

Public Hearing – March 8, 2021  
Environment Committee

Testimony Submitted by Commissioner Katie S. Dykes

### **House Bill No. 6441 – An Act Concerning Climate Change Adaptation**

Thank you for the opportunity to offer testimony on House Bill 6441 – An Act Concerning Climate Change Adaptation, proposed by Governor Lamont. The purpose of this bill is to the ability of Connecticut’s communities to fund and finance climate adaptation and resilience projects. The Department of Energy and Environmental Protection (DEEP) supports this bill because it helps to address the rising seas, frequent flooding, heat waves, and drought we can expect to see in the state between now and 2050. It prioritizes the protection of our frontline vulnerable communities who will feel those effects first and worst. It provides Connecticut’s communities more options to move from planning for adaptation and resilience to implementing their project pipeline, including the use of nature-based and green infrastructure solutions. It leverages the Connecticut Green Bank’s success and leadership financing clean energy investments towards supporting environmental infrastructure investments. Enacting this bill in the 2021 legislative session will be timely, to position Connecticut well to compete for the federal grants for resilience projects, particularly in the new FEMA Building Resilient Infrastructure in Communities grant program. Funding for that program is projected to grow from \$500 million in FY20 to up to \$3.7 billion in the coming years; the program requires a local match, which this bill will enable Connecticut communities to support.

To achieve these outcomes, the Governor developed this bill around four cornerstone proposals, as recommended by the Governor’s Council on Climate Change, known as the GC3 and its 230+ Working Group members. Governor Lamont reconstituted GC3 in 2019 to develop a list of action items to make Connecticut more resilient to the impacts of climate change.

The four proposals are:

- **Authorizing the creation of municipal stormwater authorities statewide.**
- **Enabling municipalities to have the option to adopt a buyer’s conveyance fee.**
- **Adding flood prevention and climate resilience to the purview of municipal flood and erosion control boards and clarifying they can use funds to cover operations and maintenance costs.**
- **Expanding the Green Bank to include an Environmental Infrastructure Fund to finance adaptation and resilience projects**

**Authorizing the creation of municipal stormwater authorities statewide.** In Sections 1 and 2, the proposal expands the current pilot program for municipal stormwater authorities that was authorized by PA 07-154 and codified under Section 22a-497, et. seq, giving all municipalities the ability to create such an authority. The authority, also referred to as a stormwater utility, can establish a district within a municipality to impose a fee on users of the stormwater infrastructure in that area. When establishing the fee on properties the stormwater authority is charged with

taking into account the amount of impervious surface area on a property, since this cover generates stormwater runoff, as well as types of land uses that result in higher or lower concentrations of stormwater pollution and the grand list value of the property. Fees can be used to develop a stormwater management program to comply with minimum control measures mandated under the federal Clean Water Act to address stormwater pollution from existing and proposed land uses through the implementation of public education and outreach; public participation; illicit discharge detection and elimination (IDDE); construction stormwater management; post-construction stormwater management; and pollution prevention and good housekeeping. Stormwater authorities can help municipalities invest in green infrastructure that reduces impervious surface as well as resiliency investments that address flooding related to stormwater. The fees generated can be used to leverage additional state and federal funding sources by providing a local match or revenue stream to pay back loans. The stormwater authority can plan, layout, acquire, construct, reconstruct, repair, maintain, supervise and manage stormwater control systems.

For more than thirty years, stormwater authorities have been used extensively in other states to perform these functions and meet expenses: approximately 1,800 local stormwater authorities currently exist in the United States,<sup>1</sup> demonstrating they are already a widely accepted approach nationally. In Connecticut however, due in part to the very limited scope of the current pilot program in the state, only one municipality has implemented a stormwater authority. The City of New London adopted a stormwater authority in 2018, as a means to both improve water quality and address flooding. The stormwater authority will help New London implement the MS4 permit that requires each municipality to take steps to keep the stormwater entering its storm sewer systems clean before that stormwater enters water bodies. The City also described significant and frequent stormwater flooding on Bank Street and Broad Street that makes roads dangerous and impassable and impacts local businesses and homes as reasons to address their stormwater needs. The City chose to pursue a stormwater utility as a funding stream because the fees are based on impervious cover on all properties in the City that use the storm sewer system and provides a dedicated source of revenue to support projects.<sup>2</sup>

The creation of stormwater authorities was recommended by the GC3 Working Groups that developed strategies to adapt working and natural lands, infrastructure, and land use to the impacts of climate change. It was also recommended by the GC3 Working Group charged with identifying options for financing and funding adaptation and resilience strategies. These Working Groups cited the multiple benefits of stormwater authorities of providing a reliable funding stream for resilient stormwater infrastructure in addition to their focus on using green infrastructure solutions for stormwater management and to reduce flooding. Green infrastructure solutions like rain gardens and bioswales – 200 of which have been constructed in downtown New Haven in the past few years – have the additional co-benefits of cleaning air and water and reducing heat island effects in urban environments by reducing impervious cover and greening neighborhoods. DEEP strongly believes this will also be a valuable tool to ensure an adequate revenue stream to support compliance with federal Clean Water Act requirements and address long-standing stormwater issues in many towns.

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<sup>1</sup> <https://www.greenribboncommission.org/wp-content/uploads/2018/04/Financing-Climate-Resilience-April-2018.pdf>

<sup>2</sup> <https://conservect.org/eastern/wp-content/uploads/2019/07/City-of-New-London-Stormwater-Management.pdf>

**Enabling municipalities to have the option to adopt a buyer’s conveyance fee.** Section 3 gives municipalities the option to adopt a buyer’s convenience fee to fund certain investments. If municipalities decide to adopt the fee, it could be used by them for:

- funding the purchase, preservation or stewardship of open space land, as well as other land interests, including, but not limited to water resources, forest land and farmland;
- funding for the Climate Change and Coastal Resiliency Reserve Fund or other municipal climate resilience, mitigation or adaptation strategies;
- matching of Community Investment Act (CIA) funded programs (including for affordable housing) and other state and federal grants
- funding of other environmental projects, including urban forestry and planting of trees; and
- repayment of municipal bonds for any of these activities.

The fee is structured progressively, ranging from 0.5% to 1.5% depending on the amount of the consideration paid by the buyer.

- For purchases equal to or less than \$800,000, the fee is not more than .5% on the portion of the purchase price that exceeds \$150,000.
- For purchases greater than \$800,000 but equal to or less than \$2.5 million, the fee is not more than 1% on the portion of the purchase price that exceeds \$800,000.
- For purchases greater than \$2.5 million, the fee is not more than 1.5% on the portion of the purchase price that exceeds \$2.5 million.

The legislation is structured to ensure that the program does not undermine the development of affordable housing in the participating municipalities.

The buyer’s conveyance fee provides municipalities with a steady revenue source, in addition to municipal bonding or appropriations for climate adaptation and resilience projects. Revenue sources are critical for resilience projects because while such projects are incredibly important to protect public safety, infrastructure, and property values, we have no easy way to capture the value of the avoided loss from climate change or a natural disaster and using that value to pay for resilience projects. Insurance premiums are one way to do this, but they are not sufficient for community-scale resilience projects. The GC3 financing and funding working group recommended the buyers conveyance fee as one type of resilience fee that Connecticut could establish to fulfill this need for a revenue source.

By focusing these funds on open space preservation and stewardship, the program assists with providing critical matching funds to advance the State of Connecticut further toward achieving its statutory goal pursuant to CGS section 23-8 and the CT Comprehensive Open Space Acquisition Plan (Green Plan) goal of protecting 673,210 acres of land – approximately 21 percent of land in the state, including preserving lands that act as a buffer to the impacts of climate change. At this time, Connecticut has just over 512,000 acres designated as state or local open space lands, which is just over 76 percent of the goal.

Pursuant to CGS section 7-131d-k, the Open Space and Watershed Land Acquisition program (OSWA), administered by DEEP assists local governments, land trusts, and water companies in purchasing open space using funding from the Community Investment Act and state bond funds. The grants awarded through the Open Space grant program have tremendous value for our dense,

developed state by protecting forests, wildlife habitat, watersheds and wetlands and protecting ecosystems that are sequestering carbon. In particular, the Urban Green and Community Garden (UGCG) initiative provides opportunities for urban forestry and tree planning recognizing that more trees in our urban environments can keep our cities cooler while cleaning the air and water in some of our most vulnerable communities. A recent report from the Yale Center on Climate Change and Health recommends urban tree planting and maintenance in Connecticut’s cities to help counteract the urban heat island effect associated with climate change.<sup>3</sup> Our cities know this fact already however. The City of Hartford’s Climate Action Plan for landscapes lists improving tree canopy coverage as their top goal as well as prioritizing the resiliency of trees. In New Haven the Urban Resources Initiative is planting trees and bioswales around the city while training ex-offenders facing employment barriers through their GreenSkills program. The buyer’s conveyance fee could provide an additional source of revenue for these plans and programs.

**Adding flood prevention and climate resilience to the purview of municipal flood and erosion control boards and clarifying they can use funds to cover operations and maintenance costs.**

In Sections 4 to 18, this bill allows the boards to undertake a wider range of activities, including utilizing nonstructural and nature-based measures such as removal, relocation or modification of existing structures, restoration and maintenance of open floodplain or other water storage area and any feasible, less environmentally damaging alternative, as defined in section 22a-92, which includes living shorelines.<sup>4</sup> The boards would be renamed “flood prevention, climate resilience, and erosion control boards” to reflect this expanded scope. The bill clarifies the boards may use special assessments, municipal Climate Change and Coastal Resiliency Reserve Funds as well as state, federal or private dollars to build, operate, and maintain any projects they undertake. The bill directs the boards to consider hazard mitigation and resilience plans as well as to prioritize vulnerable communities and to consult with the Connecticut Institute for Resilience and Climate Adaptation (CIRCA). This section of the bill also expands the *existing* authority of municipalities to establish districts to implement flood or erosion control systems to now use that authority to implement flood prevention, climate resilience and erosion control systems.

The boards give municipalities the option to use these new authorities to help implement resilient infrastructure projects that are eligible for federal funding, like those funded through Connecticut’s Sandy recovery program or the FEMA Building Resilient Infrastructure in Communities program, formerly the pre-disaster mitigation program. Clarifying their authorization to cover the costs to operate and maintain new and existing climate resilience projects is critical for our success for climate resilience since federal funds are not often allowed to be used to cover these costs for infrastructure investments. Incorporating nature-based measures into the boards’ charge also sets up our municipalities to be more competitive for federal funding since this is a high priority of those programs and carries with it a multitude of co-benefits, including cleaner air and water and addressing heat impacts as well as flooding. Both the GC3 Financing & Funding Adaptation & Resilience Working Group and the Infrastructure & Land Use Working Group identified

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[https://publichealth.yale.edu/climate/policy\\_practice/YCCCH%20Extreme%20heat%20issue%20brief\\_407652\\_284\\_48542\\_v2.pdf](https://publichealth.yale.edu/climate/policy_practice/YCCCH%20Extreme%20heat%20issue%20brief_407652_284_48542_v2.pdf)

<sup>4</sup> “feasible, less environmentally damaging alternative” includes, but is not limited to, relocation of an inhabited structure to a landward location, elevation of an inhabited structure, restoration or creation of a dune or vegetated slope, or living shorelines techniques utilizing a variety of structural and organic materials, such as tidal wetland plants, submerged aquatic vegetation, coir fiber logs, sand fill and stone to provide shoreline protection and maintain or restore coastal resources and habitat

expanding authority to undertake resilient infrastructure projects as critical for Connecticut's path forward on addressing climate change.

To be clear, the expansion of flood and erosion control boards' authorities augments, but does not replace, ongoing activities in other bodies within our municipalities, including efforts to update and implement plans of conservation and development and hazard mitigation plans to include our state's sea level rise scenarios and the impacts of climate change. We applaud the efforts of our municipalities who have undertaken or are undertaking resilience planning, including our conservation districts and the Councils of Governments and municipalities partnering with CIRCA and the Department of Housing's *Resilient Connecticut* program in Fairfield and New Haven counties. We look forward to continuing to work with our municipalities on those initiatives and determining how this new authority can assist those efforts. Taking action on climate change is everyone's responsibility.

**Expanding the Green Bank to include an Environmental Infrastructure Fund to finance adaptation and resilience projects.** In Sections 18-23 under this proposal, would authorize the Green Bank to invest in environmental infrastructure, including structures, facilities, systems, services and improvement projects related to water, waste and recycling, climate adaptation and resiliency, agriculture, land conservation, parks and recreation, and environmental markets, including, but not limited to, carbon offsets and ecosystem services. Carbon offsets are defined as any activity that compensates for the emission of carbon dioxide or other greenhouse gases by providing for an emission reduction elsewhere. Ecosystem services means benefits obtained from ecosystems, including, but not limited to, services related to food and water, regulation of floods, drought, land degradation and disease, and soil formation and nutrient cycling.

Under this expansion, the Green Bank would be allowed to utilize its bonding authority, as well as seek federal funding, to raise capital to invest in and stimulate more private investment in such projects in Connecticut through an Environmental Infrastructure Fund modeled after the Clean Energy Fund. The bill clarifies the Environmental Infrastructure Fund may not utilize ratepayer funds or Regional Greenhouse Gas Initiative funds or funds meant for the Clean Water Fund or collected from a water company. It stipulates the Green Bank shall not apply for grants under the Clean Water Act or the Safe Drinking Water Act without the approval of the Commissioner of Energy and Environmental Protection or State Treasurer and Commissioner of Public Health.

In addition to the specific examples of the value of each the four cornerstone proposals already shared above, the DEEP would like to reiterate the critical need for this legislation as a whole to address our state's ability to adapt to the impacts of climate change.

*This bill provides funding streams for our municipalities' project pipeline.*

Recognizing the importance of looking ahead to future climate change needs, Connecticut has been planning our resilient future. The state invested millions of state and federal funds in resilience and adaptation planning, including 32 coastal resilience plans funded by our Sandy disaster recovery program as well as municipal hazard mitigation and watershed management plans across the state. Each of these plans may include dozens of conceived projects. A regional resilience planning effort led by the Councils of Governments identified 400 projects in 30 coastal communities' plans alone. Connecticut has also invested in the science needed to better inform these projects, through the creation of the Connecticut Institute for Resilience and Climate Adaptation (CIRCA), which is now leading *Resilient Connecticut*. The *Resilient Connecticut* team

is applying climate-science informed planning to develop projects that will result in significant regional benefit. Many of these plans incorporated nature-based and green infrastructure solutions like living shorelines, rain gardens, bioswales, tree planting, and preservation of open space to address the impacts of climate change.

This project pipeline already has a strong start in Connecticut's communities. The living shoreline reef ball and wetland restoration project in Stratford was permitted through a special streamlined permitting program at DEEP for certain types of projects, including living shorelines<sup>5</sup> and undertaken by Sacred Heart University in collaboration with the property owner and support from Audubon Connecticut. It employs cutting edge living shoreline approaches with highly successful results that are being monitored by Sacred Heart and UConn CIRCA and will be used to inform guidance for constructing future living shoreline projects across the state and nation. The living shoreline has grown into the largest in New England, with 900 feet of coastal erosion control and resiliency, four acres of intertidal habitat, one acre of coastal dune habitat and 25 acres of woodland and meadow habitat. In September 2020 it was recognized with the Best Restored Shore award by the American Shore and Beach Association. Stratford is also one of dozens of communities that have undertaken coastal resilience plans in recent years, led by Guilford with its first in the state coastal resilience plan. Our municipalities have also led the way on establishing their own innovative funding mechanisms to implement their plans with Branford being the first in the state to establish a dedicated Shoreline Resiliency Fund that served as the model for Public Act 19-77, establishing Climate Change and Coastal Resiliency Reserve Funds. These projects and programs demonstrate our state's strong capacity to continue leading on climate resilience projects and this bill will help them on their way. DEEP would like to encourage more applications of this type.

*This bill addresses climate change vulnerability.*

Climate change has already altered Connecticut's climate with impacts the state will see between now and 2050. These impacts include up to 20 inches of sea level rise, increased frequency of flooding with water levels like those experienced during Superstorm Sandy every 5 to 10 years, increased average temperatures of 5°F and heat waves, increased drought risk, increased frequency of extreme rainfall events, and greater amounts of precipitation and stronger winds during storm events. In addition to climate change, Connecticut is clearly vulnerable to coastal storms. The estimated insured value of Connecticut coastal property exposures in 2018 was \$754 billion,<sup>6</sup> which makes the state the 6th highest of the Atlantic and Gulf states. As a percentage of a state's total insured values, Connecticut is 2nd only to Florida with coastal property making up 66% of its statewide total insured value.<sup>7</sup> The good news is that with aggressive reductions in greenhouse gas emissions in our state, across the nation, and world, we can avoid the catastrophic and extremely costly effects of climate change projected for the latter half of this century. But we must also adapt and become more resilient to effects we have already baked into our state's climate.

*This bill prioritizes vulnerable communities.*

Research indicates that climate change related events have a disproportionate effect on people of color and low- to moderate-income communities. Vulnerable communities have a heightened degree of exposure to impacts and limited capacity to minimize and respond to them. Climate change poses the greatest threat to vulnerable communities that are least responsible for it. Vulnerable communities face historic and ongoing injustices. Given this reality, climate funding

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<sup>5</sup> <https://portal.ct.gov/DEEP/Coastal-Resources/Coastal-Management/Living-Shorelines>

<sup>6</sup> <https://www.air-worldwide.com/Models/Tropical-Cyclone/The-Coastline-at-Risk/>

<sup>7</sup> Ibid

and financing mechanisms for adaptation and resilience must acknowledge these equity disparities and overcome them by prioritizing approaches that reduce them. Building on the expansion of the state's microgrid program passed in the special session to now include resilience projects and prioritize those grants for vulnerable communities, this bill ensures there are more resources available to vulnerable communities at the municipal level that will enable them to live, learn, and work in resilient communities. The bill requires municipalities to analyze how vulnerable communities are prioritized in projects undertaken by the new flood prevention, climate resilience and erosion control boards.

*This bill accelerates climate financing in Connecticut.*

Globally, roughly half a trillion dollars of investment flow into climate finance, including both mitigation and adaptation projects; the global need however, is on the order of \$1.6-3.8 trillion.<sup>8</sup> The share of private finance flowing toward climate adaptation and resilience - globally and locally - is less than what is needed. To this point, a national Clean Energy and Sustainability Accelerator (formerly National Climate Bank) proposal was passed by the U.S. House of Representatives twice in 2020, with the Senate likely to take-up the bill early in 2021; some form of the Accelerator is expected to be in the Biden Administration's infrastructure stimulus. Connecticut has an opportunity to be positioned to capitalize on this legislative initiative and show that it is the right place to scale up new climate-responsive infrastructure investment while putting thousands back to work preparing and protecting our communities from the impacts of climate change.

*This bill prepares Connecticut for federal climate resilience investment.*

In recent years, the Federal Emergency Management Agency launched the Building Resilient Infrastructure in Communities (BRIC) grant program utilizing funds authorized by the bipartisan Disaster Recovery and Reform Act of 2018. Two years ago, this program's predecessor topped out at just \$25 million per year nationally for disaster mitigation grants. In FY20, the new BRIC program offered 25 times that amount with \$500 million available in grants. Connecticut, through the Department of Emergency Services and Public Protection, submitted upwards of \$123 million in projects under that call for proposals at the end of January. Recently it was reported that up to \$3.7 billion could become available for grants in the coming years since Congress has authorized FEMA to use up to 6% of the Disaster Relief Fund for resilience and with the high number of disasters lately, including the current pandemic, the amount of money in the Fund is growing. With this change states now have a significant source of annual federal funding for resilience projects, but each of these grants requires a 25% non-federal cost share and significant design and feasibility work. The Governor's bill sets Connecticut up to be ready for this federal investment with more options for municipalities to meet the planning and non-federal cost share needs and creating the Environmental Infrastructure Fund within the Connecticut Green Bank to open the door to financing.

Thank you for the opportunity to present testimony on this proposal. Should you have any questions, please do not hesitate to contact [James Albis at James.Albis@ct.gov](mailto:James.Albis@ct.gov).

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<sup>8</sup> <https://www.climatepolicyinitiative.org/wp-content/uploads/2020/12/Updated-View-on-the-2019-Global-Landscape-of-Climate-Finance-1.pdf>