

# Grantee: Connecticut - DOH

## Grant: B-13-DS-09-0002

### January 1, 2021 thru March 31, 2021 Performance

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<b>Grant Number:</b> B-13-DS-09-0002	<b>Obligation Date:</b>	<b>Award Date:</b>
<b>Grantee Name:</b> Connecticut - DOH	<b>Contract End Date:</b>	<b>Review by HUD:</b> Original - In Progress
<b>Grant Award Amount:</b> \$54,277,359.00	<b>Grant Status:</b> Active	<b>QPR Contact:</b> No QPR Contact Found
<b>LOCCS Authorized Amount:</b> \$54,277,359.00	<b>Estimated PI/RL Funds:</b>	
<b>Total Budget:</b> \$54,277,359.00		

### Disasters:

#### Declaration Number

No Disasters Found

### Narratives

#### Executive Summary:

Connecticut's resilience activities exist at three scales: local demonstration infrastructure projects that will enhance resilience in the low-moderate income City of Bridgeport as a model for the rest of the state, a regional planning process to create a blueprint for resilience across the MID-URN areas of Fairfield and New Haven Counties, and state policy to institutionalize resilience through the SAFR (State Agencies Fostering Resilience) Council.

In Bridgeport, NDR funds will be used to construct three projects and complete two studies. The state will construct a raised University Avenue to provide dry egress for multiple properties that are receiving state support to remediate brownfields and redevelop as mixed-use, a berm that will encircle the eastern area of the South End and significantly reduce flood risk to a large area that includes power generation and substations as well as affordable and historic housing and future transit-oriented development opportunities, and a resilience design center to act as a community hub for resilience activities. The state will study the potential to leverage the regional energy generation and distribution infrastructure located in the South End of Bridgeport for neighborhood benefit and the opportunities for redevelopment in the flood plain in a responsible and resilient manner.

Across Fairfield and New Haven Counties, NDR funds will be used to develop the regional coastal resilience plan, Connecticut Connections. This plan will be based on modeling to be conducted to better understand flood risk and the combination of coastal surge and riverine flooding and provide a blueprint towards resilience for the communities from Greenwich to Madison.

Statewide, NDR funds will support the SAFR Council in their effort to create a resilience roadmap for the state and to institutionalize resilience into state policies.

The activities being carried out under NDR contribute to the State's efforts to affirmatively further fair housing by: 1) enabling the continued safe habitation of existing affordable housing opportunities within walking distance of jobs, public transportation and amenities; 2) mitigating both present and future flood related issues of both publicly and privately owned properties targeted for future multifamily and economic development; and 3) preserving and increasing the potential for affordable homeownership opportunities in this target neighborhood. In addition, the NDR activities will contribute to addressing the regional need to affirmatively further fair housing by encouraging both housing and economic development in low flood risk and transit-oriented neighborhoods across Fairfield and New Haven counties. Many of these NDR activities address specific action steps found in the State of Connecticut Analysis of Impediments to Fair Housing Choice, which is compliant with and supports the federal obligation to affirmatively further fair housing. These action steps include: 1) encourage the creation and rehabilitation of affordable housing in a variety of locations; 2) collaborate with other state agencies to affirmative further fair housing; and 3) ensure state and local planning documents affirmatively further fair housing.

#### MID-URN Areas:

The State of Connecticut activities focus on the MID-URN geographies of Fairfield and New Haven Counties with the NDR-funded infrastructure activities limited to the Low-Mod income city of Bridgeport.

#### Key Agencies, Partners, Positions, Personnel:

Staff at the Department of Housing will oversee all activities funded through the NDR grant. In addition to a Director of the program, the state will be competitively procuring program management support for grant management, compliance, finance, and other functions.

The bulk of the work will be conducted by consultants and the state is just completing its first public procurement for alternatives assessment, environmental review, and preliminary engineering. Additional consultants will be procured as needed as the projects progress.

The CT Institute for Resilience and Climate Adaptation (CIRCA) at the University of Connecticut will act a sub-recipient, leading the CT Coastal Connections Regional Plan process.



Other state agencies through the SAFR Council including the Office of Policy and Management, Department of Transportation, Department of Energy and Environmental Protection and others will support the Department of Housing on timely permitting, review, and other support measures to ensure that the outcomes and timelines of the projects are met.

Overall	This Report Period	To Date
<b>Total Projected Budget from All Sources</b>	\$0.00	\$65,693,082.00
<b>Total Budget</b>	\$0.00	\$54,277,359.00
<b>Total Obligated</b>	\$1,002,702.83	\$10,528,545.62
<b>Total Funds Drawdown</b>	\$989,421.23	\$10,488,700.82
<b>Program Funds Drawdown</b>	\$989,421.23	\$10,488,700.82
<b>Program Income Drawdown</b>	\$0.00	\$0.00
<b>Program Income Received</b>	\$0.00	\$0.00
<b>Total Funds Expended</b>	\$989,421.23	\$10,488,700.82
<b>HUD Identified Most Impacted and Distressed</b>	\$21,682.85	\$4,780,225.69
<b>Other Funds</b>	\$ 0.00	\$ 11,415,723.00
Match Funds	\$ 0.00	\$ 11,415,723.00
Non-Match Funds	\$ 0.00	\$ 0.00

### Funds Expended

Overall	This Period	To Date
STATE OF CONNECTICUT	\$ 989,421.23	\$ 10,488,700.82
State of Connecticut	\$ 0.00	\$ 0.00

## Progress Toward Required Numeric Targets

Requirement	Target	Projected	Actual
<b>Overall Benefit Percentage</b>	50.00%	100.00%	100.00%
<b>Overall Benefit Amount</b>	\$2,713,867,950.00	\$42,574,036.00	\$5,877,670.03
<b>Limit on Public Services</b>	\$8,141,603.85	\$0.00	\$0.00
<b>Minimum Supporting Leverage</b>	\$146,820,899.00	\$925,846,000.00	\$0.00
<b>Limit on Admin/Planning</b>	\$12,380,665.59	\$12,383,323.00	\$4,794,995.79
<b>Limit on Admin</b>	\$0.00	\$2,713,868.00	\$1,191,990.18
<b>Most Impacted and Distressed</b>	\$54,277,359.00	\$0.00	\$4,780,225.69

### Overall Progress Narrative:

The first quarter of 2020 was highlighted by completion field investigation required to advance the design to the 60% milestone. Additionally, CTDOH along with the project team initiated a regimented schedule of coordination meetings with CTDEEP and other state agencies, City of Bridgeport departments, stakeholders, and the community. During this period the design showed significant advancement towards the 60% milestone in the early part of Q2 2021.

For Administration, the project management consultant team continues to support all aspects of administration including procurement, finance, audit, monitoring, document storage, environmental review, and construction. Into Q2 2021, the key work will involve completion of the 60% design submission to CTDOH, continuation of the project outreach to stakeholders and state and federal agencies as well as the Technical Advisory Committee (TAC), Community Advisory Committee (CAC) and to the public in general. Q2 will also include the advancement of the design documents towards the 90% milestone (scheduled to be delivered in Q3 2021) and continued coordination with the Bassick High School project adjacent to the Flood Risk Reduction Project (FRRP) and stakeholder outreach.

## Project Summary

Project #, Project Title	This Report	To Date	
	Program Funds Drawdown	Project Funds Budgeted	Program Funds Drawdown
9999, Restricted Balance	\$0.00	\$0.00	\$0.00
LTC, Long Term Commitment	\$0.00	\$0.00	\$0.00
NDR-ADMIN-26336, Administration	\$14,804.14	\$2,713,868.00	\$1,191,990.18
NDR-BPT-, Bridgeport South End	\$8,401.25	\$42,574,036.00	\$5,877,670.03
NDR-CCRP-, Connecticut Connections Coastal Resilience	\$966,215.84	\$8,989,455.00	\$3,419,040.61
NDR-SAFR-, SAFR Administration	\$0.00	\$0.00	\$0.00
OV, Outcome Values	\$0.00	\$0.00	\$0.00
SL, Supporting Leverage	\$0.00	\$0.00	\$0.00

## Activities

**Project # / NDR-ADMIN-26336 / Administration**



**Grantee Activity Number:** NDR-ADMIN

**Activity Title:** Administration

**Activity Type:**

Administration

**Activity Status:**

Under Way

**Project Number:**

NDR-ADMIN-26336

**Project Title:**

Administration

**Projected Start Date:**

02/08/2017

**Projected End Date:**

09/30/2022

**Benefit Type:**

N/A

**Completed Activity Actual End Date:**

**National Objective:**

NA

**Responsible Organization:**

STATE OF CONNECTICUT

**Overall**

**Total Projected Budget from All Sources**

**Jan 1 thru Mar 31, 2021**

\$0.00

**To Date**

\$2,713,868.00

**Total Budget**

\$0.00

\$2,713,868.00

**Total Obligated**

\$14,804.14

\$1,191,990.18

**Total Funds Drawdown**

\$14,804.14

\$1,191,990.18

**Program Funds Drawdown**

\$14,804.14

\$1,191,990.18

**Program Income Drawdown**

\$0.00

\$0.00

**Program Income Received**

\$0.00

\$0.00

**Total Funds Expended**

\$14,804.14

\$1,191,990.18

STATE OF CONNECTICUT

\$14,804.14

\$1,191,990.18

**Most Impacted and Distressed Expended**

\$0.00

\$0.00

**Other Funds**

\$ 0.00

\$ 0.00

Match Funds

\$ 0.00

\$ 0.00

Non-Match Funds

\$ 0.00

\$ 0.00

**Other Funds:**

**Overall**

Match Funds

**This Period**

\$ 0.00

**To Date**

\$ 0.00

Department of Energy and Environmental Protection

\$ 0.00

\$ 0.00

Department of Transportation

\$ 0.00

\$ 0.00

Office of Policy and Management

\$ 0.00

\$ 0.00

University of Connecticut, CT Institute for Resilience and

\$ 0.00

\$ 0.00

**Activity Description:**

Grant Administration activities to ensure that the program deadlines are met and all HUD regulations are followed in achieving the desired outcomes of the other projects.

**Location Description:**

Statewide

**Activity Progress Narrative:**

The program management (PM) consultant continues to provide support for all aspects of the program



grant. As the liaison between the project consultants and CTDOH they have established a document management system that will house all aspects of the program including contracts, submittals, reports and registers and financials. The PM has established and continues to maintain efficient workflows that will allow for full tracking of all program components. The PM has been working with the project consultants and CTDOH on the development of a formal Risk Register. An updated Risk Register covering project components through the end of 2020 has been completed and resides in the document management system. Proceeding forward the updates to the Risk Register will occur at predetermined milestones as outlined in the project schedule and agreed upon by CTDOH. The PM, working with CTDOH has obtained updated the leverage reporting for both sort and long term leverage for the project. These documents also reside in the document management system. The PM continues to review and process consultant invoices and submitting them to CTDOH for final review and approval. As the grantee, CTDOH has full and final oversight of all aspects of the program and the PM team reports directly to CTDOH.

## Accomplishments Performance Measures

**No Accomplishments Performance Measures**

## Beneficiaries Performance Measures

**No Beneficiaries Performance Measures found.**

## Activity Locations

**No Activity Locations found.**

## Other Funding Sources Budgeted - Detail

Match Sources	Amount
Department of Energy and Environmental Protection	\$25,000,000.00
Department of Transportation	\$1,000,000.00
Office of Policy and Management	\$350,000.00
University of Connecticut, CT Institute for Resilience and Climate Adaptation	\$1,200,000.00
Subtotal Match Sources	\$27,550,000.00
Other Funding Sources	Amount
No Other Funding Sources Found	
Total Other Funding Sources	\$27,550,000.00

**Activity Supporting Documents:** None

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**Project # / NDR-BPT- / Bridgeport South End**

**Grantee Activity Number:** NDR-BPT-Berm - 2066128

**Activity Title:** Earthen Berm

**Activity Type:**

Dike/dam/stream-river bank repairs

**Project Number:**

NDR-BPT-

**Projected Start Date:**

02/08/2017

**Benefit Type:**

Area Benefit (Census)

**National Objective:**

Low/Mod

**Activity Status:**

Under Way

**Project Title:**

Bridgeport South End

**Projected End Date:**

09/30/2022

**Completed Activity Actual End Date:**

**Responsible Organization:**

STATE OF CONNECTICUT

Overall	Jan 1 thru Mar 31, 2021	To Date
<b>Total Projected Budget from All Sources</b>	\$0.00	\$35,630,036.00
<b>Total Budget</b>	\$0.00	\$35,630,036.00
<b>Total Obligated</b>	\$18,430.43	\$4,841,134.30
<b>Total Funds Drawdown</b>	\$18,430.43	\$4,841,134.30
<b>Program Funds Drawdown</b>	\$18,430.43	\$4,841,134.30
<b>Program Income Drawdown</b>	\$0.00	\$0.00
<b>Program Income Received</b>	\$0.00	\$0.00
<b>Total Funds Expended</b>	\$18,430.43	\$4,841,134.30
STATE OF CONNECTICUT	\$18,430.43	\$4,841,134.30
<b>Most Impacted and Distressed Expended</b>	\$18,430.43	\$3,961,931.08
<b>Other Funds</b>	\$ 0.00	\$ 0.00
Match Funds	\$ 0.00	\$ 0.00
Non-Match Funds	\$ 0.00	\$ 0.00

**Other Funds:**

Overall	This Period	To Date
Match Funds	\$ 0.00	\$ 0.00

**Activity Description:**

Construct an accredited flood protection line linking the redevelopment of 60 Main Street, the new elevated natural gas-fired power plant, and downtown, removing the eastern South End's critical infrastructure and low-moderate income housing and historic districts from the 100-year flood plain and reinforcing the connection between the Downtown and South End neighborhoods.

**Location Description:**

City of Bridgeport's South End

**Activity Progress Narrative:**

Bi-weekly conference calls were conducted with CT DOH, CT DOT and the Design Team to coordinate issues and review design status. Amendment documentation was prepared by the Design Team which included additional public meetings and a Tree Inventory for Seaside Park (requirement of the Programmatic Agreement). Field survey and base map preparation was completed. This was delayed due to PSEG's lack of responsiveness to multiple requests to access their property for survey activities.



Final Design progressed but the survey delay forced the reschedule of the 60% Final Design Submittal from March 19 to April 19. Major design activities included pump station, t-wall, earthen berm and Seaside Park renovations. Coordination meetings were conducted with adjacent property owners including PSEG and the owner of 60 Main Street. Preparation was initiated for public meetings which are to occur after the 60% Final Design submittal. The DOT continues to support DOH and the Design Team with the advancement of the project. This includes at an administrative/procedural level wherein coordination is ongoing with DEEP and internal DOT units to resolve long term, critical questions such as ownership and maintenance, right-of-way acquisition, and permitting. A presentation to DEEP officials was made in early January and followed up with an informational distribution. DOT also is assisting the DOH in coordination with external project stakeholders such as the City of Bridgeport (City) and PSEG. At DOH's request, DOT prepared a "white paper" assessment of the potential cost and schedule implications posed by the City and PSEG's proposal to revise the location of the proposed "north-south alignment" of the coastal flood defense system (CFDS). Coordination is also ongoing relative to the City's proposed construction of a new Bassick High School on former University of Bridgeport property adjacent to the CFDS. DOT continues to organize, lead, and document the biweekly coordination meetings which involves representatives of the project team and stakeholders. As the semi-final design submission nears the DOT is working with the Design team to proactively address design related questions and prepare internal units for review of the project documents.

### Accomplishments Performance Measures

	This Report Period	Cumulative Actual Total / Expected
	Total	Total
# of public facilities	0	0/1
# of Linear feet of Public	0	0/3500
# of Linear miles of Public	0	0/1

### Beneficiaries Performance Measures

	Beneficiaries - Area Benefit Census			
	Low	Mod	Total	Low/Mod
# of Persons	3246	645	4440	87.64

LMI%:	77.08
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### Activity Locations

No Activity Locations found.

### Other Funding Sources Budgeted - Detail

No Other Match Funding Sources Found

Other Funding Sources	Amount
No Other Funding Sources Found	
Total Other Funding Sources	

Activity Supporting Documents: None



**Grantee Activity Number:** NDR-BPT-Energy - 2066130

**Activity Title:** District Energy Feasibility

**Activity Type:**

Planning

**Activity Status:**

Under Way

**Project Number:**

NDR-BPT-

**Project Title:**

Bridgeport South End

**Projected Start Date:**

02/08/2017

**Projected End Date:**

09/30/2022

**Benefit Type:**

Area Benefit (Census)

**Completed Activity Actual End Date:**

**National Objective:**

Low/Mod

**Responsible Organization:**

STATE OF CONNECTICUT

<b>Overall</b>	<b>Jan 1 thru Mar 31, 2021</b>	<b>To Date</b>
<b>Total Projected Budget from All Sources</b>	\$0.00	\$350,000.00
<b>Total Budget</b>	\$0.00	\$350,000.00
<b>Total Obligated</b>	\$0.00	\$223,809.80
<b>Total Funds Drawdown</b>	(\$13,281.60)	\$183,965.00
<b>Program Funds Drawdown</b>	(\$13,281.60)	\$183,965.00
<b>Program Income Drawdown</b>	\$0.00	\$0.00
<b>Program Income Received</b>	\$0.00	\$0.00
<b>Total Funds Expended</b>	(\$13,281.60)	\$183,965.00
STATE OF CONNECTICUT	(\$13,281.60)	\$183,965.00
<b>Most Impacted and Distressed Expended</b>	\$0.00	\$120,877.40
<b>Other Funds</b>	\$ 0.00	\$ 0.00
Match Funds	\$ 0.00	\$ 0.00
Non-Match Funds	\$ 0.00	\$ 0.00

**Other Funds:**

<b>Overall</b>	<b>This Period</b>	<b>To Date</b>
Match Funds	\$ 0.00	\$ 0.00
Department of Energy and Environmental Protection	\$ 0.00	\$ 0.00

**Activity Description:**

Develop a plan to leverage the existing regional electricity transmission, distribution, and generation located within the Project area coupled with the two local micro-grids for local benefit. The result will be a strategy for the district-wide energy opportunity that can be replicated throughout the region.

**Location Description:**

City of Bridgeport's South End, West End, and Black Rock Harbor

**Activity Progress Narrative:**

The energy study, with a revised scope established in Q4 of 2018, was delivered to DOH at the end of Q2 or 2020, per the project schedule. Design Team services for this activity have been completed.





## Accomplishments Performance Measures

	This Report Period	Cumulative Actual Total / Expected
	Total	Total
# of Plans or Planning Products	0	0/1
# of community engagement	0	0/2

## Beneficiaries Performance Measures

	Beneficiaries - Area Benefit Census			
	Low	Mod	Total	Low/Mod
# of Persons	6600	1440	9430	85.26

LMI%:	80.16
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## Activity Locations

No Activity Locations found.

## Other Funding Sources Budgeted - Detail

Match Sources	Amount
Department of Energy and Environmental Protection	\$5,155,899.00
Subtotal Match Sources	\$5,155,899.00
Other Funding Sources	Amount
No Other Funding Sources Found	
Total Other Funding Sources	\$5,155,899.00

Activity Supporting Documents: None



**Grantee Activity Number:** NDR-BPT-ResCtr - 2066127

**Activity Title:** Resilience Center

**Activity Type:**

Rehabilitation/reconstruction of public facilities

**Project Number:**

NDR-BPT-

**Projected Start Date:**

02/02/2017

**Benefit Type:**

Area Benefit (Census)

**National Objective:**

Low/Mod

**Activity Status:**

Under Way

**Project Title:**

Bridgeport South End

**Projected End Date:**

09/30/2022

**Completed Activity Actual End Date:**

**Responsible Organization:**

STATE OF CONNECTICUT

<b>Overall</b>	<b>Jan 1 thru Mar 31, 2021</b>	<b>To Date</b>
<b>Total Projected Budget from All Sources</b>	\$0.00	\$1,000,000.00
<b>Total Budget</b>	\$0.00	\$1,000,000.00
<b>Total Obligated</b>	\$520.39	\$135,151.86
<b>Total Funds Drawdown</b>	\$520.39	\$135,151.86
<b>Program Funds Drawdown</b>	\$520.39	\$135,151.86
<b>Program Income Drawdown</b>	\$0.00	\$0.00
<b>Program Income Received</b>	\$0.00	\$0.00
<b>Total Funds Expended</b>	\$520.39	\$135,151.86
STATE OF CONNECTICUT	\$520.39	\$135,151.86
<b>Most Impacted and Distressed Expended</b>	\$520.39	\$110,327.29
<b>Other Funds</b>	\$ 0.00	\$ 0.00
Match Funds	\$ 0.00	\$ 0.00
Non-Match Funds	\$ 0.00	\$ 0.00

**Other Funds:**

<b>Overall</b>	<b>This Period</b>	<b>To Date</b>
Match Funds	\$ 0.00	\$ 0.00

**Activity Description:**

Construct a design center in the South End to operate as a community center and provide a central location for providing information to the community and assist the community in future recovery efforts.

**Location Description:**

City of Bridgeport's South End

**Activity Progress Narrative:**

During Final Design, the team will contribute to the collaborative understanding of how MDR funding to the Freeman Houses will be used to create space and programming reflective of the proposed resilience center status of Freeman Houses. No Design Team activity this quarter.



## Accomplishments Performance Measures

No Accomplishments Performance Measures

## Beneficiaries Performance Measures

### Beneficiaries - Area Benefit Census

	Low	Mod	Total	Low/Mod
# of Persons	3240	645	4440	87.50

LMI%:	
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## Activity Locations

No Activity Locations found.

## Other Funding Sources Budgeted - Detail

No Other Match Funding Sources Found

### Other Funding Sources

Amount

No Other Funding Sources Found

Total Other Funding Sources

Activity Supporting Documents: None

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**Grantee Activity Number:** NDR-BPT-Univ-2066126

**Activity Title:** University Ave

**Activity Type:**

Construction/reconstruction of streets

**Activity Status:**

Under Way

**Project Number:**

NDR-BPT-

**Project Title:**

Bridgeport South End

**Projected Start Date:**

02/08/2017

**Projected End Date:**

09/30/2022

**Benefit Type:**

Area Benefit (Census)

**Completed Activity Actual End Date:**

**National Objective:**

Low/Mod

**Responsible Organization:**

STATE OF CONNECTICUT

**Overall**

**Total Projected Budget from All Sources**

**Jan 1 thru Mar 31, 2021**

\$0.00

**To Date**

\$9,544,000.00

**Total Budget**

\$0.00

\$5,264,000.00

**Total Obligated**

\$2,732.03

\$717,418.87

**Total Funds Drawdown**

\$2,732.03

\$717,418.87

**Program Funds Drawdown**

\$2,732.03

\$717,418.87

**Program Income Drawdown**

\$0.00

\$0.00

**Program Income Received**

\$0.00

\$0.00

**Total Funds Expended**

\$2,732.03

\$717,418.87

STATE OF CONNECTICUT

\$2,732.03

\$717,418.87

**Most Impacted and Distressed Expended**

\$2,732.03

\$587,089.92

**Other Funds**

\$ 0.00

\$ 4,280,000.00

Match Funds

\$ 0.00

\$ 4,280,000.00

Non-Match Funds

\$ 0.00

\$ 0.00

**Other Funds:**

**Overall**

Match Funds

**This Period**

\$ 0.00

**To Date**

\$ 0.00

Department of Economic and Community Development

\$ 0.00

\$ 0.00

**Activity Description:**

Raise University Avenue from Myrtle Avenue to 60 Main Street to serve as a dry egress corridor for the redevelopment of 60 Main Street and other properties.

**Location Description:**

City of Bridgeport's South End

**Activity Progress Narrative:**

Bi-weekly conference call were conducted with CT DOH, CT DOT and the Design Team to coordinate issues and review design status. Field survey and base map preparation was completed. Preparation of subsurface investigation bid documents continued. Horizontal and vertical roadway alignments were progressed for University Avenue, Broad Street and Main Street. Roadway drainage design continued.

Preparation for utility coordination meeting was initiated.

Coordination meetings were conducted with adjacent property owners including the Bassick High School design



team, CT DAS, Goodwin College, The CT Port Authority and CT DOT Office of Rails. Presentations to the Bridgeport Parks Commission were conducted in January and March.

### Accomplishments Performance Measures

	This Report Period	Cumulative Actual Total / Expected
	Total	Total
# of Linear feet of Public	0	0/1310
# of Linear miles of Public	0	0/1

### Beneficiaries Performance Measures

# of Persons	Beneficiaries - Area Benefit Census			
	Low	Mod	Total	Low/Mod
	3240	645	4440	87.50

LMI%:	
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### Activity Locations

No Activity Locations found.

### Other Funding Sources Budgeted - Detail

Match Sources	Amount
Department of Economic and Community Development	\$2,365,000.00
Subtotal Match Sources	\$2,365,000.00
Other Funding Sources	Amount
No Other Funding Sources Found	
Total Other Funding Sources	\$2,365,000.00

Activity Supporting Documents: None

**Project # / NDR-CCRP- / Connecticut Connections Coastal Resilience**



<b>Grantee Activity Number:</b>	<b>NDR-CCCRP-Coastal - 2066131</b>
<b>Activity Title:</b>	<b>Connecticut Connections Coastal Resilience Plan</b>

**Activity Type:**

Planning

**Project Number:**

NDR-CCRP-

**Projected Start Date:**

02/08/2017

**Benefit Type:**

Area Benefit (Census)

**National Objective:**

NA

**Activity Status:**

Under Way

**Project Title:**

Connecticut Connections Coastal Resilience Plan

**Projected End Date:**

09/30/2022

**Completed Activity Actual End Date:**

**Responsible Organization:**

STATE OF CONNECTICUT

<b>Overall</b>	<b>Jan 1 thru Mar 31, 2021</b>	<b>To Date</b>
<b>Total Projected Budget from All Sources</b>	\$0.00	\$27,536,597.00
<b>Total Budget</b>	\$0.00	\$8,989,455.00
<b>Total Obligated</b>	\$966,215.84	\$3,419,040.61
<b>Total Funds Drawdown</b>	\$966,215.84	\$3,419,040.61
<b>Program Funds Drawdown</b>	\$966,215.84	\$3,419,040.61
<b>Program Income Drawdown</b>	\$0.00	\$0.00
<b>Program Income Received</b>	\$0.00	\$0.00
<b>Total Funds Expended</b>	\$966,215.84	\$3,419,040.61
STATE OF CONNECTICUT	\$966,215.84	\$3,419,040.61
<b>Most Impacted and Distressed Expended</b>	\$0.00	\$0.00
<b>Other Funds</b>	\$ 0.00	\$ 18,547,142.00
Match Funds	\$ 0.00	\$ 18,547,142.00
Non-Match Funds	\$ 0.00	\$ 0.00

**Other Funds:**

<b>Overall</b>	<b>This Period</b>	<b>To Date</b>
Match Funds	\$ 0.00	\$ 0.00
Department of Economic and Community Development	\$ 0.00	\$ 0.00
Department of Transportation	\$ 0.00	\$ 0.00

**Activity Description:**

Develop a regional coastal resilience plan covering the MID-URN geography of Fairfield and New Haven Counties including modeling of the future impacts of flooding to critical facilities.

**Location Description:**

All of Fairfield and New Haven Counties

**Activity Progress Narrative:**

During the 1<sup>st</sup> Quarter of 2021, Resilient Connecticut continued to make progress through the advancement of Phase II Planning activities. Draft Climate Change Vulnerability Index and Regional Zones of Shared Risk maps were developed and served as the basis for regional workshops that were held virtually in January and



February. Technical Support Activities focused on further development of nearshore modeling capacity to complement the previously developed FVCOM storm surge mapping. A number of different research studies on heat impacts, transit-oriented development challenges, and legal/policy recommendations, continued to make progress and integrate their results into the Phase II planning process. Engagement primarily focused on COG meetings and committees to update progress and report on results from the regional workshops. The first meeting of the Resilient Connecticut Collaborative, a broad stakeholder advisory group, was held and a summary report is included with this report.

### Planning Activities

In this quarter, Phase II regional planning activities were advanced through development of draft Climate Change Vulnerability Index (CCVI) and regional Zones of Shared Risk (ZSR) maps for Fairfield and New Haven Counties. These initial maps incorporated previous data assembled by the COGs, the CIRCA research team, and the Phase II Consultant Team, and served as the basis for 4 regional workshops that were held in January and February of 2021. See Appendix A for a summary report on the workshops. Following feedback from the regional workshops, draft map viewers for flooding and heat vulnerabilities in Fairfield and New Haven Counties, were prepared. Social Vulnerability Maps for the two counties were also prepared. The team is now conducting analysis using the flooding and heat CCVIs, as guidance to prioritize regional zones of shared risk and resilience opportunity locations that will be presented at the next set of regional workshops planned for May 2021. A quarterly meeting of the SAFR State Agency Workgroup was held on March 26<sup>th</sup> that included an update on the findings from the regional workshops, as well as progress on Resilient Connecticut capacity building research focused on flood risks to transit oriented development along the Metro North corridor.

### Technical Supporting Activities

The research team finished the nearshore modeling effort for Branford, Norwalk, and New Haven. The nearshore model uses the boundary conditions from the Long Island Sound FVCOM model and integrates them into a 2m resolution FUNWAVE model to obtain total water elevation that shows the wave run-up and storm surge levels. The validation of the model results with USGS high watermarks during the Super Storm Sandy and with ADCP results from 2015-2016 storms are completed and showed under 10% difference. The model results of 1% AEP storm were compared with FEMA base flood elevation and NACCS flood levels. FUNWAVE comparison showed that the FEMA suggested BFE maps overestimate the total water elevation, especially predict wave run-up with considerable disagreement with FUNWAVE due to its simplistic approach. NACCS and FVCOM models are better at predicting offshore wave heights and surge levels than run-up and overtopping waves along the shoreline. Compared to the FVCOM-SWAVE, NACCS, and FEMA inundation maps and base flood elevations, the FUNWAVE-TVD models wave processes more accurately in shallow water regions. The simulation results are available on the Resilient Connecticut Technical Supporting Activities website here:

<https://resilientconnecticut.uconn.edu/resources/datasets/resources-datasets-connecticut-nearshore-model-dataset/>

The team prepared a journal article and submitted it to Coastal Engineering for peer review. The nearshore modeling continues the comparisons in Fairfield and East Haven. Fairfield model results are compared with real-time observations obtained from the town and showed similar results with errors ranging 10-15%. The team is working on the New Haven-East Shore Morris Cove and Tweed Airport area nearshore modeling and creating different flood restriction scenario designs to limit the flooding extent.

We also completed fieldwork at the Guilford marsh area for a total of six-level logger pressure sensors in the tidal channels of the Great Harbor marsh system to collect sea level and current velocity measurements for use in modeling verification and validation within a coastal marsh. We concluded this validation and the modeling of the marsh system. We are working on writing the implications on the verification and the model results.

### Capacity Building Activities

The capacity-building activities summarized this quarter are hydrology, heat, transit-oriented development, and legal/policy research. The hydrology team focused on extreme and annual maximum riverine flooding in different impervious areas and prepared inundation maps. The heat team focused on studying data from the period between January 1, 2014, to December 31, 2019. The data outputs for this phase were: emissivity, NDVI (Normalized Difference Vegetation Index), and three (3) land surface temperature images: maximum, minimum, and mean. The transit-oriented development team analyzed the potential effects of sea-level rise on TOD efforts along the Metro-North New Haven mainline. Of the 20 stations along the line, 14 have studied potential TOD development around their stations. They completed the IRB process and started targeted interviews with stakeholders to document barriers to TOD development. The legal team focused on researching climate initiatives in neighboring states and has completed an initial assessment that will guide their research going forward.

### Engagement

Ongoing engagement with stakeholders across the 4 COG regions in Fairfield and New Haven Counties continued in this quarter, with the assistance of COG staff and the Consultant Team. Team members provided monthly updates to COG board meetings, as well as various Transportation, Regional Planning, and Technical Advisory Committees that represent and include membership of communities across the two counties. The first set of Phase II regional workshops was held virtually in 4 COG regions in January and February. A website with links to workshop recordings and agendas can be found at: <https://resilientconnecticut.uconn.edu/workshops-in-four-cog-regions-winter-2021/> on the Resilient Connecticut Website. See the attached Appendix A report for a full summary of findings resulting from the regional workshops. A follow up webinar was held on March 23<sup>rd</sup> to

summarize the incorporation of participant feedback into the Phase II flood vulnerability mapping, as well as provide updates on heat and wind vulnerability mapping. A recoding of the webinar can be found at: <https://resilientconnecticut.uconn.edu/2021/03/03/climate-change-vulnerability-index-webinar-progress-and-new-results-for-heat-and-wind/> on the Resilient Connecticut website. A Storymap outlining the Phase II planning process for stakeholders was developed and released following the workshops: <https://mminc.maps.arcgis.com/apps/MapSeries/index.html?appid=c700755a764e421596f9fa3719ea5262&folderid=f47a498583604f3f9601ce1de67f7407>. The Storymap contains links to the Task 3 planning inventory of previously identified resilience projects and actions, as well as links to draft CCVI and ZSR map viewers, and provides different opportunities to inform the Phase II planning process. Also in January, the first meeting of the Resilient Connecticut Collaborative (RCC) was held. The RCC functions as a broad stakeholder advisory group and serves the role of “citizen advisory group” for the Phase II planning process. A summary report of the first meeting has been developed and is included as Appendix B.

Appendix A – Phase II Regional Workshop Series 1 – Summary Report  
 Appendix B – Resilient Connecticut Collaborative Meeting #1 Report

## Accomplishments Performance Measures

	This Report Period	Cumulative Actual Total / Expected
	Total	Total
# of Plans or Planning Products	0	0/1
# of community engagement	0	6/15

## Beneficiaries Performance Measures

	Beneficiaries - Area Benefit Census			
	Low	Mod	Total	Low/Mod
# of Persons	460395	280398	1802207	41.10

LMI%:	
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## Activity Locations

No Activity Locations found.

## Other Funding Sources Budgeted - Detail

Match Sources	Amount
Department of Economic and Community Development	\$30,350,000.00
Department of Transportation	\$81,400,000.00
Subtotal Match Sources	\$111,750,000.00
Other Funding Sources	Amount
No Other Funding Sources Found	
Total Other Funding Sources	\$111,750,000.00

Activity Supporting Documents: None

