
Governor's Council on Climate Change (GC3)

MEETING MINUTES

Meeting Date: December 18, 2020
Meeting Time: 9:00 am - 11:00 am
Meeting Location: Zoom
[Meeting Recording](#)

ATTENDANCE

Attendee	Title	Organization	Present
Heather Aaron	Deputy Commissioner	Department of Public Health	√
Patrick Brown	Chief Technology Architect	The Hartford	√
Katie Dykes	Commissioner	Department of Energy & Environmental Protection	√
Claire Coleman	Undersecretary	Office of Policy & Management	√
Lee Cruz	Director of Community Outreach	The COMMUNITY Foundation for Greater New Haven	√
Rebecca French	Director of Resilience	Department of Energy & Environmental Protection	√
Matthew Fulda	Executive Director	Connecticut Metropolitan Council of Governments	√
Deb Geyer	VP Environmental Health & Safety and Corporate Sustainability	Stanley Black and Decker	√
Kevin Grigg	President & CEO	Fuss & O'Neill	√
Bryan Hurlburt	Commissioner	Department of Agriculture	√
Curt Johnson	Executive Director	Connecticut Fund for the Environment	√
George Kral	Town Planner	Town of Guilford	√
Andrew Mais	Commissioner	Department of Insurance	√
James O'Donnell	Executive Director	Connecticut Institute for Resilience & Climate Adaptation	√
Frogard Ryan	Executive Director	The Nature Conservancy	√
Aaron Budris			√
Adelaine McCloe			√
Adrienne Houel			√
Alanis Allen			√
Alec Shub			√
Alex Rodriguez			√
Alexandra Daum			√
Ali Ghiorse			√
Amber Garrard			√
Amy Paterson			√
Amy Velasquez			√
Andrew Droney			√
Anji Seth			√
Anthony Cherolis			√
Brenda Bergeron			√
Brian Thompson			√
Carol Youell			√
Cary Lynch			√

Charles Rothenberger			√
Charlie Horn			√
Chelsea Gazillo			√
Cheryl B Cappiali			√
Chris Donnelly (Chris Donnelly)			√
Claire Sickinger			√
Connie Manes			√
Connor Rockett			√
David Sutherland			√
Denise Savageau			√
Diane Lauricella (Jeff Howard)			√
Dorinda Borer			√
Edith Pestana			√
Elias Petersen			√
Elizabeth Dempsey			√
Emily Alexander			√
Emily Basham			√
Emily Lewis O'Brien			√
Eric Hammerling (Connecticut Forest and Park Incorporat)			√
Frank Cervo			√
Gannon Long			√
Garrett Eucalitto			√
George Bradner			√
Holly Lalime			√
Huan Ngo			√
James Albis			√
Jean Cronin			√
Jerry Milne			√
Joanna Wozniak-Brown			√
Jocelyn Mullins			√
Joe Gresko			√
John Cecil			√
John Truscinski			√
Julie Wagner			√
Kai Starn			√
Karen Schnitzer			√
Kathy Fay (Kathy Fay)			√
Katie Lund			√
Kayleigh Royston			√
Kevin O'Brien			√
Kimberly Stoner			√
Kipen Kolesinskas			√
Kris Kuhn			√
Laura Bozzi			√
Laura Cahn			√
Lilian Ruiz			√
Lillian McKenzie			√

Lisa Hayden			√
Lori Brown			√
Lori Dargis			√
Lori Mathieu			√
Louanne Cooley			√
Lynn Towill			√
lynne bonnett			√
Marianne Engelman Lado			√
Marissa Rivera			√
Mark Mitchell			√
Martha Page			√
Mary Pelletier			√
Michele Helou			√
Michelle Eckman			√
Nathan Frohling			√
Patrice Gillespie			√
Patricia Taylor			√
Paul Hearn			√
Paul Roselli			√
Paula/Dan Coughlin			√
Pippa Bell Ader			√
Rachel Hiskes`			√
Ralph Jones			√
Rick Newton			√
robert bell			√
Robert LaFrance			√
Royal Graves			√
Rudy Sturk			√
Ruth Canovi			√
Ryan Hughes			√
Samantha Dynowski			√
Sara Pyne			√
Sarah Krame			√
Seila Mosquera-Bruno			√
Shannon Kearney			√
Shanté Hanks			√
shirley mccarthy			√
Stefanie Keohane			√
Susan Barney			√
Susan Masino			√
Susan Quincy			√
Tamara Muruetagoiena			√
Thomas & Olson			√
Thomas Morgart			√
Todd Berman			√
Tyler Anderson			√
Wayne Cobleigh			√

AGENDA & NOTES

Welcome and Announcements

Rebecca French welcomed GC3 members and attendees to the meeting and began rollcall of GC3 members at 9:03 am.

The recommendations being reviewed now are actions that should be taken urgently in the year 2021.

The Equity and Environmental Justice (EEJ) work group is cross cutting between the two subcommittees, Adaptation & Resilience and Mitigation. In addition, the EEJ work group provided feedback to all of the other working group reports.

Equity and Environmental Justice Recommendations review

1. Develop and identify funding for a community engagement strategy to inform the 2021 GC3 planning process and implementation

- Deb Geyer: No concerns about this first point. Completely agree.
- Frogard Ryan: Very much in support.
- Curt Johnson: There was unanimous support for this in the funding group. The state should step up in funding this because it takes time to get funding in place.
- Lee Cruz: Sometimes it does take time to ramp up private philanthropy. There should be a conversation between all of the leadership of community foundations and private ones across the state.

2. Develop, launch, maintain, and use a statewide environmental mapping tool that provides a visual representation of the spatial distribution of environmental and climate health vulnerabilities across Connecticut

- Heather Aaron: Would this system include other agencies or just DEEP?
- Katie Dykes: The goal is for this tool to have broad statewide utilization and interagency use.
- Michele Helou: At the Department of Housing, we already use the OPM CT arc GIS system, which includes things like floodplains, storm surge, priority funding areas, and I wonder if it could be expanded to do some of the things you're talking about.
- Claire Coleman: This is a policy priority but in terms of feasibility, we are facing a \$2 billion budget deficit. These are urgent recommendations coming at a really tough time in our budget reality world.
- Katie Dykes: Including this in our list of actions for 2021 allows us to have a clear signal for developing this type of tool. There's a lot of data out there and we will need to get the scoping piece identified as an early step.
- Lee Cruz: The larger community foundations have data they have been collecting for years which might be helpful in partnership with universities and data CT and specifically with Mark Abraham. The state and cities need this for planning but it's also important to get information out to every day folk who are going to be a part of

this process. Let's make sure we are not keeping all of the information to ourselves and that it gets out to the general public.

- Matthew Fulda: Very much supportive of this recommendation. We also offer, in addition to state agencies, the regional council of governments, working with municipalities to help inform this collaborative data effort as well.
- Frogard Ryan: We are very glad to see this recommendation. Very in favor of a mapping tool. Using it to steer funding to communities most affected.

3. **Prioritize mitigation strategies in vulnerable communities**

- Katie Dykes: This recommendation is really woven into many recommendations within the mitigation subcommittee strategies. However, it's important to note this as an overarching recommendation from the EEJ working group here.

4. **Establish Connecticut community resilience program**

- Rebecca French: In this case, and with other work groups, there were recommendations that overlapped. This recommendation was created through combination of overlapping language from the EEJ work group and the Infrastructure and Land Use work group.
- Andrew Mais: In the penultimate paragraph, where it states "Focus of this engagement would be on more resilient development, land use and building practices" would it be possible to expand that by including resilient construction standards. We have had an issue on the state standards that are available not being adopted.
- Katie Dykes: I would be in favor of that.
- Matthew Fulda: Very supportive of the addition of that final sentence.
- **James O'Donnell: I support this but missing from this recommendation, I would like to strengthen the attention to try to solicit participation of minorities and underrepresented groups. Lee Cruz's idea from recommendation 1 should be wrapped into this so that the need is really to amplify the voices from those communities and that point is not made here.
- George Bradner: If we can get more philanthropic organizations to help with this, I think that goes a long way for some of the funding issues that are associated with it.
- Claire Coleman: Convening of philanthropic organizations. Convene those groups and get a feeling about where we can have philanthropy to step in and add to these programs.
- Katie Dykes: To capture Jim's point, perhaps we could add: Facilitate dialogue amongst vulnerable populations, state, regional, and local stakeholders. And we can continue to keep the end of that sentence as well.

Presentation from Science and Technology, James O'Donnell

Katie Dykes explained the executive order called for the report to include a summary of all of the best available science.

James O'Donnell presented the projected climate impacts for Connecticut including a review of sea level rise, temperature, and precipitation.

- Expect that there will be updates to the science every 5 years. It's important to have a review of the science added to the report.
- 20 inches by 2050 sea level rise. This is not very sensitive to CO₂ emissions. For models with different CO₂ emissions scenarios, whether it's rapid or slower, at 2050 there is not much of a difference in sea level. This is because of cycling of carbon in the environment, which is relatively slow. Even if we stopped carbon emissions right now, the climate would continue to warm and sea level would continue to rise.
- Average temperatures are going to increase. Up to 5 degrees Fahrenheit by 2050.
- Both sea level and temperature increases are expected to be higher in CT than elsewhere.
- An increase in temperature of 5 degrees does not seem like a lot but it changes the statistics at the extremes. This leads to a long list of measures of extreme weather.
- It is important to note that after 2050 things continue to get worse. 2050 is a planning threshold but it is not the end of the story, things will continue to rise.
- Drought frequency will increase.
- Evidence that intensity of tropical storms has increased. It is difficult to be precise about these projections at the moment but in 5-10 years we should be better able to assess this.

The GC3 members discussed the review of climate change impacts in Connecticut:

- Lori Matthew: What can you say about the frequency of drought?
- James O'Donnell: Precipitation will increase but evaporation will also increase. The important piece is the difference between the two. There's no quantitative estimate that we can provide but the important thing is to keep track.
- James O'Donnell: The reason we were able to do this is that there was a lot of underlying work. The impact of these changes is what people really care about in their daily life. There is a lack of data on how temperature changes etc. will affect different people in different parts of the state and that is something we need to improve.
- Lori Mathieu: All of our drinking water reservoirs have a safe yield recommendation that is 40-50 years old and do not consider any of these climate change impacts James O'Donnell just reviewed.
- Katie Dykes: This summary will be included in the report that goes to the governor in the main report. We will make sure that everybody has access to it.

Full GC3 Discussion of Near-Term Recommendations

Katie Dykes: We have already had discussion on these at the subcommittee level so we will have general discussion about them now. There were a few changes made based on the subcommittee discussions that we can go over but for the large part they remain unchanged from what the subcommittees saw. It should be noted there is a lot of overlap in the recommendations. We have intentionally not tried to consolidate because these summaries of recommendations align to much more lengthy descriptions of the recommendations included in the working group reports. This helps us not lose track of the underlying working group reports and recommendations, especially given the timeline of getting the recommendations to the governor in January.

We will put this list on the GC3 website and invite comment. Our goal is to seek this comment by the first week of January. The full GC3 is meeting on January 15th. This is a rapid comment process but the idea is these are urgent, near-term recommendations. The process will continue into 2021, so if items do not appear on this list, that does not mean these items will not be pursued. In 2021 the whole list will be reviewed. This is just the first cut of items for action in 2021.

Curt Johnson: Thanks to Rebecca and Claire for starting the conversation around potential solutions for the challenge the state has in administering and personnel for future competitive grant opportunities for resilience and adaptation. Getting the funds out to as broad an array of capable implementers as possible is a critical path.

Kevin Grigg: One of our priorities should be continuing to winnow this down and remove redundancies so that when this is presented to the governor in January we can focus on getting those few items done.

George Kral: I would like to reinforce the point that Kevin made.

Katie Dykes: Doing that risks making this list unrecognizable to all of the stakeholders who worked on the recommendations. This is not a work plan but instead sets an intention. This is a document that reflects what hundreds of experts have identified as what we need to do and then we can build our to do list in parallel.

Frogard Ryan: Focus is important but at the same time, it is good to start with a comprehensive list so that we do not miss anything.

James O'Donnell: Recommendations 23-26, I would have integrated them because they are all part of a similar idea but now I see the benefits of how you have framed this.

Kevin Grigg: I don't want my previous comments to be misconstrued. I think the process is great, just want to make sure it leads us to where we want to go.

Deb Geyer: Piling on to Kevin's comment. We really want to get going.

Rebecca French: I'm sensitive to not losing the detail but at the same time making sure that readers can find the top level and then go into the sub bullets as needed.

Katie Dykes: We will be posting this draft on the GC3 website later today so that the public can look at it.

Curt Johnson: Building on Kevin's point, the near-term action list for 2021 and early 2021 could be paired down from this.

Kevin Grigg: It strikes me that we need to do some prioritization and who better to prioritize than the groups that made the recommendations.

Claire: From a policy planning and budget development perspective, given the timing with all the budget and legislative discussions going on right now, that seems like a very difficult task to go back to all of the working groups to do to go back to the working groups about top recommendations. I would urge this document, as developed, to be finalized and put out.

Lori Mathieu: It could be very helpful to have everyone create a top 10 list of recommendations.

Katie Dykes: This is just the beginning of our prioritization. I agree with what Claire said with, there are opportunities right now with budget development, the legislative session kicking off etc. and it will be very impactful to have this list ready for January 15th. There may be a way while we can solicit feedback from commenters. We will explore what might be feasible but the most important piece is that we finalize this list by mid-January. Having this list and having it in a timely fashion is actually the most critical thing for ensuring that action will occur.

Public Comment

Connor Rockett: Hi. Thank you very much for the opportunity to make comments. I'm with New England Forestry Foundation, which is a conservation group throughout New England and we protect forest land for public use and promote sustainable forestry. One comment for the GC3 members is to kind of highlight and consider, as you are working on this document this list of recommendations for action items, we at New England Forestry Foundation are strongly in support of the recommendations around the use of building codes, and in particular using them proactively to mitigate climate change. But one action item that we're hoping you'll consider is the importance of adopting the 2021 edition of the International Building Code (IBC) ahead of schedule. This is a code that includes provisions for sustainable construction materials that are not currently in place in Connecticut, particularly the use of mass timber, which is potentially a locally produced material, but also one that when the forestry practices are correctly implemented in the sourcing of the material, it's much lower carbon than steel and concrete, so the implementation of the 2021 IBC is just a powerful short term step that you could take to reduce the impact from

the building sector on our climate. California, Washington, Oregon, Massachusetts, and Utah have already made plans to adopt the code on an accelerated schedule. So we're just hoping that Connecticut will so prioritize this code update and that's all. Thank you very much.

Lynne Bonnett: I think it's important for the legislature and the governor to understand that the public needs attention for all of these things and that the vulnerable communities have been left out. This is the first time there's been any concerted effort to bring them into the process so, yes it's a big list and perhaps it will open the eyes of people that make decisions about what the needs of the people are that live here. And then the other comment I wanted to make has to do with the fourth item in the EJ recommendations where it says "addressing community resilience by building partnerships with the philanthropy community". I was a little confused, I feel like the importance, I don't want that to be in lieu of policy decisions that need to happen in terms of building and favoring heat pumps over fossil fuel, you know, all of those things that were brought up in the working groups and it reads as if we're asking that the philanthropy group step in to substitute for the lack of public policy decisions on mandating more efficient buildings. I don't know if I miss interpreted it or not but that was my gut reaction. Thank you.

Rachel Hiskes: I think this effort is so important. I lived in Puerto Rico and the Caribbean in 2017 when Hurricane Maria hit and even though we're far to the north, I think it's clear that less and less, we have the storms that we'd like to see here, the snow, the colder temperatures and this effort on the part of public officials, on the part of volunteers leaders, and the environmental community in Connecticut, is so important to get this legislation through. I do think that the chance for change in a time of crisis is so much greater in Connecticut, as being a brave representative of with various sectors coming together. I think that the fact that there are so many public officials, commissioners and deputy Commissioners taking part in this initiative, is a great step forward. Just having this go out via community and base level grassroots organization is very important. I really applaud you Rebecca and Commissioner Dykes on getting this out and being as inclusive as you can to get this effort moved forward. Hopefully in the upcoming legislative session we can see the same energy and emphasis on proposals to get a more structural solution to climate change similar to what we're seeing on the federal level. On a statewide level there needs to be sort of an apparatus that includes many of experts that are on this call, but also community residents that are working towards getting climate change measures and infrastructure working.

Mary Pelletier: One thing that GC3 committees could do is prepare a spreadsheet for accountability for a kind of lead rating system. One reason why the lead rating system was so capable in changing the construction industry is it requires a spreadsheet of accountability, a timeline of implementation, throughout the building development process. I think some of these recommendations could do that, especially on state lands. I live across the street from the UConn law school and several other state properties in the neighborhood, and I must admit they're clearly State environment policies that aren't being followed by the facilities managers. Having someone just making those happen is

something that could happen in a year, in this first year, creating accountability. I noticed in the chat other people brought up issues about idling and so forth. That is something the governor can do and it can help show that the state is serious about these efforts. These committees could perhaps develop a spreadsheet that identifies an accountability review and what citizens and nonprofits can help review that those policies be implemented and on what timeline.

Denise Savageau: I want to applaud the effort of simultaneously taking up the 2018 building and low carbon future for Connecticut and achieving a 45% greenhouse gas reduction by 2030 and the 2011 climate change preparedness plan and updating them, although it is an enormous undertaking having one plan that addresses mitigation adaptation and resiliency moves Connecticut towards a sustainable future. I also commend the emphasis that has been placed on equity and environmental justice from the start, no plan is sustainable, if it does not recognize and address the impacts to our most vulnerable and underrepresented communities. With the global population expected to reach 10 billion by 2057 human impacts to our natural resources will continue if left unchecked and will certainly be exacerbated by a warming climate. United Nations has recognized the nexus between food, water, and energy in states, that their inextricably extractable linkages between these critical domains require a suitably integrated approach. Connecticut may seem far removed from this global context but it is not. It is at the state and local level that the work will be done. It is important, therefore, that we embrace the integrated approach that the GC3 has started and make sure that we don't abandon it, no matter the difficulty. It is our path to addressing climate change and ensuring a resilient future that includes food security, clean water, and clean air and renewable energy. The working and natural lands work group of the GC3 was appropriately identified as a crossover group for the whole GC3. This was a change from previous reports that focused heavily on energy mitigation or climate change adaptation. All the working and natural and subgroup reports focused on ecosystem services provided by the working and natural lands and their intrinsic value in mitigating greenhouse gas as carbon stores and providing resiliency as we adapt to climate change. Specifically, the reports documented the importance of soils, including prime farmland, wetland soils, sub aqueous soils, and our forest as carbon sinks. More importantly, the reports identified numerous ecosystem services provided by working and natural lands that are critical to providing clean water, clean air, and abundant local food. It is evident that we protect and restore natural resources, with a focus on their ecosystem services, we will have a solid foundation for our climate change goals. From an equity perspective, healthy ecosystems equals healthy communities. I strongly encourage the governor's Council on climate change to look at the working and natural lands recommendations as primary and not secondary to the mitigation adaptation, as they have the core foundation for climate change implementation in Connecticut.

Diane Lauricella: First of all, I wanted to thank all of the many people at every level of government and NGOs and citizens for participating in this unique process. I wanted to urge the body of GC3 not to fear the details. I wanted to note in my observation of the proceedings today that it is the men that have thought about compartmentalizing and boiling down into actionable items. It is the women on GC3 who have said listen, this is a foundation, agreeing with Commissioner Dykes. I am a member of the working group for

equity and environmental justice and I think this has been a phenomenal exercise. Not everything we hoped and dreamed for has been included in this document but it is a first step. I want to urge all of you in GC3, as you're going through all of the many good ideas, please avoid just going for the low hanging fruit. Our state has done that for too long. I also want us to avoid recommending to the legislature that we do pilot projects all the time as we saw with the issue related to solar because we stalled for years. My final wish is that we do not be afraid of the detail that men and women come together.

Gannon Long: I was part of the transportation subgroup for some of this and I just wanted to raise a concern that Aziz and Tony had wanted to but didn't have the chance to in this discussion previously, which is the specific recommendation around vehicle miles traveled from their group had been altered to be less specific. They were concerned about that and it's important to be able to set that specific goal. I also just want to thank everybody for the hard work. I understand what people are saying about prioritizing. I think it's time to start figuring out where we are and moving forward. Maybe the next meeting like this could be a gathering where we run through that whole document, maybe each category has a few people's names associated with it that are leading that effort. As much as folks can be clear about what the agenda to the meeting is beforehand and make sure that we're understanding what was going to be discussed as much as any conversation can be taken offline.

Kipen Kolesinskas: I'm on the the ag and soils working group and just wanted to reiterate what Denise Savageau said. Overall, we can't lose sight that this is about sustainability, about being able to keep the planet alive. Things need to be as integrated and interconnected as they really are as far as a recommendation. I think that the messaging that we use is going to be critical. One of the criticisms has been there's been a lot of focus on renewable energy because of the emissions goals. There are so many things that people are currently working on that are long term goal for example, energy conservation and reducing sprawl and more transit oriented development and mass transit. As far as messaging for various groups and for the public we need to make it clear what is already going on that is really important and is endorsed by this group as well as trying to clearly articulate the short and long term strategies. Make it make it clear that energy conservation and reducing sprawl should really be top priorities and that's an important message to get at the municipal and the public level. Thank you.

NOTE: *Slides and presentations are available on GC3 web page: www.ct.gov/deep/gc3*

Meeting Chat

00:13:11 Alex Rodriguez: Good morning! Happy Friday

00:22:31 Alanis Allen: Good Morning everyone! You can privately me if you wish to be added to list for making a verbal public comment.

00:27:00 Paul Roselli: Good Day to all of you! Happy Friday!

- 00:32:00 Gannon Long: Regarding mapping - please check out this report from VEIC, Green Bank, with consultation from Operation Fuel on Transportation, Energy, & Housing burden in CT. <https://www.ctgreenbank.com/wp-content/uploads/2020/11/Mapping-Household-Energy-and-Transportation-Affordability-Report-Oct-2020.pdf>
- 00:32:30 Gannon Long: Data is mapped by census tract. This info is really valuable and the mapping group would benefit from the modeling
- 00:33:24 Gannon Long: VEIC would be a good resource to engage with on mapping as well.
- 00:33:33 Curt Johnson: On mapping, the Sound Health Explorer includes an overlap of EJ analysis and bacterial and nitrogen pollution impacts on coastal and coastal riverine systems. Google Sound Health Explorer.
- 00:33:35 Lee Cruz: Key to mapping success is to include DPH DoH and other state agencies.
- 00:33:47 Kipen Kolesinskas: food insecurity should be a component- will be further impacted by changes in world food production
- 00:35:23 Martha Page: Agree with Kip on the food insecurity comment.
- 00:37:24 Anthony Cherolis: Beyond maps, plans, and policies - We have some work to do, right now, with CT's boards and commissions that work with state departments and our regional COGs. The three commissions I am thinking of right now that I interact with have (1) zero persons of color, (2) no one under age 30, and (3) no one that would consider themselves low income. Lack of representation from many categories is the norm. This lack of representation supports the continued disparate impact of our plans and policies.
- 00:37:59 Denise Savageau: Another important resource for Equity and Environmental Justice is the UConn Institute Engineering for Human Rights Initiative. This is a collaboration between the UConn School of Engineering and the UConn Humans Right Institute. They are very interested in working with the GC3 as work continues into 2021 For more information, contact Davis Chacon Hurtado or Donald Swinton (Director of Development).
- 00:38:13 Denise Savageau: <https://engineeringforhumanrights.uconn.edu/>
- 00:39:17 Kathy Fay: Lee is correct. The mapping is important for both the engagement and the support of vulnerable communities
- 00:39:42 Lee Cruz: Agree that food security data important to include, and to share.
- 00:39:59 Anthony Cherolis: Isn't clean energy the lowest hanging fruit. That's set by the grid strategy and RGGI. Not sure what mentioning that adds to the equity and EJ frame.
- 00:40:56 Kipen Kolesinskas: energy conservation is the lowest hanging fruit and least expensive.
- 00:41:08 Anthony Cherolis: Then it should say "energy conservation"
- 00:41:33 Amy Paterson: The Community Foundation of Eastern CT is funding a CLCC open space mapping project, as part of two regional land trust capacity building programs, which is working now on integrating broader EEJ components. Happy to elaborate: abpaterson@ctconservation.org
- 00:41:37 Jeff Howard: "Clean energy" is often understood to include energy conservation.

00:41:39 Claire Sickinger: For recommendation 2, I suggest looking into a subscription to the Greenlink Equity Map tool (<https://www.equitymap.org/>). Thanks, Claire Sickinger, DEEP-BETP, claire.sickinger@ct.gov

00:42:27 Kimberly Stoner: I agree with Kip - energy conservation is the lowest hanging fruit - and Leticia Colon de Meijas identified many of the barriers to energy conservation in low income communities. Very important to address.

00:45:21 Anthony Cherolis: Greening energy mix hasn't been the equity and EJ challenge - as that's already happening region wide. The challenge for Equity and EJ (tied to energy affordability, rising costs of energy) has been getting energy conservation benefits to low income households and renters.

00:45:33 Laura Bozzi: I agree with Jim O'Donnell's point - the program structure should specify participation by representatives of diverse communities.

00:45:38 Lee Cruz: Thank you James O. totally agree. We will hear the voices of those we residents which we engage.

00:46:56 Kathy Fay: Anthony there have been issues of access to forms of distributed clean energy and barriers to energy conservation that disproportionately impact EJ communities, so yes, it needed to be called out. It was the primary topic that public participants raised over and over again in EEJ meetings

00:47:45 Lee Cruz: Thank you everyone!

00:49:33 Mary Pelletier: It is important to note that properties owned by various state agencies are often not managed with respect to environmentally sensitive state policies. For example State properties in the City of Hartford have installed new LED lights in parking lots. The bright white LED night lighting has actually added more night light pollution into the city of Hartford. Night Light pollution is actually a problem in our cities, and there is a State Law. Who will be assigned to check to make sure the State Department of Administrative Services manage properties with respect to environmentally sensitive state policies (such as minimizing night light pollution) and GC3 EJ recommendations.

00:50:43 Gannon Long: Time for Hartford to reclaim all that state parking lot land in the city.

00:51:06 Anthony Cherolis: Occupy Parking Lots Movement? :)

00:51:17 Jeff Howard: Sea level rise by 2050 is already largely "baked in" by prior emissions.

00:51:24 Karen Schnitzer: Agree with Mary.

00:52:06 Kipen Kolesinskas: longer periods of sustained high winds seems to be a trend for our region that does not seem to be talked about or represented in the models. Something we can get more info on?

00:52:15 Anji Seth: In the next 30myears the sea level is responding to CO2 that is already in the atmosphere. The emissions to day and in the next decades will affect sea level later in the century.

00:54:23 Gannon Long: Is it possible to maximize the document? It's hard to see as it doesn't fill the screen

00:54:43 Jeff Howard: Looks good on my end, Gannon.

00:54:44 Gannon Long: Or, not, I changed the view and it looks better.

00:54:50 Kathy Fay: Mary is correct. Facilities managers of all State properties, and sustainability officers of all State universities need to be educated and held responsible for

maintaining compliance with existing regulations. In New Haven calling out SCSU for discharging parking lot runoff directly into local waterways.

00:54:53 Gannon Long: yeah the side speaker view makes it very small.

00:54:56 Cheryl B Cappiali: Gannon

00:55:16 Cheryl B Cappiali: Yes, view options

00:55:20 Gannon Long: OMG - how about the state's idling law? DEEP is responsible for enforcing this. Not sure that is the best system.

00:55:37 Anthony Cherolis: DEEP has not enforcement capability. That law is a joke.

00:56:07 Amy Velasquez: Agree - they don't have the staff to enforce it.

00:56:10 Anthony Cherolis: We suggest that you don't idle your vehicle. Thanks.

00:57:12 Gannon Long: yeah the idling law is set up to fail. I suspect the light pollution policies are as well.

00:58:17 Jeff Howard: Jim, item 6's last sentence is incomplete.

00:58:35 Amy Velasquez: I think idling is better handled by new vehicles that shut off instead of idling. Didn't know there were light policies. Should this be handled by local P&Z

00:59:27 Denise Savageau: The challenge is that we will have high intensity storms and then periods of drought.

00:59:30 Paul Roselli: Is there a way to change the 5000K daylight LEDs to 3200K? Most animals, us included, are not designed to see daylight light at night.

01:00:06 Amy Velasquez: Regarding drought, sounds like it will depend on reservoir. Small reservoirs will be hit more severely

01:00:09 Patrice Gillespie: Wilton Go Green has developed a good model for a No Idling campaign with great graphics and an implementation plan. Sustainable Fairfield County is helping to raise awareness and increase munic participation. For more info: patricegillespie@mac.com

01:00:19 Anji Seth: Yes, Denise. Winter generally much more precipitation. Summer more extreme rain interspersed by longer dry periods.

01:01:42 Jeff Howard: I'd love to find a way to keep summer rainfall closer to where it falls - instead of running it off and into storm drains - I think we may need it

01:01:58 Gannon Long: Hi, I had expected us to go through the near term priroities Jeff sent out this morning - is that not the agenda today?

01:02:13 Jeff Howard: Jeff Howard did not post that last statement. Not clear how it was attributed to me.

01:02:13 Kipen Kolesinskas: also crosses into habitiat, ag and food supply, human health, etc

01:02:16 Karen Schnitzer: Okay, this information is really scary to me. Looking ahead, the rest of my life will beset with dangerous winds, high temperatures, decimation of wildlife populations, more and more intense storms, with no sign of improvement before I die. And this is all baked-in. And all these actions we want to take, when will they make a difference? IN 10 years? If we are lucky? We have to make Conservation and the lessening of our energy use a priority, and a behavior that is esteemed, not made fun of.

Conservation needs to be the "bridge fuel", to the future. Drops in energy use during this pandemic made a difference, how can we keep energy use, and new building, and air travel, and clearing of land from exploding next year?

01:03:19 Denise Savageau: Dr, Guiling Wang who prepared the report on temp and drought is interested n serving on the GC3 moving forward>
<https://hydroclimatology.uconn.edu/>

01:03:20 Gannon Long: Jeff - sometimes hwen people register for the meeting the person who invited them gets their name listed on the registration

01:03:30 Gannon Long: that has happened to me a couple times when I forwarded meeting invites to people

01:03:38 Gannon Long: but people should be able to change their names

01:03:42 Kathy Fay: Prohibition of idling by busses at university parking lots should be prohibited by the university and DEEP doesn't need to send a person - just use signs and empower parking attendants to call security if needed.

01:04:10 Gannon Long: DEEP enforcement should also reach out to Patrice for tips on what's working in Fairfield Cty!

01:04:20 Jeff Howard: Appears that when I shared meeting info with Mitigation WG, I may have sent my log-in rather than the generic registration link. So there are multiple "Jeff Howards" here.

01:05:18 Jeff Howard: I apparently am labelled as jeff howard - which is a high honor - but I am just Bernie Pelletier

01:05:23 Gannon Long: I for one would enjoy living in a world with more Jeff Howards.

01:05:24 Rebecca French: Can all the 'Jeff Howards' please write their real name in the chat so we can accurately note your attendance at the meeting?

01:05:59 Chris Michael: Chris Donnelly, not Chris Michael

01:06:27 Gannon Long: I dn't think participants have the ability to rename oursevlves

01:07:23 Karen Schnitzer: go to participants below, click on your name, click on "more" you can rename yourself.

01:08:17 Alanis Allen: I believe I just changed the setting so everyone can rename theirsself

01:08:21 Eric Hammerling, CFPA: We didn't have the ability earlier, Gannon, but I was just able to rename myself to Eric Hammerling from Connecticut Forest & Park Association, Inc.

01:08:36 Kathy Fay: Thank you Commissioner Dykes for valuing the nuances of the recommendations!!

01:08:51 Chris Donnelly: Thanks Alanis - yes, you did.

01:09:50 Amy Velasquez: How is the public seeing the list of items?

01:10:00 Gannon Long: Eric - awesome. Luckily my name showed up correct today :)

01:10:04 Mary Pelletier: State properties have continued to light empty parking lots and empty buildings at the UConn Law School and other properties that were largely empty throughout the summer. Light turned on before dusk. Although these new LED parking lot lights are energy efficient, increasing use and intensity of parking lot lighting is a net gain. One way for the State to reduce electricity use would be to hire an independent consultant (Leo Smith) review recently installed lighting decisions. Thanks to other for supporting this point!

01:10:58 Karen Schnitzer: Lighting of empty parks also goes on at the town level. Very bad for populations of frogs, insects, etc nearby.

01:11:14 Denise Savageau: Comments on WNL and role of ecosystem services in the GC3 process.

<https://1drv.ms/w/s!Avy3NgvDSlQ3xjM2Nw2bP3VGWke9?e=gIx9ck>

01:11:59 Jeff Howard: Not obvious to me that discussion of outdoor lighting is directly relevant to climate council.

01:12:06 Rebecca French: Again seeing a few more "Jeff Howards" entering the meeting. Please write your real name in the chat.

01:12:15 Curt Johnson: I just sent an email to the GC3 with link and image from an EXISTING MAPPING TOOL that overlays EJ COMMUNITY BOUNDARIES WITH KEY COASTAL POLLUTION AND SEA LEVEL/FLOODING HAZARDS. I totally agree with developing larger synthesis mapping tools- put lets identify those that already exist and put them to use! See <https://soundhealthexplorer.org/> Best, Curt Johnson

01:13:19 Gannon Long: Are these recommendations controversial? Many of them seem to be broadly supported by the group's work. We are anxious to get into implementation plans.

01:13:32 Gannon Long: *scratch "plans"

01:13:55 Curt Johnson: Agree with the sentiment about its time to implement.

01:15:51 Denise Savageau: Had to reload comments - so here is the link again> <https://documentcloud.adobe.com/link/track?uri=urn:aaid:scds:US:06a5e605-22ba-405c-bfaa-0dfa9ce30d1e>

01:17:07 Anthony Cherolis: I have an item to note in this mitigation list for the Transportation Section. Our transportation working group specifically recommended reducing Vehicle Miles Traveled (VMT) by 5% in 2030. For some reason this priority list instead says "reduce growth of vehicle miles traveled (VMT) by 2030." That's a very different statement. That reverts to the weak statement in the 2018 plan that assumes more driving year after year for the next ten years.

01:17:39 Anthony Cherolis: Can this be scrolled to? Item #19.

01:18:14 Chris Donnelly: yes, please scroll through the recommendations. Those of us on the public side have not seen this document,

01:20:19 Bernie Pelletier PACE: The other way for the GC3 to make progress - besides narrowing and focusing is to "tag" someone else to do it - there are a lot of players that move this along!!!

01:20:52 Bernie Pelletier PACE: I know a number of the members of the mitigation team are going to move the ball so long as DEEP says go!

01:21:50 Kathy Fay: Thank you again Commissioner Dykes!!!

01:22:03 Gannon Long: Is there another meeting planned for when we will discuss implementation work, and near term priorities?

01:22:03 Kipen Kolesinskas: executive summaries can provide this, but don't minimize the complexity or the # of things we should-and can be doing right now!

01:22:06 Bernie Pelletier PACE: Examples - Acadia and DEEP is moving the barriers discussion forward - and PACE is moving some of the data driven exercises

01:22:27 Gannon Long: Like, we could review this document again and track progress

01:22:29 Gannon Long: on what's happening

01:23:50 Gannon Long: Just want to note that there are many sections still to review in this document

01:24:02 Bernie Pelletier PACE: One of the things this report has done is to bring the towns and cities of ct to the party - think of them as reinforcements!

01:25:38 Kathy Fay: For each of the recommendations there are people who are focused on them, and every word was carefully chosen.

01:25:44 Alanis Allen: Good Morning everyone! Just a reminder: you can privately message me if you wish to be added to list for making a verbal public comment.

01:25:59 Alanis Allen: *privately message

01:26:17 Anthony Cherolis: To clarify. Aziz Dehkan is on the GC3 and had to leave for another call. I was going to make a note on a discrepancy in the Transportation Section on his behalf - as a delegate for Aziz. He gave me the okay to do so.

01:26:52 Henry Auer: Yesterday there was an excellent webinar focusing on CT LMI: "Closing the Energy and Transportation Affordability Gap for Connecticut's Low- and Moderate-Income Households."

Slides and a recording of this webinar are available on CESA's website at:
<https://www.cesa.org/event/closing-the-energy-and-transportation-affordability-gap-for-connecticuts-low-and-moderate-income-households/>

01:27:38 Gannon Long: Hmm. there are other GC3 members with delegates here.

01:27:49 Gannon Long: Thank you for sharing that Henry!

01:28:21 Gannon Long: Posted the link to the report earlier in the chat. For folks who want to check it out: <https://www.veic.org/clients-results/reports/mapping-household-energy-and-transportation-affordability-in-connecticut>

01:28:49 Henry Auer: An important takeaway is the joint effects focusing on housing and its heating energy, and transportation availability. The webinar may serve to collect this theme into a strategy in the final editing and summarizing.

01:29:14 Gannon Long: Is there an agenda for this meeting? I believe I misunderstood what it would entail.

01:29:20 Royal Graves: Would like to see more emphasis on reducing greenhouse gas and less on adaptation to the unknown future.

01:29:30 Mary Pelletier: With respect to increased drought and increased extreme precipitation events, there is a need to review existing dams and flood control infrastructure, such as the circa 1959 Work Plan for Park River watershed protection and flood prevention. Review of the current efficacy of the infrastructure constructed according to those now 60 year-old plan calculations could help to update infrastructure to increase safety, as well as the relationship with flood control with human communities and ecosystems. As Connecticut gathers more information regarding changing precipitation patterns, there will be a need to modify the operations and maintenance manuals that regulate how the stream corridors (and Trout Brook channel) must be managed by municipalities.

01:29:52 Denise Savageau: The CT Council on Soil and Water Conservation has a soil health committee, many who served on the GC3, and includes USDA NRCS, CAES, and other federal and state agencies and NGOs. We are willing to take on the task of looking at soils and soil health across all of CT, from ag to wetlands to urban communities.

01:30:43 Denise Savageau: The Council also includes DEEP and DoAg

- 01:31:24 Kipen Kolesinskas: No net loss of prime farmland should also be considered, and consideration of need for additional farmland in no net loss of forest land policy recommendation
- 01:37:31 Bernie Pelletier PACE: This work needs a project manager to lay out who does what when and how! A few gantt charts wouldn't hurt
- 01:37:34 Gannon Long: It would be great to name a few key people for each - for example, Clare Coleman from OPM who is working on mapping. Bernie who is leading buildings efforts (and naming DEEP staff working with them)
- 01:38:01 Denise Savageau: Klp is correct. Protecting prime farmland soils is important to having local food and food security.
- 01:38:06 Gannon Long: Even just listing key staff for implementing each would be helpful so folks know who to reach out to
- 01:41:10 Gannon Long: it does sound time consuming. Agreed.
- 01:41:34 Amy Velasquez: Is there a way to identify what work is already underway?
- 01:42:04 Denise Savageau: The WNL needs to meet as a whole to look at top recommendations. The group has not met collectively to discuss overlaps or priorities.
- 01:42:13 Gannon Long: at this point it's less about the groups prioritizing and more about the state agencies leading implementation strategies. The lowest hanging fruit is the stuff that's easiest for agencies to implement soonest.
- 01:42:37 Susan Masino: Agree about prioritizing farmland. The Science and Technology group strongly supports local farms and local systems for food and resources for multiple mitigation and adaptation benefits. Related to the critical priorities of health/mental health - there is a wonderful model of a working farm in Massachusetts that is also a treatment program for people with mental illness www.gouldfarm.org
- 01:42:42 Gannon Long: Amy - great question - that would be a great use of gatehrings like this, running down the list and updating where we are on each.
- 01:44:10 Patrick Brown: Thank you Commissioner Dykes, Rebecca, and teams. I need to drop for another meeting. Looking forward to the next steps in this process.
- 01:44:38 Gannon Long: Love that folks are wanting to get more public input. But what if there is something that the state could do quickly that doesn't make the group's top 10? I think it's time to slow down the revising of this list and start implementing the ideas.
- 01:44:42 Mary Pelletier: What can be done in the coming year? Assign independent teams to review enforcement of existing environmental policies, especially on State properties. Have leadership insist (with funding incentives and/or fines) that contracted property management companies comply with State policies. Additional emphasis changing/updating how facilities managers are actually managing the state land (on campuses and the grounds of State buildings). Perhaps a spreadsheet is needed that can establish accountability. Identification of individuals/professionals who accountable for implementation is what makes the LEED rating system effective. The GC3 can help ensure these recommendations are fulfilled by highlighting what agencies/leadership are accountable, and what independent organizations (non-profits) can help follow the implementation process.
- 01:46:10 Gannon Long: FWIW the transportation group and others have already expressed some of these priorities.

01:46:40 Marianne Engelman Lado: Thanks to Commissioner Dykes, Rebecca French, Edith Pestana, Lee Cruz and all of you. I was sorry to miss the discussion of EEJ recommendations but am excited to move forward. Thanks again, Marianne Engelman Lado (co-chair, EEJ Working Group)

01:46:43 Kimberly Stoner: I would suggest two lists - high to low priority, and easy to implement to difficult and long-term to implement.

01:47:25 Kipen Kolesinskas: it is needed to also support those groups that are currently implementing actions that are consistent and are getting push back from other forces

01:47:26 Gannon Long: The prioritization accounts for 2 approaches - 1 is what people want to prioritize, the other is for the agencies to determine what can be done most quickly.

01:47:33 Kimberly Stoner: The easiest to implement is to stop doing things we shouldn't be doing.

01:47:39 Gannon Long: good point

01:47:59 Jeff Howard: Consider the silver-buckshot-vs-silver-bullet analogy that is often cited in climate affairs.

01:48:09 Patricia Taylor: As a member of the public, I think the climate events we are all to experience in short order will soon provide the priority lists for our state. I understand you are required to stratify and structure what comes first and how to fund it. For residents, this planning and the public reports serve to notify me that the state government understands we are about to be overwhelmed by those events, and is gathering itself to do what it can, on behalf of its residents.

01:48:15 Anji Seth: The strength of this document is its comprehensive and critical set of recommendations, that if implemented would address the scale of the need.

01:48:48 Cheryl B Cappiali: Thank you Katie!

01:49:03 Wayne Cobleigh: This report lays the foundation for setting priorities for investment and climate action that a broader audience can build consensus on.

01:49:13 Bernie Pelletier PACE: The document is a product - yes - but as Katie D says - this is also engagement !!!!! we are rolling!

01:49:15 Kathy Fay: Again, Commissioner Dykes for continuing to defend the full picture!

01:49:25 Kathy Fay: thank you!!!

01:49:56 Karen Schnitzer: Thank you Commissioner Dykes and everyone working on this for your time and effort.

01:50:13 Cheryl B Cappiali: Thanks Rebecca and Katie! Stand strong!

01:50:22 Kathy Fay: This approach will maintain trust in the coming years!

01:50:39 Alex Rodriguez: We have a collective responsibility to uphold this document. Climate change is the biggest issue of our time and we see how environmental injustices and pollution impacts some communities for more than others.

01:51:16 Adrienne Houel: I really appreciate the discussion about prioritization without erasing the fine points of the recommendations. Thank you Commissioner Katie for your leadership in getting this vast work underway and leading through implementation. That is my greatest worry: implementation and timing for these recommendations!

01:51:23 Eric Hammerling, CFPA: Prioritization sounds really good conceptually, but there are so many criteria to consider with so many apple- and orange-level recommendations that accomplishing priorities fairly is MUCH harder than is being suggested. One example of this from the Forests report might be a top priority for equity and environmental justice -- planting and maintaining trees and open spaces in our cities -- may not rank as highly if you were determining priorities solely based on carbon storage/mitigation benefit (for example). I really like the way the various recommendations are being presented now, by the way.

01:52:02 Gannon Long: Agreed Eric. Very labor intensive and time consuming and has at some level been incorporated into the recommendations so far.

01:59:50 Gannon Long: Spreadsheets! Accountability! Yes Mary! :)

02:03:04 Patrice Gillespie: May I submit that the State's 2018-2023 Plan of Conservation & Development, most of which was written before major global reports about climate change were published, has been put forth for adoption to the legislature for the 4th consecutive year. <https://portal.ct.gov/-/media/OPM/IGP/ORG/cdplan/cdupdate/Continuing-Committee-Transmittal-Letter-20201202.pdf> Because the State POCD should provide clear planning leadership for the POCDs of our nine COGs and 169 municipalities, should we really be adopting a State Plan that is somewhat outdated or insufficient as regards GHG emissions, etc?

02:07:03 Kipen Kolesinskis: Well stated Denise!

02:08:49 Lee Cruz: Thank you Diane.

02:09:32 Edith Pestana: thank you Diane :)

02:12:00 Tamara Muruetagoiena: As members of the GC3 we've already done a great deal of prioritization and believe there is very important information in the recommendations.

02:12:12 Gannon Long: Absolutely @Tamara

02:14:00 Diane Lauricella: Thank you everyone. I ask that we create the governmental structure to assist the towns expedite moving forward. Use the COGs, regional approach, Soil Conservation Districts etc. so that each town DOES NOT have to hire their own experts.

02:14:13 Mary Pelletier: I agree with Kip, the emphasis on renewables has blocked a long list of other concerns that communities have the capacity to address, especially with respect to food and land use.

02:14:20 Rebecca French: deep.climatechange@ct.gov

02:14:26 Susan Masino: The interdisciplinary nature of this is really visionary. The research shows that we need to seize opportunities that range in their scope and impact - and even the most tiny. Cultural change is needed and there is no shortcut to that. That is how we stay on a positive path for everyone.

02:14:37 Cheryl B Cappiali: Thank you Denise!

02:14:50 Cheryl B Cappiali: Thank you Kip!

02:15:02 Huan Ngo: Thank you

02:15:25 Mary Pelletier: I also agree with Denise, and appreciate her emphasis on soil health. Thanks to everyone on GC3 and on the chat!

02:15:39 Kathy Fay: Energy Concierge approach to home energy really works and we would be glad to update others on the progress of that at any time.

02:15:52 Mary Pelletier: yay Rebecca!

02:16:09 Kathy Fay: Thank you Rebecca
02:16:10 Anji Seth: Thank you, Rebecca!
02:16:12 Diane Lauricella: Thankyou rebecca. Job well done!
02:16:22 Frogard Ryan: Thank you, Rebecca and Katie!
02:16:23 Cheryl B Cappiali: Thanks again Rebecca!
02:16:28 Rebecca French: Yay for the working groups!
02:16:30 Adrienne Houel: Thanks Rebecca and the whole team.
02:16:33 Kevin Grigg: Agreed.
02:16:34 Louanne Cooley: Thank you Rebecca!
02:16:34 Shanté Hanks: Great job Rebecca
02:16:55 Kipen Kolesinskas: thanks to DEEP staff and to all who participate and represent others!
02:17:05 Eric Hammerling, CFPA: Way to go, GC3 Team!
02:17:20 Cheryl B Cappiali: Happy Holidays!
02:17:28 Diane Lauricella: Have a safe wonderful holiday!
02:17:33 Kathy Fay: and thank you Denise, Diane, Lynne, Gannon, Commissior Dykes and all the Jeff Howards!
02:17:42 Lee Cruz: Congrats to all GC#. Happy Holidays

Draft Equity and Environmental Justice Recommendations
For inclusion in the January 2021 report to begin implementation in 2021 or early 2022

1. **Develop and identify funding for a community engagement strategy to inform the 2021 GC3 planning process and implementation**, including support in the form of grants for partnering community-based, non-governmental organizations to design the community engagement process, receive training, and co-develop recommendations to ensure meaningful input and equitable approaches to mitigation and adaptation. Both public and private funding should be pursued.
2. **Develop, launch, maintain, and use a statewide environmental mapping tool that provides a visual representation of the spatial distribution of environmental and climate health vulnerabilities across Connecticut**, taking into account the social determinants of health. Make recommendations for how the statewide environmental mapping tool could be codified. Launch a public-private interagency effort as part of the 2021 phase of the GC3 to develop the tool.
3. **Prioritize mitigation strategies in vulnerable communities**, including low and moderate-income communities, and ensure access to mitigation approaches, such as clean energy, for low and moderate-income communities.
4. **Establish Connecticut community resilience program.** (combined ILU LUB-3 and EEJ recommendations) The program would provide technical assistance to municipalities and Councils of Governments on resilience actions across the state, address both short-term and long-term impacts of climate change, bring together all relevant planning documents and facilitate dialogue amongst state, regional and local stakeholders, and prioritize vulnerable populations. Focus of this engagement would be on more resilient development, land use and building practices. Funding for this program should be apportioned using a system that ensures more resources for municipalities where vulnerable population reside and where plans have been developed specifically to address the needs of the identified vulnerable population.

Governor's Council on Climate Change
Projected Climate Impacts for Connecticut: Sea Level Rise, Temperature, and Precipitation

Technical reports that review the state of the science and projections for Connecticut have been prepared through the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) for sea-level rise (O'Donnell, 2018) and temperature and precipitation (Seth et al., 2019). The following impacts and recommendations are based on these reviews and a consensus within the GC3 Science and Technology Working Group.

1. There is high confidence in projected changes through the mid-century. Projected changes after the mid-century will depend on mitigation actions taken in Connecticut and globally. Since our understanding of the processes that determine climate is advancing rapidly, and data is being continuously collected, we recommend a comprehensive review of projections be undertaken by the State at five-year intervals as outlined below.
2. Mean sea level in Long Island Sound could be up to 20 inches above the National Tidal Datum Epoch (1983-2001) by 2050 (O'Donnell, 2018). This projection is not sensitive to future trends in carbon dioxide emissions.
3. Changes in mean sea level will significantly impact the frequency of flooding along the Connecticut coast, but the flood zone will not expand much in most areas. With 20 inches of sea-level rise, coastal flood risk could increase by a factor of 5 to 10 with no change in storm conditions. High water levels, like occurred during Superstorm Sandy, would then be expected every 5 to 10 years.
4. Sea level rise will continue after 2050. Recent simulations indicate that the mean sea level could be up to 80 inches higher by 2100 if CO₂ emissions are not reduced soon.
5. Average temperatures in Connecticut could increase by 5 oF (2.7 oC) by 2050 compared to the 1970-1999 baseline. Connecticut's temperature has already risen more than the global average in part because temperature changes tend to increase in middle and high latitudes (towards polar regions). Consequently, a 2 oC target for global average temperature would result in a higher temperature (than 2 oC) in Connecticut.
6. All indices of hot weather are expected to shift toward more frequent and higher temperature events. For example, by mid-century, the number of days per year with temperatures above 90 oF (32 oC) could increase. Statewide, from 1970 to 1999, the average number of days was 5, and this is projected to increase to an average of 25 days between 2040-
7. Temperature projections after mid-century are sensitive to policy choices on carbon dioxide emissions. Coordinated mitigation now means it is more likely that the temperature will stabilize after 2050. If not, warming is likely to accelerate.

8. Drought risk is also expected to increase. The probability of unusual events (extremely low annual and summer water availability, and extremely high 1-day and 5-day precipitation) are projected to increase by a factor of between 2 and 4 by mid-century.

9. Though it is unclear whether the frequency or intensity of extratropical storms in Connecticut will change, they will likely bring more precipitation. In general, warmer temperatures will result in less snow and more rain, but increased humidity will yield high snowfall events when temperatures permit.

10. Projection of changes in the frequency of tropical cyclones in a warmer climate are uncertain. However, they will likely have stronger winds and more precipitation. Since 1980 there has been an increase in the frequency of hurricanes in category three or greater. The impacts outlined above reflect the reality that climate change is here - in Connecticut - and that natural systems are complex and dynamic. Connecticut is fortunate to have engaged citizens, businesses, and policymakers. An analysis of multiple moral foundations by the Cornell National Social Survey (USA) found that fairness and compassion are positively associated with a willingness to take action on climate change.

**Recommendations of the Governor's Council on Climate Change
to begin to be implemented in 2021 and early 2022**

Equity & Environmental Justice

1. **Develop and identify funding for a community engagement strategy to inform the 2021 GC3 planning process and implementation**, including support in the form of grants for partnering community-based, non-governmental organizations to design the community engagement process, receive training, and co-develop recommendations to ensure meaningful input and equitable approaches to mitigation and adaptation. Both public and private funding should be pursued.
2. **Develop, launch, maintain, and use a statewide environmental mapping tool that provides a visual representation of the spatial distribution of environmental and climate health vulnerabilities across Connecticut**, taking into account the social determinants of health. Make recommendations for how the statewide environmental mapping tool could be codified. Launch a public-private interagency effort as part of the 2021 phase of the GC3 to develop the tool.
3. **Prioritize mitigation strategies in vulnerable communities**, including low and moderate-income communities, and ensure access to mitigation approaches, such as clean energy, for low and moderate-income communities.

Progress on Mitigation Strategies

Cross-Sector

4. **Expand consumer education and awareness efforts to increase the uptake of zero- and low- carbon technology measures.**
 - a. **Enhance outreach efforts to increase the uptake of zero- and low- carbon technology measures.** Use social media campaigns, webinars, case studies, testimonials, and customer-engagement platforms with a focus on environmental justice communities, to highlight on-line resources and engage stakeholders.
 - b. **Conduct outreach on climate action plan.** Public participation should be focused on selection of criteria important to the community and coordinated with the definition of an environmental justice (EJ) index. Consider the incorporation of co-benefits to EJ communities in regulatory and agency decisions. Coordinate a sustained outreach effort with key non-profit and neighborhood organizations to develop an effective communication plan to clearly link climate actions to the quality-of-life issues important to disadvantaged and EJ communities. Consider the creation of civic infrastructure to enable communities to better advocate for their interests.

5. **Strengthen alignment between state decision making and GHG emissions- reduction goals.**
 - a. **Encourage energy-focused partnerships** between regional councils of government and their member municipalities, NGOs and universities to enable and align quantitative measurement of progress in reduction of GHG emissions, using a state-wide standard tool. Consider publication of comparable town-by-town emissions reports on state website to engender accountability and friendly competition while speeding overall progress.

Buildings

6. **Accelerate adoption of building thermal energy conservation improvements** through protection of energy efficiency funds; addressing health, safety, and legal issues that are barriers to efficiency upgrades; proactively using building codes; improving the process of evaluating energy-efficiency cost-effectiveness; improving coordination of building performance programs; and engaging municipalities as allies in all efforts.
 - a. **Prioritize building envelope improvements and expand access to thermal energy - efficiency measures** through innovative financing options for all income levels and higher incentives for customers with low income and businesses located in environmental justice communities, as is ongoing through the Conservation and Load Management (C&LM) Plan and the Comprehensive Energy Strategy (CES).
 - b. **Protect ratepayer efficiency and clean energy funds, to be used for their statutorily-authorized purpose.** Energy efficiency funds collected on utility ratepayer bills and through the Regional Greenhouse Gas Initiative (RGGI) are to be utilized for building energy efficiency improvements. Similarly, ratepayer funds that support clean energy and efficiency programs of the Connecticut Green Bank should be used to achieve their intended purpose. These funds are instrumental for reducing air pollution and greenhouse gas emissions, and lowering electric bills and supporting clean energy jobs.
 - c. **Improve the ability of efficiency programs to overcome health, safety, and legal issues that are barriers to efficiency upgrades.** Continue focused engagement with partners in housing and public health through the Energy Efficiency Board to identify state- and municipal-level best practices regarding strategies to overcome issues that are barriers to energy-efficiency upgrades and adopt those that are appropriate for Connecticut. Fully utilize the Weatherization Assistance Program (WAP) funding as allowed for this purpose. Evaluate current programs for effectiveness and institute enhancements to address unmet needs in the low- and moderate-income community. Identify clear pathways for renters to follow in all programs. (cross-listed with ILU)
 - d. **Proactively use building codes to accelerate energy efficiency.** The State should continue to keep pace with adopting the International Energy Conservation Code (IECC) and consider strategies to further enhance opportunities to improve

energy efficiency through high-performance and stretch codes and construction and renovation practices.

- e. **Make energy-efficiency cost-effectiveness testing consistent with public policy goals** and align the cost-effectiveness test with the National Standard Practice Manual.
 - f. **Consider strategies to better coordinate building performance programs within the State to reduce GHG emissions from buildings.** Strategies could include opportunities to scale up deep energy retrofits of existing building stock and engaging on a pilot basis with the Department of Energy's Grid Interactive Pilot program, which uses smart-building controls to align operation and pricing with low-GHG energy.
 - g. **Engage municipalities as allies.** Consider the creation of energy development zones to promote energy-efficiency policies targeted toward low- and moderate-income neighborhoods. Partner with municipalities and community organizations to overcome barriers to program participation and improve program delivery. Address heat island effects by encouraging the use of nature-based solutions, cool roofs and pavement, and thermal breaks. Engage partners to incentivize uptake of new clean energy technology and efficiency measures. Encourage municipal government to adopt lead by example approach the state is taking under Executive Order 1 with their buildings.
7. **Expand consumer education and awareness efforts to increase uptake of zero- and low-carbon technology.**
- a. **Evaluate opportunities to increase visibility of Energize CT resources** with a focus on improving communications for low- and moderate-income communities.
 - b. **Review a full suite of outreach strategies with the goal of enhancing outreach efforts.** Such strategies include using social media campaigns, webinars, case studies, testimonials, and customer-engagement platforms.
 - c. **Increase training of real-estate industry professionals** on integrating U.S. DOE Home Energy Scores and information on energy efficiency, renewables, and resiliency into real-estate transactions processes.
 - d. **Help building owners pursue a holistic and strategic approach to improve building performance.** Better coordination of analysis of building performance, advice to owners regarding available technical and financial options, exploration of potential complementary actions, and guidance for owners through an iterative process to make energy improvements as time, resources, and the owner's needs allow could improve overall outcomes of programs to enhance building performance.
8. **Transition building fossil fuel thermal loads to efficient renewable thermal technologies.**

- a. **Develop sustainable funding mechanisms to incentivize replacement of fossil - fuel space and water heating with efficient renewable thermal technologies (RTT).** Rebate programs are available through the Energy Efficiency Fund paid for by fees on natural gas and electric utility bills and RGGI funds. Further enhancements include requiring delivered-fuels companies to contribute to the Energy Efficiency Fund. This requirement would reduce the cross-subsidization of delivered fossil fuels by electric ratepayers and make more money available for RTT deployment.
 - b. **Incentivize installation of renewable thermal technologies in new construction.** Incentives for RTTs for new residential, commercial, and industrial buildings are available through the Residential New Construction program and Energy Conscious Blueprint program. Program updates will be rolled out with the next code adoption to drive the new-construction marketplace toward zero-energy buildings with low operational EUI ratings. New program offerings will support integrated design and whole-building energy modeling at the feasibility phase and will offer incentives to customers who incorporate energy-reduction strategies through post occupancy.
 - c. **Develop a strategic plan for transitioning from fossil fuels to renewable thermal technology.** In the upcoming Comprehensive Energy Strategy (CES), the State should investigate opportunities to align planning for the gas distribution system with the Global Warming Solutions Act (GWSA).
9. **Improve training and technical capacity of workforce for renewable thermal technology installations and standards.** Such an expansion could include working with Home Energy Services (HES) contractors to identify current and expected job needs, creating a fast track for critical work skills, and allocating funds to help contractors train new workers. There may also be an opportunity to leverage the Office of Workforce Strategy.

Electricity

10. **Commit at least 50 megawatts of demand reduction per year to the ISO- New England forward capacity market** through reducing electricity consumption; transitioning to a focus on demand response; utilizing energy storage; and doing all of the above with a broader equity lens.
- a. **Reduce electricity consumption by 1-2 million megawatt hours** by replacing existing inefficient electric-resistance space- and water-heating equipment with high-efficiency renewable thermal technology
 - b. **Assess distribution of C&LM program funds with a broader equity lens**
 - c. **Plan for the transition of the electric efficiency programs in the C&LM Plan from reliance on lighting savings to a focus on demand response.** The C&LM programs have historically relied significantly on savings from efficient lighting. Market transformation is underway as a result of federal lighting standards and

efficiency program rebates. In addition to thermal envelope improvements to offset the load impacts of electric heat pumps, the C&LM programs must shift their focus to active demand response, to encourage customers to engage with a more modern grid and improve affordability and resilience."

- d. **Utilize energy storage as a peak demand reduction and load flexibility strategy.** Energy storage is becoming a key strategy to shift electricity demand and increase system resiliency. Numerous storage solutions are available, including batteries and pumped hydro, which can mitigate the intermittency challenges of zero-carbon resources like wind and solar power. DEEP and PURA are investigating the value associated with battery storage in a Value of Distributed Energy Resources study that is now under way.
11. **Achieve at least 66 percent zero-carbon electricity generation by 2030** through continued deployment of renewable energy sources and improved transmission and storage deployment, while creating green jobs to grow local economies.
 - a. **Meet the Renewable Portfolio Standard (RPS) target of 40 percent Class I renewable energy sources by 2030**, with an aim to reduce the carbon intensity of the RPS to achieve its decarbonization goals. Owners of renewable-electricity generation projects receive one renewable energy certificate (REC) for every megawatt-hour of electricity they produce. Those RECs are traded in a regional market for state RPS compliance. Connecticut establishes required annual REC percentages from three classes of renewable energy resources.
 - b. **Ensure a transparent and predictable compensation framework to maintain at least the historical annual average 40-90 megawatts of residential behind-the-meter renewable energy resources.** As retail electricity rates continue to rise, Connecticut must develop a transparent and consistent compensation structure for behind-the-meter renewable-energy generation to enable future renewable deployment. The compensation structure implemented should be consistent and easy to understand, and it should ensure a reasonable rate of return for customers and project developers, incentivizing deployment of distributed-generation sources to facilitate grid decarbonization.
 - c. **Continue implementing a shared clean energy program deploying at least 25 megawatts per year, with a focus on low- and moderate-income customers**
 - d. **Continue to deploy at least 50 megawatts per year of larger distributed solar and 10 megawatts per year of distributed fuel cells, with optimum utilization of available siting locations**
 - e. **Maintain in-state zero-carbon nuclear generation and develop a long-term strategy to achieve a 100% Zero Carbon electric supply for Connecticut by 2040.** Connecticut must retain zero-carbon nuclear power as it develops a transition plan to replace nuclear with zero-carbon renewables. A transition plan must consider the costs of nuclear retirement borne by ratepayers, the diverse mix of replacement energy sources, and economic, environmental, health, and social impacts of replacement. When planning the transition away from nuclear, economic and job impacts must be considered.

- f. **Establish clear targets for off-shore wind procurement**– in concert with IRP recommendations and in balance with other renewable energy sources – to foster its significant potential to help meet Connecticut’s zero-carbon goals. Consider strategies to improve the state’s off-shore wind programs, including protecting endangered species and engaging in wildlife habitat monitoring before, during, and after construction and developing a workforce development plan for “green jobs” in the areas where new electricity infrastructure will be built.
- g. **Optimize grid management strategies to reduce carbon emissions**
- h. **Identify transmission constraints and evaluate the need for new transmission infrastructure required to support a zero-carbon electric grid.** Examine whether transmission expansion is needed to support achieving a zero-carbon emissions electricity grid. Given that development of high-voltage transmission lines typically requires acquisition of land, a study should be conducted that examines the environmental impact of building new transmission as one component to determine its benefit.
- i. **Increase adoption of smart-management technologies to optimize flexibility of distributed energy resources.** Grid modernization is important to better accommodate zero-energy and low-carbon generation sources and increase system safety, reliability, security, and resiliency in a cost-effective manner. It enables two-way communications between consumers and grid operators and facilitates bi-directional flows of energy to reduce peak demand and integrate distributed energy resources. This becomes even more important as buildings and transportation electrify with efficient and “smart” technologies and more distributed-energy resources come online.
- j. **Research and identify opportunities to integrate battery storage and distributed renewable energy technologies to reduce and displace carbon emissions.** Connecticut has taken steps to encourage adoption of energy-storage solutions. The 2019-2021 C&LM Plan allows Eversource and United Illuminating to incentivize storage in demand-response programs. Additionally, PURA Docket 17-12-03 includes RFPs for storage-incentive programs.
- k. **Reduce petroleum use by power plants needed to serve winter peak demand.** The State should consider the health impacts (along with cost and carbon emissions) of using oil to meet electricity demand and evaluate expansion of a winter demand response program.

Non-energy

- 12. **Implement the short- lived climate pollutant reduction strategies outlined in the U.S. Climate Alliance Short Lived Climate Pollution Challenge to Action Roadmap.**
 - a. **Develop regulations to reduce methane emissions from natural gas distribution.**
 - b. **Monitor federal policy on potential regulations for hydrofluorocarbons** that set achievable timelines for a transition to climate-friendly, HFC-free technologies

and HFC substitutes in refrigerators, air-conditioning equipment, and vehicle air-conditioning systems.

- c. **Efforts should be explored to reduce methane emissions from agriculture**, including considering incorporating methane emissions reductions into funding criteria for agricultural programs and improving predictability of revenue streams for renewable natural gas.

13. Incorporate climate-change mitigation in Plans of Conservation and Development

(POCD). State-funded actions should be implemented consistent with State POCD policies, while also considering what GHG mitigation goals and actions should be integrated into the State POCD. The State should define commonly used terminology, such as “sustainable,” and develop standards for determining an action’s consistency with the state POCD and for addressing points of inconsistency to ensure a more uniform approach that facilitates reporting and data tracking across towns and state agencies.

14. Promote responsible and just materials management. Consider implementing the recommendations of the Connecticut Coalition for Sustainable Materials Management (CCSMM) to address both the climate impacts of waste generation and environmental justice concerns. A strategy to address these issues could include the following:

- a. Waste management goals should be set to minimize the residues sent for final disposal rather than based on diversion rates
- b. Financial incentives should be provided to encourage manufacturers to process recovered materials into new products in support of a more circular economy
- c. A disposal tax based on an estimate of the GHG emissions of the final disposal process to fund incentives for a more sustainable waste management system
- d. Develop a strategy designed to separate organics from municipal solid waste, increase quantity and quality of recyclables, and reduce residues sent for final disposal (waste-to-energy facility or landfill)
- e. Mandate or incentivize diversion of organic materials from the disposal stream
- f. Create markets to support organics diversion
- g. Develop and implement food rescue and recovery programs
- h. Accelerate development of infrastructure to utilize diverted organic material

Transportation

15. Maintain increasing fuel economy and low- and zero-emission standards. Improving fuel economy can contribute to GHG emissions reduction in the transportation sector. Vehicle emissions account for the bulk of Connecticut’s transportation emissions and disproportionately affect LMI communities due to the density of traffic in or near these areas. Implementing this recommendation should include the following actions:

- a. Maintain adherence to Corporate Average Fuel Economy and GHG emission standards mid-term review 2016 final determination

- b. Maintain adherence to California low-emissions and zero-emission vehicle requirements
- c. Establish emissions standards for medium- and heavy-duty vehicles, including school buses

16. Expand EV charging network to ensure consumer confidence and reduce range anxiety. Opportunities for this area include:

- a. revise zoning regulations and building codes to require: (a) a minimum number of ZEV parking spaces for new construction in both multi-unit dwellings and commercial properties; and (b) all new residential construction to be EV-ready.
- b. prohibit homeowner associations, condominium associations, and landlords from restricting homeowners, condominium owners, and lessees with assigned parking spaces from installing charging equipment and associated metering equipment when certain conditions are met.
- c. provide incentives to property owners of existing multi-unit dwellings and to homeowners associations to add charging stations.
- d. develop educational programs for business owners, commercial property owners, and residents; overnight charging opportunities for people without garages; and dedicated ZEV parking with EV charging at municipal offices.
- e. post Alternative Fuel Corridor signage on the Federal Highway Administration's designated corridors in Connecticut to let drivers know about available charging and to encourage installation of additional charging stations.

17. Develop a State fleet transportation Lead by Example program that sets annual emissions-reduction targets and enables increasing adoption of zero-emission vehicles. The state should actively seek opportunities to reduce the overall number of vehicles in the fleet; increase state employees' use of transit and active transportation; increase the number of ZEVs in the state government's light-duty vehicle fleet, incorporating criteria prioritizing replacement of fleet vehicles operating in LMI and EEJ communities; and continue meeting the accessibility needs of passengers and drivers with mobility impairment, until the ZEV market expands to include vehicle models that can provide the needed accommodations.

18. Update the Electric Vehicle Roadmap that established specific ZEV targets that align with the ZEV MOU and the 2030 target. Establishing a timeline of annual targets that can help assess whether the state is on track to meet its long-term commitment. Meeting the 2025 commitment in the ZEV MOU will require increasing the number of ZEVs by roughly 60% each year. Assuming that commitment is met, reaching the 2030 target will require adding an average of another 75,000 new ZEVs annually beginning in 2026.

19. Advance initiatives that reduce growth of vehicle miles traveled (VMT) by 2030. Reducing growth of VMT, especially passenger vehicle VMT further reduces carbon emissions. Opportunities to advance this recommendation include:

- a. Implement Transit-Oriented Development projects and support walkable, mixed-use, and sustainable urban and suburban development in areas served by transit
- b. Encourage, incentivize, and support alternative modes and active transportation that reduce single-occupant vehicle driving
- c. Remove the legislative barrier to exploration of a mileage-based user fee
- d. Transit benefit, parking cash-out, and telecommuting for state employees
- e. Implement state and regional policies designed to reduce growth of VMT in the areas of development patterns and ensuring the long-term stability of the public transit systems, especially in light of severe impacts from the COVID-19 pandemic

20. Develop sustainable funding for transportation electrification and transit infrastructure.

- a. **Implement the multi-state cap-and-invest Transportation and Climate Initiative** that will set a limit on transportation sector emissions and reinvest program proceeds in measures that reduce emissions; provide benefits to citizens, especially low- and moderate-income communities; protect existing transportation funding; generate sufficient additional funding to support transportation infrastructure and operation; and mitigate costs to consumers.
- b. **Continue and expand surveys and public engagement on the Transportation and Climate Initiative throughout 2021**, including intentional outreach to rural communities and low-income communities

21. Advance initiatives that increase adoption of zero-emission medium- and heavy-duty vehicle.

- a. **Continue to implement the joint memorandum of understanding (MOU) Connecticut signed in July 2020 with 14 other states and the District of Columbia, committing to work collaboratively to accelerate the market for zero-emission medium- and heavy-duty vehicles**, including large pickup trucks and vans, delivery trucks, box trucks, school and transit buses, and long-haul delivery trucks (big-rigs). The goal is to ensure that 100 percent of sales of new medium- and heavy-duty vehicle are ZEVs by 2050, with an interim target of 30 percent ZEV sales by 2030.
- b. **Establish statewide goals for zero-emission medium- and heavy-duty trucks and school transportation.** Meeting this goal by prioritizing large urban districts will enhance the equity benefits of this recommendation. To achieve an ambitious goal for zero-emission school transportation, school district fleet managers and/or operations and finance directors should be mandated to review their contracts with service providers and establish a plan for transitioning to electric school buses, working with the utilities, and taking advantage of grants where possible.

22. **Reduce emissions from freight transportation.** Consider including the following recommendations in the Connecticut Statewide Freight Plan in its next update in 2021/2022.
- a. Address GHG emissions in state-level freight planning
 - b. Seek opportunities to shift freight from trucks to rail and ports
 - c. Consider co-benefit of expansion of waste reduction and recycling programs that will also reduce waste-stream freight.

Working and Natural Lands Recommendations

23. **Evaluate usable models to reliably monitor and report on carbon sinks related to working and natural lands,** including models developed by federal, state, academic, and nonprofit partners as well as any efforts of the U.S. Climate Alliance as part of considering a negative emissions strategy alongside reported emissions for the building, energy, and transportation sectors (Mitigation) (cross-list S&T, MS)
24. **Evaluate approaches and best practices for Siting of Renewable and Non-Renewable Energy Infrastructure to Avoid Loss of Forests, Farmland and Other Sensitive Lands.** (cross-list MS) As Connecticut deploys large-scale solar projects, it is important that this development does not supersede other climate change mitigation strategies, including the carbon sequestration potential of natural and working lands. The state should encourage developers to site their projects on brownfields, rooftops, parking lots, and other developed spaces

Forests Sub-Group

25. **Explore option of Statewide “No-Net-Loss of Forest” Policy.** Engage with stakeholders regarding the “no-net-loss of forest” policy to evaluate its feasibility, needed resources and associated programs to maximize mitigation potential. Consideration should be given to the following actions as part of the evaluation of this policy: avoid forest conversion; protect healthy, intact forests; offset all planned or permitted forest losses; provide incentives for stewardship, forest retention, and forest resiliency; and protect urban forests, build more parks, and plant more trees.
26. **Increase Adaptation and Resilience of Connecticut’s Forests**
- a. Support keeping forests as forests and evaluate mechanisms to achieve this goal, such as encouraging private landowners to protect forestland through easements, ecosystem payment mechanisms, and strong markets for local forest products.
 - b. Support statewide, regional, and local actions that align to maintain un-fragmented forests within and across political boundaries with emphasis on connections to waterways and wetlands, core forests, and wildlife habitat linkages, including continuing work under the Coalition of New England Governors and Eastern Canadian Premiers on resolution 40-3, Resolution on Ecological Connectivity, Adaptation to Climate Change, and Biodiversity Conservation. (Adaptation)

27. Increase Mitigation of greenhouse gases from Connecticut's Forests: Keep Forests as Forests

- a. Evaluate feasibility of a goal of permanent protection of at least 50% of core forests greater than 250 acres by 2040 and identify resources that would be needed to achieve that goal (Mitigation)
- b. Consider actions to increase statewide forest cover from 59% to over 60% by 2040 (Mitigation)
- c. Pursue opportunities to refresh guidelines for vegetation management utilized by electric utilities and DOT and public works within available resources.
- d. Evaluate how to improve forestry practices in Connecticut's working forests by following scientific principles, including the emerging body of knowledge on how to manage forests for resilience and to store and sequester carbon. (Mitigation)

28. Protecting Vulnerable Communities from Change Change

- a. Support urban forestry and community interest in tree planting, parks, and/or community gardens in densely populated areas to support climate solutions that could meet multiple needs such as protecting against extreme heat events and increasing health outcomes, employment, and entrepreneurial opportunities and the Social Determinants of Health. Consider the creation of a Youth Conservation Corps to help community-based groups with implementation. (Adaptation and Mitigation)

29. Protecting forests with a changing climate

- a. Consider reevaluation of Connecticut's Green Plan and open space grant programs to prioritize acquisition of land and conservation easements for habitats with the most climate resilience benefits. (Adaptation)
- b. Support federal funding programs that support habitat stewardship and protection such as the Recovering America's Wildlife Act, and others (Adaptation)
- c. Evaluate research opportunities for adaptive management for ecosystems vulnerable to climate change (Adaptation)

30. Funding, Programs, and Resources Needed for Implementation

- a. Incorporate more specific climate-related criteria into selection of projects/level of funding. These include the Open Space and Watershed Land Acquisition Grant Program (OSWA), the Recreation and Natural Heritage Trust Program (RNHT), and the Recreational Trails Program (RTP).
- b. Preserve funding for Community Investment Act (CIA)
- c. Evaluate strengthening the Urban Green and Community Garden Program to include Urban Forest Improvement Projects. (Adaptation and Mitigation)
- d. Evaluate approaches for Siting of Renewable Energy Infrastructure to Avoid Loss of Forests, Farmland and Other Sensitive Lands. (Mitigation)

Wetlands Sub-Group

31. Protect and enhance the ecosystem services value of wetlands using sound science and adaptive management strategies

- a. Encourage land and ocean management behaviors that support ecosystem services by incorporating new and emerging science and technologies, such as sediment additions to marshes, low impact development, green infrastructure, living shorelines, conservation and other nature-based adaptations. (Adaptation)
- b. Identify and conserve ecosystem services vulnerable to climate change. Identifying and preserving future inland advancement zones would help create future protective storm buffers for coastal communities while providing the co-benefit of preserving an ecologically important habitat and protect Long Island Sound from pollutants. (Adaptation)
- c. Continue monitoring and assessment of impacts of climate change on wetlands and near coastal waters and update management tools and strategies.(Adaptation)
- d. Work with partners to develop a habitat suitability model for restoring inland and coastal wetlands, identifying areas which provide the greatest increase in ecosystem benefits when protected or restored. (Adaptation)

32. Communicate the value of wetlands to Connecticut home and business owners through engagement on climate resilience efforts

- a. Include nature-based solutions as part of the state Natural Hazard Mitigation Plan (NHMP) and encourage municipalities and Councils of Governments to include this approach in local NHMPs. (Adaptation)
- b. Engage with partners to educate and assist private landowners and developers in the management of their lands to minimize impacts to wetlands and reduce risk from climate change. (Adaptation)
- c. Prioritize nature-based adaptation strategies that will ameliorate the effects of water inundation, including natural habitat conservation, Low Impact Development (LID) Best Management Practices (BMPs), agriculture water BMPs and drinking water treatment standards. (Adaptation) (cross-listed S&T)

33. Further develop policies that encourage protections for wetlands under a changing climate

- a. Evaluate how to integrate the newest rainfall data modeling into stormwater models and management tools and ensure coastal floodplain planning is informed by the state's sea level rise scenarios. (Adaptation and Mitigation)
- b. Prioritize acquisition of land and conservation easements for ecosystem services most at risk from climate change, leveraging Connecticut's Green Plan and open space grant programs. (Adaptation and Mitigation)

Rivers Sub-Group**34. Protect the future ecosystem services value of inland waters**

- a. Develop the scope for a science-driven process for identifying and prioritizing river networks that will likely maintain diversity and functional integrity, even under shifts

- due to climate change and protect the ecosystem services of inland waters. (Adaptation)
- b. Formalize continuation of land acquisition that will protect high-quality waters. (Adaptation)
 - c. Promote urban forestry and expansion of urban green spaces, including protection and/or re-establishment of riparian corridors, including daylighting rivers in urban areas, and creation and expansion of public open spaces that incorporate nature-based solutions, low impact development, and green infrastructure. (Adaptation)
 - d. Expand water quality focus of watershed-based planning to also consider related flooding and climate resilience issues and solutions. (Adaptation)
- 35. Re-establish free-flowing character and connectivity of inland waters and hydrological connectivity**
- a. Explore programs that will eliminate physical barriers to stream connectivity. As part of a program the following should be considered: identifying resources to remove barriers; assessing impacts of road crossing designs; engaging partners to develop educational content on dam removal; and identifying, assessing and prioritizing known barriers in the state, the removal of which would lower flood risk and allow for stream and habitat connectivity and promote resilient ecosystems. (Adaptation)
 - b. Encourage nature-based adaptive restoration approaches for rivers, floodplains, and estuaries and encourage the utilization of nature-based adaptation approaches over hard armoring techniques. Engage partners for education, outreach and technical training in these areas and establish priority projects for implementation through the development of project pipelines. (Adaptation)
 - c. Incorporate high-priority culverts into hazard mitigation planning and leverage federal funding sources for project implementation. (Adaptation)
- 36. Create safe, equitable opportunities for people of diverse backgrounds to access and enjoy water resources**
- a. Strengthen Open Space and Watershed Land Acquisition grants, Recreation and Natural Heritage Trust Program, Section 319 nonpoint source grants access opportunities for vulnerable communities. (Adaptation)
 - b. Enhance programs that will help outdoor recreation, natural resource partners, and municipalities engage with diverse communities. Engage external stakeholders to evaluate program impact for underserved and vulnerable communities. (Adaptation)
 - c. Enhance accessibility of information and signage for all communities. Better utilize technology for improved communication beyond English language signage. (Adaptation)
 - d. Enhance level of comfort with freshwater resource activities (e.g., paddling and fishing instruction, etc.,) especially for underserved populations. (Adaptation)
 - e. Explore partnerships to identify opportunities for outdoor swimming lessons.
 - f. Enhance state agency staff training in promoting equity, inclusion, and diversity, including for access, recreation, and safety issues around inland waters. (Adaptation)

- g. Increase recruitment of more diverse staff for positions within environmental conservation and environmental quality sectors and explore additional resources for environmental justice and public outreach in the area of environmental education to support both internal and external needs for guidance, information and programming. (Adaptation)

37. Promote demand-side water conservation and water reuse

- a. Review opportunities to reduce transmission losses by expanding leak detection and maintenance programs. (Adaptation)
- b. Work with partners to develop educational programming and outreach to educate the public as to where their drinking water comes from, the connection between a healthy environment and clean drinking water. (Adaptation)

38. Explore water rights options that protect fish and wildlife

- a. Support fish, wildlife and ecological needs when balancing economic and social needs in decision-making processes. (Adaptation)
- b. Share analysis that fishing and boating are Connecticut's top contributor to the outdoor recreation economy.
- c. Focus state land conservation plans and funding on conservation lands around cold water streams and resilient river systems. (Adaptation)

39. Further develop policies, education/outreach, research, and funding opportunities that encourage protections for inland waters

- a. Engage partners to develop training on green infrastructure and nature-based solutions for public works and other municipal staff. (Adaptation)
- b. Enhance education, outreach and research through goal-setting, incentivizing participation, and providing training and data management for monitoring and research projects that can detect climate change impacts on inland waters. (Adaptation)
- c. Provide opportunities for coordination and data sharing among individuals participating in citizen monitoring. (Adaptation)
- d. Develop educational campaigns for climate change adaptation awareness targeted at multiple sectors. (Adaptation)
- e. Explore opportunities to improve and expand citizen participation in monitoring, including schools, non-profits, & others. (Adaptation)
- f. Support opportunities to best utilize federal funding for wastewater infrastructure and wastewater solutions. (Adaptation)
- g. Support continued funding for the Clean Water Fund. (Adaptation)
- h. Maintain high standards for Combined Sewer Overflow (CSO) reduction in CSO communities. (Adaptation)

Agriculture and Soils Subgroup

- 40. Reduce conversion of Prime and Important Farmland Soils, active agricultural land, forest land, and other soil landscapes that provide critical ecosystem functions and**

values/ goods and services such as groundwater recharge/discharge, protection of headwaters of cold water streams, public water supply watersheds, floodplains and riparian areas, wetlands and wetland hydrology, support special habitats and migration corridors for species. From 2001-2016, 23,000 acres of farmland were developed or compromised, the 6th highest % in the nation. Baselines of kinds of farm acreage goals should be established, and goals for reduced conversion, and protection established. (Mitigation)

- a. Work towards accelerating and streamlining Farmland and Open Space and Watershed Land Acquisition Grant programs with a goal of closing in two years or less and doubling the number of easements closed within four years. Evaluate needs to achieve these goals.
- b. Maintain funding for the farmland preservation program through both the Community Investment Act (CIA) dollars and lump sum bonding and prioritize utilizing the federal "buy-protect-sell" and state "buy-protect-farm" programs and Community Farms Program to expedite farmland preservation process, create farmland access opportunities for the next generation of farmers, and protect smaller farms in more urban and suburban communities.
- c. Disincentivize location of solar projects on farmland. Incentivize multiple-use projects that allow for solar and agricultural production to co-exist on the same footprint when there are no other prudent and feasible alternatives, and as needed, as part of the farm business and/or succession plan. Maintaining soil health needs to be a critical component of the planning and installation of solar arrays.

41. Increase the adoption of on-farm energy production and reduce on farm energy usage

- a. Enhance energy efficiency programs available to farms. Explore renewable energy production opportunities. (Mitigation)
- b. Investigate successful models of funding and technical assistance to allow new and innovate farm energy technology. (Mitigation)
- c. Identify barriers, risk, and unexpected costs for farms seeking to implement on-farm energy projects. (Mitigation)
- d. Continue support for energize CT programs where farms can receive assistance in retrofitting their inefficient equipment with high energy measures. (Mitigation)
- e. Establish a process in which the State may direct the electric distribution companies to enter into long-term agreements to purchase power or renewable natural gas from anaerobic digestion facilities, including policies and incentives to enable on-farm anaerobic digesters.

42. Strengthen Land Use Planning Tools for Agriculture

- a. Take a more regional planning approach to supporting and planning for Connecticut agriculture. In Connecticut, land use planning is conducted at the local municipal level. 169 sets of land use regulations have a direct impact on the growth and sustainability of Connecticut farms. Consider adoption of Regional Agricultural Councils such as the Lower CT River Valley Regional Agriculture Council that can take a more regional approach to supporting and planning for Connecticut agriculture.

- b. Reflecting the current industry trends, municipalities should consider eliminating minimum acreages for farms in municipal zoning regulations.
- c. Municipalities should streamline their planning and zoning rules and regulations and techniques to prevent farmland loss, protect special soil landscapes and improve soil health and water management utilizing available technical assistance, including the 2020 Planning for Agriculture and Conservation Options for Connecticut Farmland guides.

43. Improve Soil Health Practices on and off Farms

- a. Work with partner universities in the state to provide technical assistance on tillage practices/equipment, soil health practices, grazing/forage management Increase training, technical assistance, and outreach on the programs, tools, techniques, and applied research needed to implement mitigation and adaptation practices. Virtual training should be an important component.
- b. Conduct outreach and education on the importance of soil health practices, and the value of agriculture's contributions to mitigation, adaptation, and resiliency.
- c. Raise awareness of the critical need for a strong soil science curriculum for agriculture and environmental science, particularly in the area of carbon sequestration and storage in soils.
- d. Leverage federal funding through the USDA Natural Resource Conservation Service Regional Conservation Partnership Program (NRCS RCPP) and Conservation Innovation Grants (CIG) to accelerate protection and management of parcels in public water supply areas, important habitats, flood prone areas, recharge and discharge areas.

44. Build a Sustainable and Equitable Food System

- a. Support planning for urban agriculture initiatives including urban agriculture master plans at the local level.
- b. Evaluate strengthening the Urban Greens and Community Gardens program to expand opportunities for urban agriculture projects.

45. Prepare farms for climate change

- a. Increased knowledge of federal and state programs including risk management and crop insurance tools
- b. Incorporate gender and racially diverse shared learning to better understand climate change impacts and develop solutions.

46. Sustaining Environmental and Soil Health

- a. Work with partners to improve research to develop prediction models for water use efficiency.

47. Address coastal acidification with a focus on impacts to the shell-fishing industry.

- a. Develop a monitoring system for water quality parameters critical to the shell-fishing industry in real-time to forecast potentially high-risk events. (cross-listed: PHS)

- b. Join the International Association to Combat Ocean Acidification (OA Alliance) and commit to furthering the five goals identified in the Alliance's Call to Action: 1) Advance Scientific Understanding; 2) Reduce Causes of OA; 3) Build Adaptation and Resiliency; 4) Expand Public Awareness; and 5) Build Sustained International Support. (cross-listed: S&T)
- c. Evaluate approaches to research, monitor, and address coastal acidification impacts to natural resources including shellfish, crustaceans, and fish. (cross-listed: S&T)

Infrastructure and Land Use (ILU)

- 48. **Develop a governance structure to facilitate oversight, implementation of strategies and actions pertaining to climate adaptation and resiliency.** Governance structure may include interagency, COGs, municipal, and other stakeholder participation.
- 49. **Advance priority planning tasks related to resilient infrastructure in Connecticut.** Planning tasks to begin in 2021 include:
 - a. Standardized and regulated local evacuation route planning and vulnerability assessment throughout the state.
 - b. phased and/or prioritized vulnerability assessments of publicly funded transit (bus and rail) facilities, as funding and resources become available (ILU T-3)
 - c. identification of geographically isolated communities due to limited ingress/egress resulting from coastal and inland flooding events using 2050 SLR, storm surge and inland flooding predictions (ILU T-4)
 - d. best available science for updating standards and guidelines used in transportation and other engineering design; including sources of sufficient confidence, specificity, acceptance and scale for CT/northeast region (ILU T-5)
 - e. proposals to address needs related to ownership, operation and maintenance of resilience structures
- 50. **Establish Connecticut community resilience program.** (cross-listed with EEJ) The program would provide technical assistance to municipalities and Councils of Governments on resilience actions across the state, address both short-term and long-term impacts of climate change, bring together all relevant planning documents and facilitate dialogue amongst state, regional and local stakeholders, and prioritize vulnerable populations. Focus of this engagement would be on more resilient development, land use and building practices. Funding for this program should be apportioned using a system that ensures more resources for municipalities where vulnerable population reside and where plans have been developed specifically to address the needs of the identified vulnerable population.

Public Health & Safety (PHS)**51. Develop a coordination framework for public health and safety priorities with a focus on the intersection of health equity and climate impacts.** The framework should

address the following:

- a. developing guidance for schools, day cares, and youth sports teams for prevention of heat-related illness and death. (PHS-1)
- b. addressing heat exposure and prevent heat-related illnesses at outdoor worksites and at indoor facilities where potential heat-related hazards may exist (PHS-2)
- c. establishing evidence-based standards for local heat and air quality response plans (PHS-3)
- d. protecting low-income residents and renters, particularly those in government supported housing, from indoor heat exposure (PHS-4)
- e. evaluating ozone alert education efforts (PHS-5)
- f. increasing airborne allergen monitoring (PHS-6)
- g. estimating the impacts of climate change on 2030 and 2050 ozone levels in Connecticut and identifying potential effects on the health of Connecticut residents (PHS-7)
- h. developing state and regional food security action plans to mitigate the risk of climate change and extreme weather events on the food system (PHS-31)
- i. establishing best practices for disaster case managers for addressing needs of mental health populations in disaster response (PHS-32)

52. Prepare Connecticut for vector-borne diseases. Vector-borne diseases are expected to increase with a changing climate and state coordination is needed to ensure these issues are addressed (PHS-8). Preparing Connecticut for this impact should include the following:

- a. strengthening monitoring and surveillance (PHS-9) of vector populations and associated vector-borne diseases
- b. assessing and projecting the Impacts of climate change on ticks, mosquitoes, and vertebrate hosts using mathematical models (PHS-10)
- c. developing vector-borne disease prevention and management guidelines for schools, outdoor recreation, and homes (PHS-11)
- d. evaluating vector control strategies and ensure support for implementing sustainable vector management programs (PHS-12)
- e. monitoring insecticide and antimicrobial resistance in vector populations and vector-borne pathogens (PHS-13)

53. Prepare public and private drinking water systems for climate impacts.

Implementation and planning activities should include, but not be limited to:

- a. developing water conservation measures & communication guidelines to manage droughts
- b. developing a GIS database and framework for continued updates to capture critical facilities to identify which public water systems (PWS) they are served by and which critical facilities are served by their own PWS
- c. updating planning guidelines, drought triggers and drought response protocols at least once per decade
- d. developing emergency interconnections between PWSs to ensure that multiple sources and interconnections are available for mutually beneficial sharing of water during emergencies
- e. using source water protection and the Drinking Water Quality Management Plans to encourage resiliency and increase funding and support for investments in watershed protection (PHS-22)
- f. developing a statewide GIS database and framework for continued updates that identifies the location of private wells and decentralized sewage disposal systems (PHS-24)
- g. tracking harmful or potentially harmful cyanobacteria algal bloom data in Connecticut and provide technical assistance to community water suppliers to address and prevent these events (PHS-26)
- h. Assessing the vulnerability of public recreational freshwater and marine beaches to impacts from climate change and prioritize adaptation options to reduce vulnerability. (PHS-27)
- i. Developing an energy audit program for water systems (Water and Wastewater) to increase energy efficiency and reduce greenhouse gas emissions across the water industry (PHS-28)
- j. identifying and improve wells that are located within a flood zone to increase resilience and reduce risk of flooding (PHS-29)
- k. incorporating resiliency into the consideration of new laws, regulations, and policies and promote greater education of PWS about the importance of resiliency, (PHS-30) specifically:
 - i. regulate the construction of public water supply wells in flood zones
 - ii. develop guidance for local land use commissions on revising regulations to make well construction in flood zones more stringent
 - iii. incorporate a resiliency metric into the sanitary surveys through the small system CAT (“scorecard”) and monitor results over time
 - iv. update the water supply planning regulations to require assessment of the potential impacts of climate change (changing rainfall patterns, flooding, sea level rise, drought management) on the water system as part of Water Supply Plan updates.

54. **Plan for the emergencies related to the impacts of climate change and ensure the incorporation of vulnerable populations into those planning processes.** While Connecticut has an ongoing natural hazard preparedness planning process, these recommendations specifically target how to better coordinate and incorporate the needs of vulnerable populations. Planning activities should include the following:
- a. creating and maintaining a statewide inventory of redundant back-up power services at critical facilities statewide and buildings where institutionalized vulnerable populations reside and establish a long-term funding mechanism for new systems and repairs. (PHS-14)
 - b. enhancing support for communication and outreach programs to educate residents about all aspects of preparedness, response and recovery for extreme weather events; include emphasis on communication strategies for vulnerable and Spanish-speaking populations (PHS-16)
 - c. coordinating state and regional access and functional needs (AFN) emergency preparedness and response to ensure safe and equitable access to communication and evacuation services and of medical care during natural disasters (PHS-16)
 - d. completing the draft State Evacuation Response Framework (PHS-17)
 - e. developing emergency interconnections between PWSs to ensure that multiple sources and interconnections are available for mutually beneficial sharing of water during emergencies (PHS-21)
 - f. establishing best practices for disaster case managers for addressing needs of mental health populations in disaster response (PHS-32)

Financing & Funding Adaptation & Resilience (FFAR)

55. **Build the governance structure and inter-agency coordination necessary to allow for effective and efficient financing and funding.** Funding alone does not result in implementable projects. We need a government that leads and facilitates the development of projects at the state, regional and municipal scale and prioritizes the protection of vulnerable communities.
- a. **Implement a no less than 40% equity funding commitment.** Develop a methodology for measuring and tracking expenditures and/or benefits for equity, in line with a commitment to ensure 40% equity commitment for project spend and/or benefits on adaptation and resilience projects and programs in vulnerable communities. The State should seek public-private partnerships to develop participatory design processes for advancing project development in vulnerable communities. With this commitment Connecticut would be the first state to commit to the goal of investing in climate adaptation and resilience in those communities that will feel the effects of climate change first and worst.

- b. **Develop a resilience project pipeline for state and federal funding opportunities.** Be prepared to take advantage of state and federal funding opportunities by inventorying existing resilience infrastructure, and develop a project pipeline of “shovel ready” resilience and adaptation projects that are engineered and prepared for permit application and emergency funding. This mix of projects should meet the equity project balance commitment, include a mixture of nature-based and gray infrastructure project solutions, and should plan for projects for near, mid and long-term project implementation.
 - c. **Develop a plan to incorporate resilience into existing state investment programs,** including development of a climate resilience and disaster preparedness standards and climate risk rating. Evaluate opportunities to incorporate resilience into housing rehabilitation and resilience programs; tax credit programs (New Market Tax Credit, Opportunity Zones, P.A. 490, 4% Low-Income Housing Tax Credit); state assistance for economic development; and building codes and standards.
 - d. **Enhance municipal authority to undertake resilience projects.** (cross-listed: ILU)
A municipal resilience authority would include the ability to pay for projects using borrowed or granted funds; to assess fees; and to construct, operate, and maintain resilience projects, including green infrastructure and nature-based solutions. At the municipal level resilience authority could be granted through updating the Flood and Erosion Control Board statutes. Options for enhancing the state’s ability to act as a backstop to municipal resilience authority and improve upon the existing inventory of state-owned and operated resilience infrastructure should be further explored.
56. **Identify and Generate Revenue Sources to Pay for Resilience Projects and Programs.**
Adaptation and resilience projects and programs savings come in the form of avoided losses making it fundamentally more difficult to fund the financing of loans or bonds for these projects with financial losses avoided or savings from lower costs of insurance. In order to finance projects, it is necessary to establish other revenue sources for the funds that will save the state and municipalities dollars in avoided loss, while maintaining or improving bond ratings.
- a. **Utilize available state general obligation bonds, including the expanded microgrid and resilience grant program, to fund adaptation and resilience programs and projects.** These funds should be available to fund any feasibility analysis or design and engineering required to jump-start a “project pipeline” mix of “green” and “gray” resilience projects and to leverage federal project construction matching grants to complete priority projects. Project selection

shall be consistent with the equity funding commitment and criteria. Any funding program should account for resources needed to ensure compliance with state or federal program requirements; attract a wide talent pool and best projects by authorizing municipalities, non-profits and academic institutions to apply; and enable grant recipients to receive technical assistance.

- b. **Create guidance to use Tax Increment Financing (TIF) Districts for resilience.** Existing TIF authority allows municipalities to assess fees based on property assessments. The revenue generated from TIF districts may be used to fund resilience projects either through direct cash to pay back borrowed funds.
 - c. **Support state authorization allowing all municipalities to create stormwater authorities.** (cross-listed: ILU & WNL) Expanding the current pilot to allow all municipalities to create municipal stormwater authorities would reduce stormwater pollution and flooding, and help municipalities afford green infrastructure and resiliency investments. This funding could leverage additional state and federal funding sources.
 - d. **Support state authorization allowing municipalities to adopt a real estate conveyance fee to fund resilience projects.** The authorizing legislation would allow, not require, municipalities to adopt a small and limited fee (up to 1% of the value of any real estate transaction valued at \$150,000 or greater) on the transfer of real estate. This dedicated fee could be used by municipalities to fund municipal resilience projects.
 - e. **Evaluate the creation of a state-level climate change and coastal resiliency reserve fund that would be managed by the Treasurer of the State of Connecticut.** The coastal resiliency reserve fund would allow the Office of the Treasury to manage municipal coastal resilience fund investments authorized by PA 19-77 on behalf of the municipalities.
 - f. **Support the creation of Property Assessed Resiliency as part of Commercial Property Assessed Clean Energy (C-PACE).** C-PACE is an innovative financing solution from the Connecticut Green Bank (“Green Bank”) that makes clean energy improvements to properties safe, accessible, and affordable. The recommendation of Property Assessed Resiliency would be included within and expand the purview of the C-PACE public policy to include resiliency as a qualifying commercial real property measure.
57. **Support the creation of an Environmental Infrastructure Bank in Connecticut.** The creation of an Environmental Infrastructure Bank would be included within and expand

the purview of the Connecticut Green Bank to include “environmental infrastructure” as an area of investment. The policy would enable the Green Bank to use its existing bonding authority to finance environmental infrastructure projects, and provide low-cost financing and credit enhancement mechanisms for projects and technologies.

58. **Convene Connecticut’s community foundation and philanthropic leaders on addressing climate change.** Convene an intensive workshop to address investing in community capacity building, and annual climate adaptation training of environmental justice organizations with the goal of establishing an ongoing partnering relationship and working group among the stakeholders.
59. **Leverage Connecticut’s leadership in the insurance industry to promote the increased uptake of insurance as a tool to address climate risk while convening the industry on carbon neutral investment policies.** Reducing or removing barriers in closing the gap in risk mitigation from losses resulting from severe weather events will support financing greater resilience in the face of the potential impacts of climate change. As the Insurance Capital of the World’ Connecticut is uniquely situated to address these challenges going forward.
- a. **Build outreach and capacity and tracking for the increased uptake of flood insurance.** Flood insurance is an adaptation and resilience tool that is underutilized in Connecticut. Not only does flood insurance provide a means to recover from flood damage, but it also sets up a structure to incentivize behaviors that lower the risk of flooding such as elevating homes or reducing community flood risk. Savings on flood insurance can be used as a financing mechanism to pay for adaptation and resilience measures.
 - b. **Convene the insurance industry on carbon neutral investment policies and promote and grow the catastrophe bond market.** Hold a conference with the insurance industry and state regulators to identify different strategies where the industry can assist states in reducing reliance on fossil fuels, as well as understanding how insurers can assist in mitigating the impacts of climate change on property, including increasing disclosure of climate-related risk and identifying alternative methods to protect communities through Catastrophe (CAT) Bonds and other risk transfer vehicles.

Science & Technology (S&T)

60. **Support climate science for Connecticut.** Propose a process to review advances in climate science projections and data for Connecticut and to track climate change impacts on its communities. The process should include but not be limited to determining report intervals (e.g. every 5 or 10 years for projections / every 1-2 years

for impacts), scope (including identifying indices and multi-solving opportunities), impacts on under-served communities, institutional roles, partners, and funding. The GC3 report contains both sea level rise planning scenarios and projected climate impacts for Connecticut in the areas of temperature, precipitation and storms. Connecticut's climate has already been impacted and will continue to be impacted by climate change. Effective decision-making will require tracking the advancements in climate science and the coordination of data acquisition to track impacts. Additionally, this information must be shared and utilized on the ground, and therefore, the proposed process should also include:

- a. identifying climate change and adaptation research needs, and the dissemination of current climate change adaptation research and technical resources to the appropriate stakeholders
- b. selecting and establishing pilot region(s) to quantify and demonstrate site-specific co-benefits of comprehensive climate resilience planning that is proactive and risk-based

61. Support climate science education. Develop an inclusive Connecticut-based training strategy for climate science and impacts for formal and informal educators. This will help them be effective communicators of climate science, climate change impacts, and resilience strategies. The program should reach audiences from K-12 school systems, current, and future teachers, municipal leaders, and diverse community groups.