in the City of New York shortly there after where they told them that their registration record was inaccurate using widely outdated information.

So in all those instances, we had to look at areas to try and educate the public on what is the correct means of getting that information out. We also do routine monitoring of social media sites, the National Association of State Election Directors, which New York is a participant, Todd is the former President of that organization, has worked together with the social media

organizations to I call it the easy pass for elections. If there's something going on that we identify and detect to get at the front of the line of the notice that this is misinformation and that they need to take it down as quickly as possible. So we have that protocol in place, we haven't had to use it yet.

Election Day, while we were ready, I'd like to thank we were ready and we didn't have to use any of the issues, although some of the redundancies were called into place. We had a little trouble in the morning with the traditional voter lookup, and an example from the weekend before the election through the election night results: We had 3.1 million hits to the State Board website, both "Where do I vote?" and "Who won?" during that period of time depending on your time of day. So certainly opening the polls in the morning where there are a huge number of people trying to find out where to vote, so we did have to go to the Google back-up to provide a lookup because there was a delay in the state system that once the IT people got it fixed somewhere around seven o'clock, eight o'clock in the morning, it went back into normal functioning. We didn't have to use the back-up. So certainly it's good to have back-up, it's certainly good to attest to them and we've had to use them.

And from the previous group, hurricane Lee, Irene and of course Sandy all were close to an election event, which really impacted all of our ability to respond. Now, ongoing efforts. We certainly worked together to try and improve the election infrastructure. We've found in a very short period of time at the local level the election infrastructure, there are no barriers. There's no separation between the election infrastructure and the entire county infrastructure. So somehow our responsibility to protect election infrastructures has to find a way, at least temporarily, to protect the entire county. Thank you. Any questions? Thank you.

Chairman: Thanks Bob and Todd. Next, New York State Police and Partnership with DHSES.

Jim Turley: Good afternoon, everybody. I'm Jim Turley, the Law Enforcement Coordinator for the Office of Counterterrorism within the division of Homeland Security. For the past several months, we've been working with our state preparedness training center in the division of the state police on school violence, incident prevention and response trainings. Heavy emphasis on prevention and mitigation and the Sergeant is going to share some information on our initiatives.

Craig Vetter: Good afternoon, everyone. I'm Craig Vetter, I'm Technical Sergeant with the State Police. I'm the Project Coordinator basically overseeing the School and Community Outreach Unit and there is nine of us in the field and then myself in Troop H up in headquarters. What we have is something that we all can recognize as an issue: School violence. I recently came out of the field. When I was in the field, it seemed to be before, it was Valentine's day, February 14th, 2018 was Parkland. Everything changed, okay, we had Sandy Hook obviously take place, but Parkland was when everything changed, the climate changed. With that being said, what we had is a shift of what people were calling me to present on prior were drug presentations and social media presentations. After Parkland, Florida, everything changed to "Please, help our school stay safe. Give us some risk assessments. Come on in and talk to use about our vulnerabilities." So we had a change in our current environment and as you know, we've had several since.

Cruising through, we decided that we had a shared goal. Obviously, I'm a proactive individual, I don't want to have to use my handgun, I'd like to try to work with individuals to stay safe, look at the pathway to violence instead of reacting to an incident. DHSES has that mentality as well, so we worked together to design and create this back in the early spring of 2018 after Parkland and I was on that committee, we worked together on that. The joint effort basically put us together and it created, we had to take a canvas of what was needed statewide. And we looked at our needs, and what happened was we decided to team up, we even got with the Office of Counterterrorism to look at everything. But we realized that it's not just our optic. It can't be just our optic as law enforcement and as emergency responders. We had to get the boots on the ground to see what school administrators needs, what principals needed, what was the climate in their school, and how could we take that approach so that we're not turning schools into hardened facilities, still provide an educational standpoint.

What we have is the overview, so let's jump right into that. This workshop essentially pleases everyone, okay? If you are a superintendent all the way down to a bus driver, you will get something out of this training that will provide you an insight into what an individuals' behavior, whether he writes down or she writes down a note on a wall or posts on social media, something that lets you know hey, I have to do something. Something that you might not see as normal, it brings it out and makes it something that you can prevent, that you can bring forward to administration, so we'll get into that. What I like about the delivery is we decided based off the needs of schools, we realized that some of these things can't just be three or four hours. Some schools have a needs within an hour, so it's broken down into five sections. So based off what a school needs, and we'll go through those sections, a school can actually say "Hey, I only have an hour. I've got union issues, we only have an hour before school ends, come on in and we'll work that together."

One of my things that I refuse to let happen was the state police take charge. We needed local law enforcement to be part of this, the sheriffs have to be a part of this, even EMS workers were very important because the people responding on the end of the 911 call are who's going to be there. We know that we're out there, but we're not going to be the ones that always respond. So it's a big conjunction with the local agencies. This compliments but does not replace what's already happening. It takes what is in existence and is a compliment to it. Let's learn this clicker here. The framework of the workshop is very important to understand. We have the reactive, which we're sadly very good at. What we're trying to get better at is the proactive, the prevention aspect, which we call basically you have the left of boom, right of boom framework here. So the preventative side is going to be school climate. What are schools dealing with? What are they saying on social media? Are they comfortable enough to come forward to their superintendents? Maybe they're not. We want to create that climate and make everyone comfortable enough for that.

The reaction side is obviously the Run, Hide, Fight, the Avoid, Deny, Defend, whatever you use. It's just so that everyone understands they can do something during an incident without being Monday morning quarterback. That's the easiest way to say it. And interacting with first responders is as simple as life your hand so the police can see your fingers to stay safe. So we'll

cruise through. As you can see, your presentation sections here are simple. So if a schools says "Hey you know what, we had an incident recently and we didn't do really well with section four, come on in and teach us how to work with the police." However, if they have that superintendent's conference day where they need that five hours filled, we can provide that as well.

So, section two, introduction to threat assessment, this is what I love. I love the threat assessment wheelhouse because it's an aspect of prevention. It's the pathway of violence. It's realizing that, I like the name Johnny, it's realizing that Johnny is now going down a different pathway. The best student becomes the worst student, what's happening? And it's taking people that worked with Johnny, working together and understanding that something might be happening. How can we get law enforcement involved? How about some of the coaches maybe that the student's working with. Bringing people together and doing basically a canvas and understanding what Johnny's dealing with to prevent that incident from ever taking place.

And then of course, where do we go from here at section five. So let's just cruise through. Run, Hide, Fight. This is the one that we seem to have some resistance on and I'll explain. The reason we use Run, Hide, Fight is because it's federally recognized. It's federally funded. Avoid, Deny, Defend and some of the other ones that are out there come out of private sectors and there isn't the opportunity for us to jump on board with that. My theory is this: As long as someone is training something and people have an opportunity, it's fine. So it's adaptable. I like the Run, Hide, Fight framework basically because it's scalable, it's adaptable. Hide is huge. Hide is lockdown in schools, so we're all on the same page. So, Hide can come first. It's adaptable. Cruising through. Effort to date, we developed this in the spring and summer of this year, a lot of work went into this. Back in July, we brought everybody together, I made it very clear, I said "In order for this to work, we have to have the stakeholders. We've got to get the superintendents. We have to get boots on the ground".

So we went through multiple drafts and reviews to try to create the most quality, obviously this is a state here, so we had to have people from all over the state to be able to make this as quality as we could. Obviously NYSP and DHSES worked together on this. The initial workshops have begun, I think we have done about four to five presentations to date and they just keep adding, obviously now that you know about this, you might not have anything to do with schools except for having a child in your school, you can mention it to staff. This is available. They can reach out to my website, the State Police, Troopers.com or you can obviously go to DHSES or just call one of us in our office and we'll put it together for you. Numerous deliveries are on the calendar for next year. Broader school safety efforts so everyone understands, there's this School Safety Improvement Team that myself, Captain _____ we're all a part of. It's the executive chamber of the Governor's Office, NYSP, DHSES, SED and also DCJS.

The goal of that committee was created after the Safe Act to go ahead and create missions and accomplish tasks to make schools safer. One great example that came out of that was the mandatory four lockdowns that have to be accomplished per school year, to be clear. So those kind of efforts are what we talk about of what we can do to keep kids safe. Additional training opportunities for schools, schools now have the availability to take what's called a G364 Course,

it's approximately a two and a half day course to learn how to make a stronger plan. You can't just write a plan, you have to know how to write a plan. That course actually teaches that. And then threat assessment training for school resource officers. It talks about all the possibilities of understanding what you're dealing with, what are the rights and considerations of the paperwork that you're dealing with and inquiry versus investigation, the real things that matter to protect obviously all members of that investigation. So, that in the interest of time, was the initial introduction to this workshop. Does anybody have any questions for me? I know I go fast, but your time matters.

Chairman: You did well. Can you stress the fact that you will take calls and I, my office will personally take calls, Jim Turley, and we will go to your school to do something. If you have grandchildren, if you have just friends and neighbors, or you read about something in the newspaper and you want to make sure that we're aware of it so that we'll offer our services, that's absolutely without question correct?

Craig Vetter: Absolutely, and again, the nine members that I have out in the field, they're all trained, they are trained the trainers in this course as well, so we have that aspect and also I believe you have 40 instructors trained to date? So there are plenty of people to train this, just know at least something is available. So we have to have that. Yes ma'am?

Sharon Case-Williams: I'm Sharon Case-Williams from the State Education Department. So every month, the BOCES superintendents are right in our office for a meeting, would you like to come and do this presentation with them?

Craig Vetter: I believe I'll say yes to that.

Sharon Case-Williams: Okay.

Craig Vetter: Thank you so much. Does anyone else have any questions that they'd like to share? Okay, thank you for your time.

Chairman: Thank you very much. Office of Fire Prevention, Paul. Paul, think two minute offense.

Paul: Thank you. I don't know where to focus my appreciation, to the Fire Administrator for volunteering me for this or the Commissioner, for putting me on the agenda between you and the doorway. My goal this afternoon, you may wonder why we're going to talk about residential fires at a disaster preparedness commission meeting, because you go "It's a residential fire, why is that a disaster?" Well obviously if it's your house, your neighbor's house, or you're close to a large fire in your community, that's a disaster. It may not be a statewide disaster, but that's a disaster to the individual. My challenge this afternoon is to explain to you why we have a residential fire problem in the United States of America, and we do, you'll see in just a moment.

Absent from the horrific wildfires in California that we're just recovering from and closing up right now, probably the last real impetus or major event on network TV to capture America's attention in the area of fire was the season finale of the NBC hit show "This Is Us", when Jack died as a result of a fire in his house. Now the reason I showcase this is because there was really

no better incident that showed that the American public isn't attentive to the fire problem. Just real quick, how many people watch the show? Wow, okay. Nobody. That makes it a little more difficult. Okay, but throughout the build up to this big tear-jerking finale, there were points of intersection in the lives of the characters where this whole tragedy could have been avoided, but they were inattentive to that. Throughout the episode, it built about missing smoke alarms and the fact that the batteries weren't in them. The characters were interacting talking about that. Had they taken action on that issue, we may not have had a tragedy.

They didn't practice a home escape plan and they darn sure didn't follow it, because Jack met his demise after he got out of the building safely with his family and decided "I'm going back for the pooch". Now look, I have two dogs, I love them too, but it's going to be a tough night for those dogs if I get out and they don't in my own house. And the last thing was, amazingly, the Hollywood created the incident where there was a failure of the crockpot. That was the ultimate cause of the fire. And there was a groundswell of activity. 72 hours after this episode, you should have seen the internet explode about people saying "throw away your crockpot, it's going to explode, it's going to kill you, it's going to do this" and they missed all these other points of where the real message comes from. And that's why I say it's very difficult, because my job is certainly to get America to look in the mirror and say "We have a problem", because just don't see to do that.

Nationally over 3,000 people a year die in fires, 1,500 injuries, 15 billion dollars in direct property loss, direct property loss, 15 billion dollars. And it really doesn't resonate that we've got a problem in the United States when it comes to fires. We think of them as isolated incidents, small fires, my neighbors house burned down or an apartment or a condo. But when you take a look at a ten year total, 2007 to 2017 nationally, we had one death by earthquake, 728 by hurricane, about 1,100 from tornadoes, anybody want to guess? [Presentation shows 35,167 deaths by fire] That's my story. We have a problem and we do nothing really to address it. Nationally you can see that the deaths, they're kind of riding right along, we've done some great stuff over the last thirty years but there is still more to do. 3,000 deaths from something that's easily preventable is not an acceptable situation in this particular country.

Here in New York, we're hovering just over 100 a year in that same time period. We own over 100 of these. And with that, the Office of Fire Prevention Control is working very hard to assure the safety of people of the State of New York. And one of the areas in which we can do that is through education. Collectively by the agencies sitting at this commission, we probably represent over 100,000 state employees, 100,000 households, and if we can being penetration into that through education in the workplace, we will have meaningful impact. Some basic facts. As I showed you a moment ago, it kills more than all other natural disasters. Almost all of it can be prevented. Human error, we're our own worst enemies, absolutely we are our own worst enemies. We're not trying to control mother nature here, we're trying to control ourselves. And we're doing a pretty darn poor job of it. 70% of them occur at home.

We've done remarkable things to improve the level of fire safety in the workplace, in our areas where we have recreation, where we congregate, but we kill ourselves in our own homes. Totally unacceptable. 74% of them are in structure fires and as I said, 94% occur actually of the

fatal fires occur in the residence. 94% of the fire deaths happen in your home. That's the place we should feel the safest, folks. Absolutely feel the safest. And yet, it's where we're most likely to die. It's said statistically that 80-90% of people think they are safest when they're in their own home, yet proven otherwise. Couldn't be more wrong in that assumption. Four times as many in the residents. So what do we gotta make people know? This is a really interesting, much more likely to die in a one or two family home today than you were forty years ago. We'll talk about that in just a second. You can see in 1980, just almost three quarters of a million home fires, today they're down but we're killing a whole lot more people in them.

Deaths have been reduced, there's a lot of reasons, we're building better, we've put more safety features in, there are still more that could be done in this arena, we must have the resolve to do that. We have to say, no more is it acceptable for Americans to die in their own home. As I said, the likelihood of dying is much greater than it was in 1980. Why? Our modern building construction, in an effort to be faster, cheaper, quicker, it's lighter weight, it burns faster, we're using an open floor plan, it allows fire propagation much more quickly throughout the building and the crap we're bringing in burns like that. As opposed to the old legacy furniture that was a heavier weight, took longer to get going. Now, it burns almost in a flash. Time to escape. Legacy construction, again back to the 60s, 70s timeframe, about fifteen minutes to get out of your house. 1980 it's down to eight. And today we've got two to three minutes to get ourselves out of bed.

Look, I can barely put my feet on the floor and make it to the front door in two to three minutes before the conditions in my house become untenable and will preclude me from escaping. This is why we have to do something. We've got to do something to provide additional time to evacuate or even prevent the fire through education or maybe even get the fire put out quickly and early. Some common myths as I begin to wrap this together: Fire is not going to happen to me, it happens to somebody else. Let's be an ostrich, bury our head in the sand, pretend it doesn't happen, it's gonna happen. Definitely gonna happen. But we also think there's nothing we can do about it. There's a lot we can do about it, a lot we can do about it. We've got to be committed.

I don't think there's anybody that works in the emergency services that isn't committed towards preventing disasters, emergencies, harm to come to people or infrastructure. As I said, we represent over 100,000 households here through our workforce. I will say to you on behalf of the members of the Office of Fire Prevention Control, if you've got events back in your workplaces, your offices, where you have launch and learn, you have some sort of employee get together where there's an opportunity to come talk for ten, fifteen minutes, our staff would be more than excited to come to your workplaces and talk to your folks there, because if can raise their awareness, their consciousness, we hope those messages go home and trickle down to their family and help keep them. With that, I appreciate your time and I'll get out of the way of the door for the rush.

Chairman: Thank you very much, that was excellent. General, do you have anything to add at this time?

General: I don't, commissioner, thank you.

Chairman: Alright, do we have the Assistant Commissioners to DHSES, Assistant Commissioners, can you stand up? Do we have all five of them? Covers the entire state, you have an opportunity to please go introduce yourself to them. They help with the locals but also help with our own state people and especially people of this commission. Thank you very much. I want to wish everybody a Happy Holiday. I really appreciate you coming in at this time, this went longer than expected, I really appreciate your patience, thank you.