

**Nick Angarone, DEP**

Thank you, Shamay. Good afternoon, everybody. I'm Nick Angarone, New Jersey chief Resilience officer and vice chair of the Interagency Council on Climate Resilience. This afternoon, myself and the deputy Climate resilience Officer, Nathaly Agosto Fillion, will be discussing with you the Resilience Action Plan initiative of the Interagency Council on Climate Resilience. Go ahead with the slides.

**Nick Angarone, DEP**

Alright, first a little bit of background and the basis for the initiative and nearly all the work that we've done over the last few years is Governor Murphy's executive order. 8989 was signed by the governor in October of 2019 and it did a number of important things, not the least of which was establishing the position of Chief Resilience Officer. Perhaps most importantly, for the first time, the governor made it clear that it was the policy of the state of New Jersey that executive branch departments and agencies take proactive and coordinated efforts to protect public health and safety, and to promote and protect the physical, economic and social vitality and resilience of New Jersey's communities from the current and anticipated impacts of climate change and everything we've done since then has stemmed from that directive. Go ahead.

**Nick Angarone, DEP**

In addition to establishing the Chief Resilience Officer and the programs to support the effort, the executive Order also established the Interagency Council. Go ahead.

**Nick Angarone, DEP**

When it was first established, the IC consisted of 17 state agencies. We've since expanded that to 22, and there's a I think virtually every major department and agency in in New Jersey is part of the group at this point. Go ahead.

**Nick Angarone, DEP**

To ensure that that the Interagency Council was in a position to do its work and in an informed manner, and do it. Attic to adequately address all the impacts of climate change that we face, yo, 89 mandated that the Department of Environmental Protection develop a scientific report on climate change. Go ahead.

**Nick Angarone, DEP**

That initial report was issued in June of 2020, and it brought the the global issues of climate change, the right into New Jersey's backyard, with, you know, with very specific state specific information. We've updated our understanding of climate impacts in New Jersey multiple times since then. In cooperation with the Northeast Regional Climate Center, we updated New Jersey Historic precipitation data. We've developed projections of extreme precipitation events and produced an extreme precipitation projection tool. The information is critical as we plan for and design development and infrastructure going forward. Additionally, in partnership with the Department of Health, DEP developed and released just this last fall and addendum that addresses the impacts of climate change on human health and communities. This is a critical addition to our understanding of climate impacts in the state. We often thinks about the destruction caused by storms such as Sandy and Ida. When we think about climate change, but we need to think about the impacts more broadly.

**Nick Angarone, DEP**

But I'll also note that prior to the issuing of executive order 89, Rutgers University at our behest and

paneled a scientific and technical advisory panel of experts to develop C level rise projections specific to the state and based on a moderate global emissions scenario, New Jersey's likely to experience 2 feet of sea level rise by 2053, 5 feet by 2070 and 10 feet by 2100. Go ahead.

**Nick Angarone, DEP**

The executive order also directed us to develop a resilient strategy and support efforts across state agencies to implement climate resilience actions. One of the most important things the strategy did was define resilience for New Jersey. That definition up on your screen is really a melding of resilience and adaptation, indicating that we're not just bouncing back, but that we're bouncing forward. Go ahead.

**Nick Angarone, DEP**

There are six priority areas that make up the resilience strategy that are displayed here across all of these priority areas, there are 127 recommendations and actions for the state state agencies. I hope you can see that these priority areas recognize a broad definition of resilience and the types of actions that will be necessary.

**Nick Angarone, DEP**

The strategy is a policy framework for new jersey's executive branch agencies. That includes forward-looking state policies that address some of our vulnerabilities to climate impacts and helps us strengthen resilience in the state. The strategy is meant to provide recommendations for how New Jersey State agencies can take can make changes to enhance resilience, not necessarily to be prescriptive as to how specific programs should change or what they should say.

**Nick Angarone, DEP**

The strategy does not put a timeline on advancing these recommendations, nor does it consider the funding needed to do so. It doesn't assign any particular agency or or agencies to any specific recommendations.

**Nick Angarone, DEP**

However, in order to reach our resilience goals, we need to make those decisions. And begin to act on them. Go ahead.

**Nick Angarone, DEP**

And I'm gonna turn it over now to to my my deputy resilience Officer, Nathaly, to explain how we get there.

**Nathaly Agosto Filion, DEP**

Hi everyone. Thanks so much for joining us this afternoon. As Nick said, my name is Nathaly Agosto Filion and I started with the department a couple months ago to help us advance some of this century agency work. So today I'm gonna spend probably somewhere between 10 to 15, maybe even as many as 20 minutes, sort of explaining a little bit about the direction that we're heading and we're we'll be leaving at least. 15 to 20 minutes for any questions that come up for you. All

**Nathaly Agosto Filion, DEP**

I wanna discuss the major goals, outcomes, the components of a resilience action plan, which we for sure have been calling wraps. And while we're not gonna cover every single detail today, we did put out a comprehensive scoping document that covers a lot of the expectations that you can have around what

the resilience action plans are. So I highly encourage you to take a look. One of my colleagues should drop a link in the chat in a minute here to direct you to the web page where we're capturing all of that information. Next slide please.

**Nathaly Agosto Filion, DEP**

So our intent as the Interagency Council on Climate resilience is to release a series of these wraps over the next several years with the intention of laying out implementable actions that are agencies are taking, that are agencies will take and that we should take to advance New Jersey climate resilience. We're primarily concerned with addressing the effects that climate threats have on states, policies, programs, decision making, such that we are consistent with the climate change resilience strategy. So each of the individual wraps our resilience.

**Nathaly Agosto Filion, DEP**

Action plans will focus on a different and specific climate threat or impact. And the key that we're really looking for your feedback on is which of these climate threats are topics are critical from your perspectives as a collection of experts. Obviously in New Jersey, as folks who live in New Jersey and with the various expertise that I'm sure is captured in this room, what do you think the Interagency Council should prioritize relative to extreme heat? And on the feedback form that we'll mention later, you know what should be our priority topics for future reps?

**Nathaly Agosto Filion, DEP**

So as I said, our first rap is focused on extreme heat and we chose this topic for a couple reasons. The first is that the climate resilience strategy was fairly limited in the degree to which we discussed extreme heat. And second of all, and really most importantly, it's one of our deadliest climate impacts we're already facing today. And we'll go into a little bit more detail and just a moment about why we're looking to act so urgently to mitigate the impacts of extreme heat.

**Nathaly Agosto Filion, DEP**

So one thing that I want to flag about what these resilience action plans are intended to. Address based on the. The leadership of this administration is that coordination piece so often our state agencies are working in the silos within their specific authorities. But meaningful climate action requires intentional and strategic coordination and collaboration across those traditional boundaries of each state agency and the executive branch. It is my sincere hope that while members of the Interagency Council work together in writing this first ever Rep, we can also continue to build up that muscle memory around coordination and collaboration so that we can hit the ground running. With the implementation of new actions that are going to arise through this process. Next slide please.

**Nathaly Agosto Filion, DEP**

So a little bit of context about extreme heat, a little bit of just familiarizing us all with what we're talking about here. As I said, it's one of the deadliest impacts we're already facing and what we've seen in terms of our observed temperature records is a pattern towards significantly hotter than average temperatures as we're moving into the 21st century. So whereas global temperatures have increased by 1 1/2 to 2 degrees Fahrenheit over the period of time that we have records for temperature in New Jersey. So about 125 years worth of temperature records in that same exact period of time, New Jersey has warmed by 3 1/2 degrees Fahrenheit.

**Nathaly Agosto Fillion, DEP**

With the next slide, what you can see is taking that average annual temperatures for New Jersey, dating all the way back to 1895. Each bar represents the average temperature for that given year. Blue tone bars, as you can expect, or indicating cooler than average year temperatures and red tone bars indicate a warmer than average year, and it is quite obvious that there is a pattern towards warming. And what we've observed. Next slide please.

**Nathaly Agosto Fillion, DEP**

So what we saw in our human health and communities addendum to the scientific report that make mentioned earlier is that extreme heat is directly and indirectly facing and affecting the health of New Jersey and. One of the ways that we think about excessive heat events, heat waves, et cetera is that there are threat supplier. So the existing inequities that we have related to heat related illness, the degree of mortality, heat events make those worse and in combination with increased temperatures with heavy precipitation events that we've all experienced living here, the humidity, all of those can create APT conditions for the spread of infectious diseases. High temperatures are also likely to increase the formation of ground level ozone, a major component of smog, which of course increases the severity of asthma attacks, reduces lung function for folks with chronic pulmonary disease, etcetera. And there are certain populations of folks that are particularly vulnerable are elderly. Juice individual. That's kind of health conditions as I've mentioned, but also people who work outside and you know, maybe even our athletes who might be probably the most physically fit, but they also are among the vulnerable to the health impacts of extreme heat.

**Nathaly Agosto Fillion, DEP**

And as I noted, it's a silent killer. It's one that we're not often thinking about. A recent study for New Jersey found that excessive heat kills on average 444 New Jerseyans and by one study depending on, you know, the the increase in extreme heat days and days that are excessively hot by the end of the century. This could be as many as 3560 deaths per year if we do nothing. Some of these models are looking at a possible doubling of heat related mortality by 2050 during the summer months.

**Nathaly Agosto Fillion, DEP**

So in the next slide, you'll see that while we talk quite a lot about extreme heat and how it impacts our public health and you know our own ability to cool our bodies, they're it's affecting all of the. A things that we depend on, right, the air that we breathe, the food that we eat, the water we drink, the roads we drive on, which underscores why we are undertaking this effort through the New Jersey Interagency Council on climate resilience. We need to take action across every sector and every agency to be more resilient to this and other impacts.

**Nathaly Agosto Fillion, DEP**

Now I'm gonna pivot in the next couple slides to helping you understand a little bit about what to expect from the resilience action plans, what they entail. Thankfully, we are not doing this work alone. We're really lucky to have with us and advisory group of subject matter experts and national thought leaders who are helping us elevate and uplift the most promising practices and best practices from throughout the country. As far as we can tell, the New Jersey model for interagency collaboration is unique, so it's not a whole lot of states that we can look to for this kind of action plan and it offers the really great opportunity for us to adopt. Bits and pieces of approaches that we're seeing from all over the country to our first ever advisory group on extreme heat specifically is a primary and ongoing source of feedback

and inspiration and input as we're drafting these wraps among the Interagency Council, and they'll be with us from the very inception all the way through the summer months when we are releasing the document through for public comment.

**Nathaly Agosto Filion, DEP**

You can see on the right side here of the slide the the Members that we've invited, they represent individuals from a variety of sectors, a variety of parts of the country with a diverse knowledge base around extreme heat, public policy, environmental justice, public health, transportation, etcetera. Next slide.

**Nathaly Agosto Filion, DEP**

So on this slide, we're giving you just a very high level general outline of what the plans are going to look like and how we're scoping these actions. As I noted earlier, there's more detail on the scoping document that is published on our web page and what we're asking each agency to consider is how they can incorporate climate resilience and the impacts of various climate conditions into their policies and their decision making frameworks on, in this case, the extreme heat topic. But obviously will follow a similar format each time.

**Nathaly Agosto Filion, DEP**

And one of the reasons that we're having, you know, this early conversation with with you all members of the public and folks who are really informed and tracking this issue is that we're looking for, you know, input and feedback on the approach that we're following because we'll be sort of reusing this approach each time over. So we fully anticipate that there will be agencies that have more or less to say, depending on what the specific impact is, what the specific climate thread is, but that every agency. Is involved at least some level and with the resilience action plans.

**Nathaly Agosto Filion, DEP**

We wanna be really clear about the actions that we're identifying, what it is that we're trying to accomplish and keep it at a level of detail that doesn't get overly bogged down in specific but allows it to be clear and move past sort of our visioning foundational document of the strategy to sort of where the rubber hits the road, as it were. So while we don't expect these actions to identify really specific properties, assets, facilities, that need infrastructure improvements. We do expect to see changes to maybe funding criteria and our programs, new legislation that might be needed, capacity building supports that are required for local level action, new programs or projects as well as modifications to existing programs and projects and the need for additional scientific understanding or data to advance the work and certainly capturing the work that is already happening to date that that center is extreme heat. So that it's clear to sort of all the folks. How New Jersey is adapting to extreme heat.

**Nathaly Agosto Filion, DEP**

And there are certain topics that are gonna cut across every action, issues of funding and investment financing, et cetera, ensuring that we're censoring equity and environmental justice in our efforts, recognizing research gaps and the need to be coordinated in the way we approach this work. That's as a family of government agencies. Next slide please.

**Nathaly Agosto Filion, DEP**

So while that's the kind of skeleton of what every resilience action plan is, the bulk of them will be the individual actions. What is it that our Council members are advancing through this work? So each of the

state actions you can expect a brief narrative description as well as an action table that lays out critical information like what's the lead program, what's the time for implementing this? How does this connect it to the resilient strategy and what additional needs may exist? So we're asking our agencies to consider actions that they're already taking gaps in the work that are related to the given topic for the Resilience action plan, how it affects their ability to continue to provide the services that they do to constituents and any Co benefits that these actions may address, which often is the case where. Work that is advancing. You know, extreme heat preparedness is also improving the way we deliver services, the state.

**Nathaly Agosto Filion, DEP**

This next slide offers an example, so we wanted to give you, you know, sort of some meat of how how this might show up. So to better illustrate a little bit, this is a made-up example, but it's sort of a relevant one. This came out of inspiration from New York State where they're legislature mandated to study of extreme heat impacts and EJ communities and environmental justice communities. So you can see how the narrative here offers a little bit of the what and the why and the action table really focuses on those hows. And we'll see. Obviously this is a fairly short write up. It is only meant to sort of give a taster of what you can anticipate, but the length and the level of detail may vary depending on the specific action and depending on the number of agencies that may all be advanced seeing for example heat illness prevention strategies for outdoor workers, there may be many agencies that are thinking about that kind of intervention.

**Nathaly Agosto Filion, DEP**

So in the next slide, I wanted to provide just a little bit of context for what we're seeing from other parts of the country in terms of the kinds of actions that relate to extreme heat. So they're sort of a category of actions that has to specifically do with folks that are exposed to extreme heat and or highly sensitive, right? You're vulnerable populations. There's a. Series of actions that relate to the built environment and how we protect our infrastructure systems. Our grid reliability during peaks in the summer season, peak demand in the summer season, our water supply and what it means for you know, the risk of harmful algal blooms etcetera. There's category of actions that would relate to people, environment and certainly a category of actions related to our natural systems and how they may be harmed by you know increasing warm weather as well as opportunities for cooling through things like urban canopy. And so these are the kinds of actions and the next slide what you'll see are what we're trying to accomplish.

**Nathaly Agosto Filion, DEP**

You know, ultimately these plans are meant to be implemented in order to advance the kinds of work that you see here, right. Increasing the general level of education and awareness on various climate threats, identifying vulnerable people, assets, infrastructure, retrofitting, where needed, improving coordination and editing, J&J retrofitting, et cetera, are policies and our standards to reflect. 8A warming planet. Next slide please.

**Nathaly Agosto Filion, DEP**

So let's talk a little about timeline. Sure, you many of you have been on calls related to to state initiatives and efforts. This was one that is being sort of aggressively advanced such that we can have a public comment period in the summer months when extreme heat is most front of mind. So we're using these winter months to really deliberate, to bring in early thoughts and stakeholder input as well as to. Engage our advisory group.

**Nathaly Agosto Fillion, DEP**

And as I mentioned, there's a feedback form. I don't know if I've mentioned that yet. Actually, we do have a feedback form where we are hoping to get input from folks. Our aim is to release the near final draft of the extreme heat wrap this summer, and it actually also keeps us in line with the two year anniversary of the strategy, which was released in October of 2021. OK.

**Nathaly Agosto Fillion, DEP**

And now is the moment where I sort of pivot the microphone back over to my colleague and open up the floor for responding to some questions. Thank you.

**Shamay Phillips, DEP**

Thank you, Nathaly and Nick. So right now we're opening up for some questions and answers. So if anyone has any questions, feel free to raise your hand. So we know if you have anything to ask and I will enable you to unmute yourself and also feel free to drop any questions. The chat if you don't feel comfortable coming off mute and I can read it out loud and direct it to the correct panelist. And also my my colleague Ashley will enable the function for everyone to be able to unmute themselves. OK, I see. We have a question. OK. For free to come off and you, you should be able to. Deborah.

**Debra Italiano**

Hey there, so sorry. So just a quick question, where is the referencing and maybe I missed that because I stepped away for a moment. Who is on your advisory group given that you're? Soliciting not only feedback from them, but the wider audience, but who's on your advisory group for this?

**Nathaly Agosto Fillion, DEP**

Yeah. And I'll invite one of my colleagues to sort of navigate back in the slides a little bit. As I noted, we have a national advisory group done. So we have folks advising us through this national. Body where we've got 1/2 more invitations out for folks that we're waiting to hear back on and.

**Debra Italiano**

Is that is that affiliated with Noah? Is that the same national heat campaign group?

**Nathaly Agosto Fillion, DEP**

No, it's not. Although we will have folks on our advisor group. So this is a New Jersey specific extreme heat resilience Action Plan Advisory group that we formed and invited to specifically for this purpose and actually there might be folks driving around the phone or whatever. So I'll go ahead and name some of these say these things out loud for folks that might not be looking at the slides.

**Nathaly Agosto Fillion, DEP**

Kathleen Dolan is from the Association of State and Territorial Health officers. We've got Beth Gibbons, who is currently the national resilience lead at Fairland Strategies. But. Until very recently ran the American Society for Adaptation Professionals, Paula Hammond at WSP as they're transportation infrastructure lead, also formally a dot commissioner from the state of Washington. Doctor Evan Malin is at Georgia Tech and he runs the Urban Climate Lab there and is also an advisor to the Centers for Disease Control. I forget the full name of the program, but it's a resilience program that's national. Mark Rupp is that adaptation program director at the Georgetown Climate Center and a professor of adaptation, and Doctor Vivek Shandas, who is at Portland State. And Debbie might be familiar.

Obviously, I know from the work that you guys are doing in Jersey City, that Kappa Strategies, one of the initial founders and remains an advisor to cap the strategies.

**Debra Italiano**

OK, great.

**Nathaly Agosto Filion, DEP**

Yes, of course. So in addition to this body where inviting public input through these forums, and then we're also going to develop, we don't have, you know, something to lay out right now for for you all. But we will be developing a very intentional strategy for tapping into the expertise of folks in New Jersey as well.

**Debra Italiano**

So the municipal, the municipal level officials and sustainability offices and resiliency offices across each of the municipalities you're in touch with them.

**Nathaly Agosto Filion, DEP**

Not currently, right? We're just launching this process. What we're trying to do is sort of set the the stage for what are resilience action plan is separate and apart from the fact that this first one is on extreme heat. And so as we are developing the strategies that state agencies will take on extreme heat, we'll be talking to a variety of affected stakeholders on this particular climate threat. And that's the same sort of format that you should expect for every resilience action plan.

**Debra Italiano**

OK, great.

**Nathaly Agosto Filion, DEP**

Of course.

**Debra Italiano**

Thank you very much.

**Shamay Phillips, DEP**

Thank you. I mean also have another question in the chat from Ron, when you when will you expect the first public comment period to be?

**Nathaly Agosto Filion, DEP**

So we will have a draft, Umm, we're aiming for July. It might be August, but in any case, we're aiming for the summer months. That's our our strict goal right now. We have a feedback form that's on the website that allows folks to separate into 3 categories. Just dropped a piece paper. It's separated into three categories. The first is sort of helping give some feedback to the approach that we're using and moving from the climate change resilience strategy into these resilience action plans. And the second part we asked some really targeted feedback regarding extreme heat and in the last section, we're just looking to understand a little bit more about the respondents themselves, so that we can sort of parse to the extent that it's possible understanding of how people are feeling relative to where in New Jersey they might live, what region of this. Of the state, you know each classes, those kinds of things that you know degree to which they work on climate change and regular basis or these are new topics. So that so there's a demographics section at the end.



**Shamay Phillips, DEP**

Thank you, Nathaly. We have another question in the chat from Kristen. Can you comment on how the health sector in New Jersey will be engaged in the heat wrap? Is there a specific outreach strategy slash plan for feedback? How is New Jersey DH engaged?

**Nathaly Agosto Filion, DEP**

I. The answering questions, although I also invite Nick to to share, so the Department of Health is a member of the Interagency Council, so they are fully engaged in the same way that all 22 state agencies that are part of the Council are engaged in the process.

**Nathaly Agosto Filion, DEP**

Separately from that, obviously the health sector is a much broader it's it's facilities, it's. You know folks that are advancing health work in specific settings like elder care facilities, possibly daycare centers, et cetera. What we're hoping to do is as we sort of release the public version of the plan, the near final version in the summer to have really intentional outreach to various impacted stakeholder groups that might see, you know, a session that is dedicated to farm workers or session that's dedicated to folks that work with seniors, a section that's dedicated to. You know folks that are doing construction and the summer months on roads.

**Nathaly Agosto Filion, DEP**

Again, we haven't scripted out all the details of that, but I will flag that we have a second webinar schedule for March 2nd and our hope is that as this process is developing, we can have more to share as we're doing for webinars. We wanted to come out, you know, sort of early and often as is the best practice to start getting feedback in the process and then be able to share out additional updates as it advances.

**Nick Angarone, DEP**

Yeah. And. And Chris Christen, I'll add that you should feel free to either, again using the the form that that Natalie referenced or we can also, I think put a an e-mail in the this chat if we haven't already that you can that you can reach out to us and make recommendations certainly on appropriate stakeholders and kind of when and where it's appropriate to have those conversations.

**Nathaly Agosto Filion, DEP**

For advertising, this meeting in particular, we use sort of the the traditional DEP channels, press releases, and then all of the Interagency Council Agency members were invited to also use their channels for advertising. So we're hitting the people that sort of already follow state agency efforts, which means there's a whole world of people that we aren't hitting. So we absolutely invite, you know, recommendations on which is a strategy that we have for the March 2nd webinar as well to make sure that we are hitting specific stakeholders that would maybe benefit from this presentation.

**Shamay Phillips, DEP**

Thank you. And there's another question from Ron. The chat is if we are on this webinar, we'll we include it in all future correspondence and I can answer this question in order to be involved in all future correspondence, you can go on our website, which I can drop in a link shortly after this and sign up to join our e-mail blasts which will receive all information about the resilience action plans and the work for the Office of Climate Resilience.

**Shamay Phillips, DEP**

Uh, we have another question from Mike. He's asking no one from New Jersey is on the Advisory Board as example of education, schools, businesses, transportation and utilities, either Nick or not. If you want to answer this.

**Nathaly Agosto Filion, DEP**

Yeah. When we were thinking through how our advisory group would work at one point we had like 100 people on a list. Other points we had much shorter lists and even in conversation with some of the folks that have done this for other states, when the room gets too full, nobody gets a chance to say much, right. So we are intentionally having a smaller group of folks outside of New Jersey that stay with us through a multi month engagement. And then we're using a separate strategy for engaging different affected impacted stakeholders.

**Nathaly Agosto Filion, DEP**

I hope that's clear. My don't absolutely like invite feedback on that approach. There's not a specific question in the feedback form that speaks to that sort of how we're doing feedback generation, but there are several open comment boxes where you are welcome to give some advice or what have you want that.

**Nick Angarone, DEP**

And again, our colleague Rebecca Hill has posted a an e-mail address [climateresilience@dep.nj.gov](mailto:climateresilience@dep.nj.gov) that you can utilize to reach out to us.

**Shamay Phillips, DEP**

OK. And Deborah, as you have a question. Go freedom, meet yourself. Maybe that was an accident.

**Shamay Phillips, DEP**

OK, I'm going to go to JV ICC guest. I'm not see there's a question every a hand raised there too.

**Debra Italiano**

Actually I'm I'm. I'm back. I'm sorry. I'm having trouble navigating teams today.

**Shamay Phillips, DEP**

O.K.

**Debra Italiano**

I I would have, I would have. I would have chatted this. Yes. Is. Is this gonna be posted as a presentation cause this is a nice share with some people who mess today.

**Nathaly Agosto Filion, DEP**

OK, this is Debra's voice.

**Shamay Phillips, DEP**

Yes.

**Nathaly Agosto Filion, DEP**

Absolutely.

**Debra Italiano**

So would this be posted to your website then?

**Nathaly Agosto Fillion, DEP**

Yeah, we'll have the webinar. We think it'll probably with the sort of internal time lag to get things on the website, we'll probably have it up on Monday as well as the slides, both the recording of this session and the slides will be up on the website early next week.

**Debra Italiano**

Terrific. Thanks, Nathaly.

**Shamay Phillips, DEP**

OK. Then JV, were you able to unmute yourself? We're kind of stacking the raised hands. Didn't mean to raise a hand. OK, that's fine.

**Shamay Phillips, DEP**

OK. And I also see, Kirk, you have your hand raised if you want to come off mute?

**Kirk Frost**

I am I off mute? Do you hear me?

**Nathaly Agosto Fillion, DEP**

Yes.

**Shamay Phillips, DEP**

Yes.

**Kirk Frost**

Oh good. And I'm sorry, I actually didn't get to see the presentation I started. I thought it started at 4:30, which was my mistake. Umm, I think one thing I didn't see in the outline is the aspect of. Methane emissions and. What I've discovered in the past six years is that. I've been doing quite a bit of research on facilities in New Jersey. A number of them, and also many others in the country, but. Uh, I've been astonished to find out that one example that I had submitted a comment into. And JDP last year defined that they're potentially emitting. More than 600 tons of methane every year, but the NDP? The is there only reporting one ton of methane every year in their annual reports.

**Kirk Frost**

The NDP permitting acknowledged that there might be a a problem and they had forwarded my comment on to the Compliance division and I've spoken with the Compliance division about it in the they're actually researching it. I'm gonna try to help them understand it better, but one of the things I've discovered is that one, we're not. One companies are not reporting their venting annually as they're supposed to, and then two, we're not. And New Jersey is not tracking or allowing them to dictate what's tracked in currently, even in the permitting. We're only looking at combustion methane emissions.

**Kirk Frost**

So, and to me, this is fundamental in terms of climate change and climate resilience, because if we don't really understand our impact to the area, the environment and and the the upstream supply, most people don't understand the total amount of missions that's occurring every day. And it has in methane. Concentrations actually occur locally, so if you review Noah monitoring sites of atmospheric concentration of methane, you can see one that they're man made two, that they're locations near natural gas. Main lines. Are increasing. We have one off of Cape May and we're much higher than the.

We're much higher than the global average of concentration for that location, so. It gives me the concept that methane concentrations are highly impacted by the. What's being released locally in addition to the concentrations globally and methane when it's first emitted is. There's 120 times at emission .120 times the warming potential of carbon dioxide. Not this. You know, we use this 25 times multiplier, but that's based off of the methane being emitted 100 years over 100. So it's looking at the methane 100 years after it was emitted.

**Kirk Frost**

So our our concept in terms of climate resiliency, climate modeling. Is is misplaced in terms of. Trying to figure out what the when and how why we're being impacted on climate change. We're we're not really seeing the concentrations. I also found out and I'm sorry. Yep.

**Nick Angarone, DEP**

I wanna. I wanna interrupt you so because I do wanna be able to get to to other comments and questions here. So let me let me say first that.

**Kirk Frost**

OK. Yep.

**Nick Angarone, DEP**

Right long term for long term for climate resilience and the most important thing we do can do is address our greenhouse gas emissions right, including methane, right, which we know is much more. You know, has much signal, more significant impacts than carbon dioxide.

**Nick Angarone, DEP**

I I you know, to the extent that you know there are, there are other programs going on within not only DP with but within the state of New Jersey that are focused on emissions specifically which you know based on kind of your your some of your comments your you're aware of and already in in communication with.

**Nick Angarone, DEP**

So again I'd I'd urge you to take a look at the. You know the the online form and provide whatever comments and recommendations you have, particularly around the resilience, action plans and and extreme heat in particular, and certainly again, if there's something that doesn't quite fit into that form to utilize the e-mail that's been posted. So thanks a lot, but let's make sure that we're able to get to get to some others. Thank you.

**Kirk Frost**

Thank you.

**Shamay Phillips, DEP**

Thank you. We have some more questions in the chat. So one question is from chip. He said it's a question for the future. I have government agencies are responsible for identifying their own relevant actions. How will effective actions and fidelity to those actions be assured? I'm thinking of the Paris Accords as in an analogy, goals were voluntary and countries would pull out from the cords at any time without much consequence. Wondering how New Jersey will avoid a similar dynamic.

**Nick Angarone, DEP**

So Chip, I think the answer here is kind of at multiple levels, right? So, so one kind of make producing producing the this resilience actually plan or any of the resilience action plans and identifying identifying those actions and and some of the information within within the tables, right that that that Nathaly presented one kind of lays lays out laser states cards on the table right for us to be able to tell you what is it. What exactly it is we intend on doing? It's also our intent as as we kind of build the these resilience action plans and working with our state agency partners to provide not only updates on the resilience action plans themselves, but some level of some of tracking or reporting on what we're doing. So we will certainly be, it's our intent to be transparent about about how the the action plans are actually getting implemented, how we're moving these things forward. And so, and you know, you'll be able to see and call us on it, frankly, if if we're not. If we're not implementing the actions that we've identified.

**Shamay Phillips, DEP**

Thank you. Another question, the chat from Jonathan, will this plan be made in conjunction to the new upcoming Energy Master Plan?

**Nick Angarone, DEP**

So we'll we'll certainly be looking for opportunities to. Yeah. How do we wanna say this for the for opportunities to kind of coordinate with not just other state agencies, but other kind of you know, major initiatives at the state?

**Nick Angarone, DEP**

I I expect honestly that this, this the extreme heat resins action plan will be out and draft and probably final form before the update to the to the Energy Master plan. But we do work with all the all the state agencies including BPU who were you know significantly involved in the Energy master plan and we're looking for kind of alignment opportunities for alignment coordination, ways to leverage. Ohh there was actions to make sure that we're meeting all of the states goals.

**Shamay Phillips, DEP**

Thank you. Another question that chat from. Can will your plans include resources needed to implement them, budget and manpower, and possible new laws and regulations?

**Nathaly Agosto Filion, DEP**

We're taking turns answering questions here it seems.

**Nick Angarone, DEP**

Go ahead.

**Nathaly Agosto Filion, DEP**

I'm like, we're like on and off and on and off.

**Nathaly Agosto Filion, DEP**

So we want the actions to include a variety of activities that are happening already, that advance extreme heat resilience activities that are being sort of somewhat modified to increase the extent to which extreme heat is addressed as well as aspirational goals. And it will have to be a mix of. You know. Oh, I'm sorry. I'm. I'm sort of mixing questions here, but it would have to be a mix of action types in order to be able to sort of advance the cohesive vision that we're trying to advance for resilience with respect to budget and manpower.

**Nathaly Agosto Fillion, DEP**

The specifics around how we would go about implementing those things. As you saw in the presentation and we can go back to the slide, if that's helpful, the level of specificity is not like super detailed in each of the actions. You'll certainly see a description of what it is that we're trying to accomplish and why that's an important thing to do as well as some description of sort of a brief description of an implementation pathway. But the sort of detail of the how would be within the authorities of the respective agencies that are advancing that work. So I don't think that there would be. You know specific budget numbers associated with each individual action. In cases where there isn't current budget allocation, the agency would have to include a plan for a new initiative in a future budget cycle and their budget cycle requests that go to the legislature, et cetera. So it's sort of a mix, I guess, to answer your question.

**Nick Angarone, DEP**

Yeah. And I guess I'll, I'll just add, right, we want some of this to be aspirational, right? If there are, if there are things, you know programs, you know funding, decision making. New regular new authorities or rags or whatever, whatever the case might be that that we don't currently have the resources for or the authorities for, right, we we. But we think that they would be significantly impactful. We wanna lay that out and I think perhaps this is right. This is an action plan, right, figuring out how we what actions we take to make make this happen to get to our goals. And so we we do want to kind of have that broad. That brought a mix of types of actions.

**Shamay Phillips, DEP**

There's a question from Ruth, my fifth community. Quakers would like to know how I can assist with resilience efforts in our communities. Will you consider in your planning how groups like ours can help with resilience?

**Nathaly Agosto Fillion, DEP**

That's a really great question. I appreciate it very much. I'm trying to think ahead to the kinds of actions that agencies might advance, and often agencies are thinking about a primary audience that is specific to their programs and and. And I can't think of a single and maybe this is just a gap in my own knowledge of all the responsibilities of the various executive branch agencies, but I can't think of 1 where they center faith communities as one of their primary audiences and constituents of their surveying. I might maybe I'll sort of open it up to others to help guide me here.

**Nick Angarone, DEP**

Well and.

**Nathaly Agosto Fillion, DEP**

But what I'll say more broadly to the to the point of being wanting to be involved and resilience efforts, certainly there's there's no question that we all have to be part of what it is to become a more resilient New Jersey. And I would be very happy to, you know, sort of offline a conversation with you that brainstorms around how to how to advance that work with your community, with based community in general.

**Nathaly Agosto Fillion, DEP**

Nick.

**Nick Angarone, DEP**

Yeah. And I think I'm gonna add on, I'm adding on to your list your last comment there, right, you know on, on, on the extreme heat resilience action plan or any of the specific actions or kind of resilience broadly, right? We need to analyze point like everybody, everybody and everything, right is gotta be is gonna be the answer. And so we're we're happy to partner and coordinate with with groups across the state.

**Nick Angarone, DEP**

And I think it's something that I think is becoming more and more part of the conversation, but it's just. The recognition that kind of right. You know, you're you're kind of your local organizations or community based organizations, your you know, your faith communities, you know your, you know, are really the kind of the trusted sources of information frequently for for our community members and kind of some, you know, utilizing information and kind of those avenues is is really a critical component to making sure that you know we're reaching you know, all of our all of our communities, all of our, all of our citizens, all the people in the state.

**Shamay Phillips, DEP**

OK. Also, I just wanted to remind everyone about the scoping doc that is online as well as the completing the public feedback form. I'm gonna drop the links in the chat again just so everyone is able to review them. Thank you for putting them on the screen, but I just wanted to give a reminder that all the information will be online.

**Shamay Phillips, DEP**

Umm. And we're gonna try to answer some more questions and being cognizant of the time, I see some things in the chat. Uh, leave. I see we can. You've got some follow up from the your question before and.

**Nathaly Agosto Filion, DEP**

I wanna. OK, so let me read it out loud. Of course. We're recording the session. We want to make sure that people are watching this later. Get a chance to sort of get the the full gist of the conversation. So the comment is so without specificity and no details on what needs to be done. How will anything happen? This sounds like writing a plan is the goal.

**Nathaly Agosto Filion, DEP**

I certainly from my own personal I just speaking as a a person who very much feels the urgency of the climate crisis and works as the climate practitioner today basis. That is not what I'm about and I don't think that's what any of the folks that are part of the office of Clever Resilience are also trying to do either. They're just naming that obviously.

**Nathaly Agosto Filion, DEP**

You know, I I don't know how much weight that's gonna hold and and responding, we want to be able to write plans in a way that all of our agencies can participate. And I think it's important that we are able to advance the work, even if that means that we don't have all the specifics of how to advance the work. I think that's sort of speaking from my own perspective. Personally, if we wait until we know all the details before making any commitments, then we're also in a situation that doesn't advance relative to the urgency of the climate crisis.

**Nathaly Agosto Filion, DEP**

So doing our best, very open to feedback, recognizing that a you know a very a plan that takes a really long time to write and to answer all of the specific questions is doesn't exist. We won't have a plan if we if we wait till all the details are ironed out and we really wanna be able to elevate the importance of this issue.

**Shamay Phillips, DEP**

Thank you. And we have a comment in the chat from Lisa. I would love to see an updated heat map of New Jersey, the one from ARC GIS represents a screenshot of the surface on a specific day in June. Cloud the skies. It's Landsat 5 for the thermal Infrared Band 6. The spatial resolution is 120 meters, so any detailed better than that on the map is statistically generated, interlocked and blended between pixels. Just want to uplift that for anyone who's.

**Nathaly Agosto Filion, DEP**

Yeah.

**Shamay Phillips, DEP**

Not able to read chat.

**Nathaly Agosto Filion, DEP**

Totally agreed with you, Lisa. I would love that too. You've been having some conversations internally about how to get there. There's a couple of approaches from some, you know, private sector folks that would require the department to either generate, you know, secure resources to be able to do that. There are some other ways of doing this work, that it is a tighter resolution, certainly something that we need to look at. So appreciate you uplifting that comment because you know our our satellites only fly over New Jersey every so often. And if it's a cloudy day then you know, we don't get the best data.

**Nathaly Agosto Filion, DEP**

And it I wonder if there's any other thoughts you have on that specific question, Nick, that you can uplift as well.

**Nick Angarone, DEP**

Well, Lisa's talking in a lot more technical detail than I can certainly comment on, but I'll just say that we are working with some of our NGO and academic partners to, you know and other state agencies to also identify opportunities to kind of expand the data that we have to to use in our, in our planning and decision making. And I think some of that you'll hopefully see coming out from them, not from us necessarily. In in the coming weeks.

**Lisa Johnson**

OK. Thank you so much. Yeah, I mean, we just need better access to drones with, with, with capabilities. So, alright, thank you.

**Shamay Phillips, DEP**

OK, I'm going to give it another minute to see if anyone has any other questions to add in the chat. But while we wait, I'm not sure if any of the panelists have any last remarks.

**Shamay Phillips, DEP**

Oh, I see, there's a question. Joe, feel free to I'll meet yourself.



**Joe Santaniello**

Hi and thank you for taking the question. I'm just curious as we take this forward, what are you doing or who's helping you being very critical of your messaging? Because as I read this scoping document, the choir's gonna sing, right? They're gonna believe in this. But you have to get to a broad audience than that, and we won't get to the real deniers. But you have to get to the middle, the undecided or the more concerned about economic factors of this. And as I read this, I see it very much resonating with the people who believe and I'm not sure it will resonate with the people in the middle. It might be a negative, a negative reaction.

**Joe Santaniello**

So in order for this to have legs beyond what administration you're you're you're messaging is extremely critical. So. So what are you doing or how are you looking at that to be critical of yourselves? As your message this.

**Nathaly Agosto Filion, DEP**

Yeah, it's a really great point, Joe, and it's one that we're putting a lot of thought and effort into just as as an office of climate resilience, right, because our work is beyond any given initiative or rap there. This is a a sort of a consistent need. There's a whole sort of industry of climate professionals that are focused on communications and and how we. How we address the the needs of of this urgent situation in a way that doesn't. Pivot people towards fear or hopelessness.

**Nathaly Agosto Filion, DEP**

I don't have a great answer for you right now. Certainly it's something that we're thinking about quite a lot and we welcome any, you know, specific inputs about suggestions or strategies.

**Nathaly Agosto Filion, DEP**

One thing that I would say, I guess is as a specific to the question of who is that among our advisory group of national experts. We've got folks that are very intentionally looking at effective climate risk communications and are looking for that sort of lens in terms of the, the way that we are putting out materials often the plan document itself is a little wonky, a little boring. It's not really meant to reach people other than people who read plans.

**Nathaly Agosto Filion, DEP**

But once you're doing the work, the messaging around extreme heat and understanding that people. The one of the reasons the silent killer is that people often don't self identify as being vulnerable and therefore don't seek out the appropriate measures at it. That individual and household scale and messaging around that is gonna be incredibly important and critical for people to sort of understand what the scale of the problem is.

**Nick Angarone, DEP**

And Joe, I'll add that or this was a specific challenge identified in in the statewide strategy, right. And you know, if we're, if we're honest with our, with ourselves, not necessarily something that government is also often kind of terribly successful at.

**Nick Angarone, DEP**

And so. Kind of trying to take a a broad approach to this and you utilizing every tool and and pathway to kind of have have these conversations again kind of by reference like some of the kind of community

based organizations. But looking at making sure that as we work with our state agency partners and our other NGO and academic partners right that we're we're utilizing kind of their their networks and their their stakeholders to kind of. You know, broadly kind of broadly talk about the issue, it's it is something that. You know that takes a significant amount of effort. Umm.

**Nick Angarone, DEP**

As you know, as we've seen, you know, we do also do a lot of kind of community based planning and you know it is I think kind of the the most intensive but also the most critical aspect of that work and and that's no different when we kind of approach it from you know a state scale.

**Joe Santaniello**

Thank you. How how? If I can ask another one how? How does someone who's not in an organization just public, and I know there's public comment, but beyond public comment, how do you get more directly involved?

**Nathaly Agosto Filion, DEP**

Our hope is to have a really targeted strategy in the summer months that focuses on different sectors that are highly impacted by extreme heat.

**Joe Santaniello**

OK. Thank you.

**Nathaly Agosto Filion, DEP**

Of course.

**Shamay Phillips, DEP**

I don't see any follow up. Must I mean any follow questions in the chat? So if there's any last remarks or thank yous can open that up now to the panel.

**Nick Angarone, DEP**

I'll I will just say thank you for coming. Thank you for everybody who who stuck with us through the through the full hour.

**Nathaly Agosto Filion, DEP**

Completely echo that I see one more hand up. Respecting that folks might have to leave right at 5, so obviously we can take that one last question. Jonathan.

**Jonathan Gordon**

I was just. Yeah. I was just gonna say thank you so much for the the work that you're doing here, the tools that you've provided in the past few years have been great. And with especially the Inflation Reduction Act, having this as another piece of our foundation is gonna make a lot of our efforts collectively a lot more impactful. So thank you for taking the time and doing this.

**Nathaly Agosto Filion, DEP**

Thank you all so much. Please join the March 2nd webinar if you'd like another opportunity to sort of offer comments and to advance this work. And please fill out our feedback form.

**Nick Angarone, DEP**

Thanks everyone. Have a good night.

*NJ Resilience Action Plan Webinar  
February 9, 2023*

**Nathaly Agosto Filion, DEP**

Thank you.