

**Cumberland County Community Development Program  
2019 Pre-Application  
Due December 12, 2018**

Application Type:     General     Public Service     Planning  
Project Name: Harpswell Resilience Planning for Sea Level Rise

Lead Community: Harpswell, ME

Additional Communities: \_\_\_\_\_

Subrecipient Organization: \_\_\_\_\_ To address these risks, Harpswell's Selectmen will create a seven to ten-member Climate Resilience Taskforce (CRT) recruited from the Town's staff, Town committee members, the business and fish

Project Location (Address): Town of Harpswell, ME

Contact Information: Name: Terri Lynn Sawyer    Email: tsawyer@town.harpswell.me.us  
Phone: 207-833-5771    Title: Deputy Town Administrator

**Project Summary:**

The Town of Harpswell has 4893 residents and an annual budget of \$5,221,745. Adapting our coastal infrastructure to mitigate sea level rise will not be a cheap or easy process. A recently completed pilot project to assess the flooding risks on one major town road included an estimate of \$1 million + dollars to fix. The Town needs to draw up a ten-year plan to identify risks, prioritize addressing them and figure out how to raise the funds needed to do so by creating a Climate Resilience Taskforce (CRT) and engaging a municipal planning consultant who together will use the Maine Flood Resilience Checklist to evaluate the Town's vulnerability to flood hazards, increase resilience, and develop a mitigation plan. Information gathered will be integrated into the Town's Comprehensive Plan, used to update existing ordinances and incorporate resilience activities into future capital improvement plans and budgets.

HUD National Objective:    Benefit Low/Mod Clientele     Low/Mod Area Benefit     Spot Slum and Blight

HUD Program Objective:    Suitable Living Environment     Decent Housing     Economic Opportunity

Project Goal:     Affordable Housing     Public Facility Improvements     Public Infrastructure Improvements  
                   Public Services     Economic Development     Community Planning

Total Clients Served (unduplicated): Town Population    Percentage LMI: 35.91%

Funding: CDBG Request: \$ 7,160.00    Total Project Cost: \$ 11,180.00

**Leveraged Funds:**

\$	Federal	\$	Other grants
\$	State	\$	Endowment
\$	County (not CDBG)	\$	Private Funds
\$	City	\$5,870.00	Gifts in kind

Name of Authorized Official: *Rick Duval*

Signature of Authorized Official: *Rick Duval*

**1. Describe the community problem or needs you wish to address with Community Planning funds.**

**a. Describe the scope, magnitude, and severity of the problem.**

The Town of Harpswell has 216 miles of coastline with 20% of the land within 250 feet of the water. Extreme annual weather events – flooding, high annual tides, storm surge, high winds and heavy rains – are impacting our roads, homes, potable water, fishing infrastructure and coastal marshes. The sea level is expected to continue to rise rapidly in Casco Bay, dramatically impacting our community.

The Town of Harpswell has 4893 residents and an annual budget of \$5,221,745. Adapting our coastal infrastructure to remove it from risk or make it resilient to flooding will not be a cheap or easy process. The results from a recently completed pilot project to assess the flooding risks on one major town road included an estimate of over \$1 million dollars to mitigate that risk. The Town recognizes the need to draw up a ten-year plan to identify risks, prioritize addressing them and figure out how to raise the funds needed to do so.

**b. Describe past efforts, if any, to address the problem.**

In 2010, the Harpswell Conservation Commission (HCC) began work on the impact of climate change with assistance from Bowdoin College and from the Casco Bay Estuary Partnership (CBEP), which provided the first maps of the impact of SLR on Harpswell.

In 2015, the Town of Harpswell worked with Midcoast Council of Government (MCOG) to study the impact of sea level rise (SLR) and storm surge. (See Map in Visual Aid 1.) The study found that 16 public roads would be negatively impacted by one to six-foot SLR, five of which are already affected at one foot and eight of which will be impacted at two feet. 80% of the town's roads are privately held and 12 of these are at risk with implications for the citizens dependent on them (See Road Chart in Visual Aid 2). SLR will also impact homes and septic systems, affect emergency preparedness systems and necessitate revisions of our building codes and other ordinances.

Using these initial studies, in 2017 the Town applied for and received a Coastal Communities Grant to assess how to deal with the potential flooding of Basin Point Road, a major public road that provides access to over a hundred homes and one of the town's largest commercial enterprises. The Town's engineering firm developed three alternative options: 1) do nothing with the high risk of the road collapsing or going underwater; 2) raise the road 3.3 feet at a cost of \$691,000 or 3) raise the road 6 feet at a cost of \$1.378 million. The cost estimates for mitigating SLR on a single at-risk road have been eye-opening.

**c. Does the problem have specific impacts on low/moderate income households or low/moderate income neighborhoods?**

Yes. According to US Census Data, 20% of the town's households with children between the ages of 5 and 17 live below the poverty level and 67% of female headed

households with children do. About 15% of people over 75 are also low income. The Cumberland County CDBG Distress Scores rank 1,740 of Harpswell's residents as low to moderate income, 35.91% of the Town's population. These residents have limited resources to pay increased taxes or to repair their private roads, their homes and their septic systems in response to SLR and storm events. Harpswell has long been committed to keeping property taxes low enough so that low to moderate income people can continue to live here and to protect those who make their living on the water.

**d. Why are CDBG funds critical to the planning activity's success?**

Research done by the Town has demonstrated that addressing sea level rise will be expensive in terms of planning, engineering and execution. A plan to address SLR must involve more than roads and needs to be addressed holistically to assure that the Town's limited resources are used to address the most important issues and that the environmental implications of mitigation are fully considered. The Town of Harpswell wants to enlist the assistance of a municipal planner familiar with the Town to help develop a Ten-Year Climate Resilience Plan that identifies SLR affected infrastructure and prioritizes the work that must be done to mitigate or adapt to changing conditions. The Plan will serve as a roadmap for the steps the Town needs to take to develop solutions to the problems identified and to figure out how to cover the costs. Funds for the project are not included in the 2019 budget. The grant will allow the Town to start critical planning this year.

**2. What is the strategy to complete the planning project?**

**a) Describe the Planning Tasks to be Undertaken**

**The tasks envisioned consist of three components:**

- i. Assess the potential impact of various levels of sea level rise on the full range of municipal and community facilities, using the Maine Flood Resilience Checklist (MFRC) developed in 2017 by the Maine Department of Agriculture, Conservation and Forestry's Maine Coastal Program and available mapping from previous studies of potential levels of inundation;
- ii. Identify priorities for the facilities/areas that need immediate attention using the assessment; and
- iii. Prepare a ten-year work plan for conducting the needed research, engineering and planning to develop approaches for dealing with the highest priority facilities/areas and to propose funding mechanisms.

To address these tasks, Harpswell's Selectboard will create a seven to ten-member Climate Resilience Taskforce (CRT) recruited from the Town's staff, Town committee members, the business and fishing communities, the local land trust and owners of commercial wharves on the working waterfront. A municipal planning consultant (MPC) will be engaged to work with the CRT. The consultant and the CRT will use the Maine Flood Resilience Checklist, a self-assessment tool for Maine's coastal communities to evaluate the Town's vulnerability to flood hazards to all kinds, to increase resilience, and to develop a mitigation plan. Information gathered from this process will be integrated into the Town's Comprehensive Plan, used to update existing ordinances and

incorporate resilience activities into future capital improvement plans and budgets. A key outcome will be the creation of a taskforce, representative of the community, that will identify needed interventions, prioritize each and plan how to raise and allocate the funds needed over the next decade to mitigate damage. The HCC will provide coordination and organization of this process in collaboration with the Municipal Planning Consultant. The Casco Bay Estuary Partnership (CBEP) has offered to provide in-kind technical support on the ecological considerations of coastal resilience to the project.

**b) Outline the project's schedule.**

Harpswell Resilience Planning for Sea Level Rise Project will take place over 12 months. See the attached Implementation Schedule for activity details by quarter.

**c) Are community partnerships established and engaged in the project?**

Key community partners will be invited to participate, including the Harpswell Business Association, Harpswell Heritage Land Trust (HHLT), local road associations, Casco Bay Estuary Partnership and the Midcoast Economic Development District (MCEDD), which provides guidance and assistance to businesses and communities to stimulate the regional economy, spur job creation and engage in municipal planning. The Town of Harpswell has worked closely in the past ten years with HHLT, Casco Bay Estuary Partnership and MCEDD.

**3. Convey your community's readiness to proceed.**

**a) How has the project been conveyed to community residents?**

The Harpswell Conservation Commission has carried out annual public workshops to discuss the impact of SLR in Harpswell, including information about the need to create official road associations to manage repairs on private roads; how best to incorporate SLR considerations when replacing culverts; and how to insure emergency access to homes. HCC has also published frequent articles in the local newspaper about SLR. Town Selectboard and staff have reviewed the project and are committed. Outreach will continue to solicit input from townspeople

**b) Are matching funds available for the project?**

In kind support will come from contributed town staff hours, town committees and CBEP. See budget and notes.

**c) Are staff and/or consultants available to complete the project?**

Yes. Town Staff, including the Codes Enforcement Officer, Fire and Emergency Management Administrator, Harbormaster, Road Commissioner, Town Administrator and Deputy Town Administrator are available to participate in the Climate Resilience Taskforce. Members of the Town's Committees, including the Planning Board, Conservation Commission, Town Lands, Energy & Technology, and Marine Resources Committees, will be invited to participate on the Taskforce as well. See Budget and Notes for more detail.

## Project Implementation Schedule

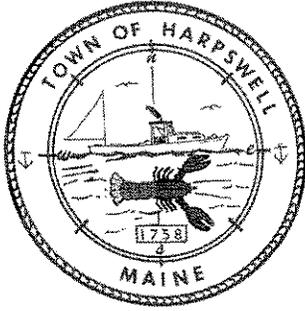
<b>Activity</b>	<b>Q #1 J – S 2019</b>	<b>Q #2 O – D 2019</b>	<b>Q #3 J – M 2020</b>	<b>Q #4 A – J 2020</b>
Town Selectboard appoint Climate Resilience Taskforce (CRT) based on recommendations from HCC. Town Administrator engages municipal planning consultant. Consultant begins initial planning, calls together initial meeting of CRT at which any other participants deemed necessary are invited to join.	X			
MPC schedules meetings and site visits, plans workshops with assistance from CRT and HCC and posts periodic updates on planning process on town website.	X	X	X	X
CRT with MPC review Maine Flood Resilience Checklist (MFRC), seek input from their committees & evaluate relevant sections. Newspaper and/or TV announcements made to inform public of process underway.	X			
CRT & MPC review taskforce inputs and conduct site visits as needed to better analyze infrastructure at risk.		X		
CRT & MPC develop criteria for prioritizing needs identified; establish priorities; determine next actions needed with input from Casco Bay Estuary Partnership (CBEP).		X		
CRT & MPC finalize recommendations for action, timing of each action & process by which costs will be established for each action needed.			X	
MPC drafts Harpswell's Ten-Year Climate Resilience Plan based on recommendations. Draft plan posted on town website end of quarter.			X	
MPC & CRT solicit feedback on draft from key town staff & town committees. MPC revises plan based on feedback.			X	
Harpswell Conservation Commission (HCC) organizes public forum to share plan & solicit community feedback/buy-in.				X
MPC prepares final version based on inputs.				X
HCC organizes public workshop to review Ten-Year Climate Resilience Plan with Town's Selectboard & to discuss next steps needed to implement.				X
<b>Project Completed:</b>				X

**Planning Grant – Program Budget**

<b>Cost Category</b>	<b>CDBG Funds</b>	<b>Municipal Funds</b>	<b>Other Funds</b>	<b>Total</b>
<b>Consultant Services</b>	\$4,410			\$4,410
<b>Advertising</b>	\$1,500			\$1,500
<b>Public Meetings</b>	\$ 250			\$ 250
<b>Printing</b>	\$ 700			\$ 700
<b>Mailings</b>	\$ 300			\$ 300
<b>Other: In-Kind</b>				
<b>1. Town Staff</b>			\$4,200	\$4,200
<b>2. HCC Coordinator</b>			\$1,050	\$1,050
<b>3. Dep Town Administrator</b>			\$ 620	\$ 620
<b>4. CBEP</b>				
<b>Total Costs</b>	<b>\$7,160</b>		<b>\$5,870</b>	<b>\$13,030</b>

**Provide the basis for determination of budget amounts:**

Consultant Services: Preparation of materials & participant identification - 12 hrs. Facilitating meetings and site reviews -36 hrs., Draft plan, solicit feedback and incorporate into final plan 15 hrs.= 63 hrs. @\$70 per hr.  
Advertising: 3 local newspapers beginning & mid project @\$750. 2 public meetings set-up & refreshments @ \$125. Printing: Final report & large maps; Outreach mailings: participants & affected citizens \$300  
Town Administrators: 5 participants x 10 meetings @ 3 hrs. each = 150 hours @ aver \$28 per hr.; HCC Coordinator, clerical administration & organize 2 public meeting 50 hrs. @\$21 per hr. Deputy Town Administrator - Financial admin of grant.20 hrs. @\$31 per hr.



# Town of Harpswell

P.O. Box 39

Harpswell, ME 04079

January 24, 2019

Cumberland County Community  
Development Block Grant Program  
Kristin Styles, Director  
142 Federal St., Suite 100  
Portland, ME 04101

Dear Ms. Styles,

The Board of Selectmen supports the Harpswell Conservation Commission's efforts to address sea level rise within Town. In 2018, the Town received a Coastal Communities grant and was able to conduct a study on Basin Point, a Town road that is already being affected by the tides and could be significantly impacted by future rising of sea levels. This study helped us realize that we need to identify our risks Town-wide and develop a comprehensive plan to prioritize addressing the risks. Please accept this letter in support of the Town's grant application for planning funds for the 'Harpswell Resilience Planning for Sea Level Rise Project'.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard A. Daniel".

Richard A. Daniel, Selectmen Chair

A handwritten signature in black ink, appearing to read "Kevin E. Johnson".

Kevin E. Johnson, Selectman

David I. Chipman, Selectman

A handwritten signature in black ink, appearing to read "David I. Chipman".



January 29, 2019

Kristin Styles, Director  
Cumberland County Community Development  
142 Federal St., Suite 102  
Portland, ME 04101

Dear Ms. Styles:

On behalf of the Casco Bay Estuary Partnership (CBEP), I am writing to express strong support for the Town of Harpswell's proposal to the Cumberland County Community Development Grants Program for the *Harpswell Resilience Planning for Sea Level Rise* project. The proposed project will provide the town with additional capacity to build upon and expand recent climate resilience planning efforts.

CBEP is one of 28 National Estuary Programs established under Section 320 of the Clean Water Act and funded through EPA. CBEP's mission is to protect and restore the water quality, and fish and wildlife habitat of Casco Bay, while ensuring compatible human uses. Our strategic plan, the *2016 Casco Bay Plan*, emphasizes the importance of helping communities to prepare for climate change impacts and resulting economic, cultural and ecological disruptions. The *Plan* calls for CBEP to provide support for fostering climate preparedness among local decision makers, promoting climate adaptation best practices that incorporate sound climate science, and restoring coastal habitats that are important to sustaining the health of Casco Bay. The proposed project will advance all of these strategies.

Harpswell's shoreline comprises approximately a third of Casco Bay's coast. The Town's network of public and private roads, which cross long narrow peninsulas, islands, and embayments, is particularly vulnerable. Many roads were built alongside low-lying salt marshes, coastal streams, and mudflats, and consequently, dozens of areas are at risk of flooding resulting from sea level rise and storm surge. Despite having limited staff capacity to address these threats, the Town is a leader in climate resilience planning. The Town's comprehensive approach to site-specific resilience planning at Basin Point Road provides many insights which will feed directly into this proposed project.

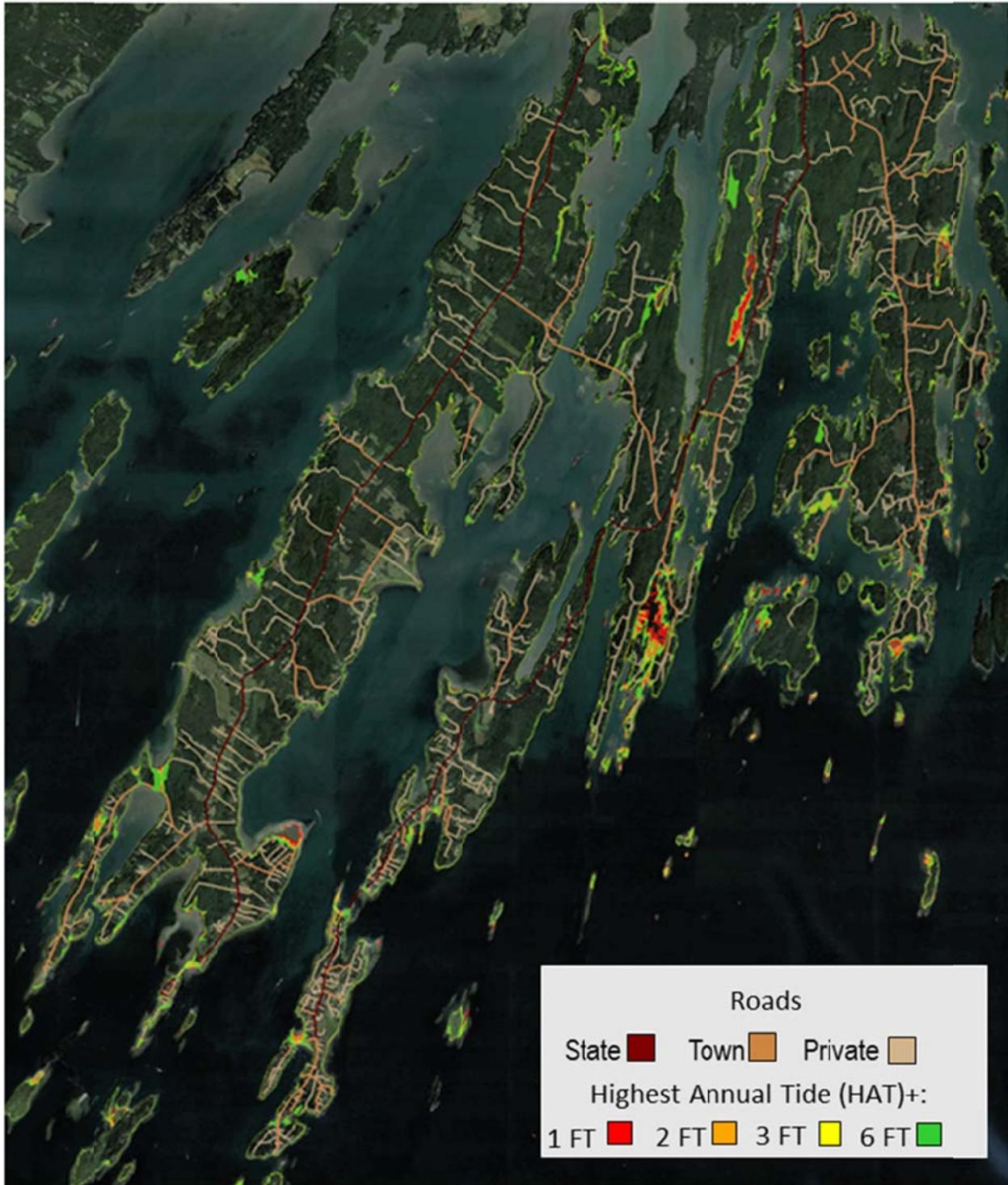
In addition to providing Harpswell with a process for developing strategic priorities for addressing threats posed by rising seas, the resulting 10-year plan will serve as a model from which adjacent communities in Casco Bay and Midcoast Maine are likely to borrow and learn from. CBEP has offered to provide the Town with in-kind technical assistance on this project due to its alignment with priorities described in the *Casco Bay Plan* and high likelihood of success.

Sincerely,

A handwritten signature in black ink that reads "Matthew G. Craig".

Matthew G. Craig  
Habitat Program Manager

# Harpswell Roads Affected by Rising Tides



## PREPARING FOR COASTAL FLOODING IN HARPSWELL

### Harpswell Roads Affected by 1, 2, 3.3 and 6-foot Rising Tides

Private Roads	1 foot	2 feet	3.3 feet	6 feet
<b>Harpswell Neck:</b>				
High Head Road - Bridge		X	X	X
Elucamo Drive (Lower end)			X	X
Interhaven Road				X
<b>Great Island:</b>				
Little Crow Point Road	X	X	X	X
Long Reach Lane (each end of easeway)	X	X	X	X
Tuttle Drive off Long Point Rd.		X	X	X
Gun Point Road (near intersection with Long Point Road)			X	X
<b>East Harpswell/Cundy's Harbor</b>				
Wallace Shore Road (both before and after bridge)	X	X	X	X
Shore Road		X	X	X
Hopkins Island Road			X	X
Cundy's Point Road				X
Sailor's Way				X
<b>Orr's and Bailey Island:</b>				
Johnson Point Road - Orr's Island				X

Public Roads	1 foot	2 feet	3.3 feet	6 feet
<b>Harpswell Neck:</b>				
Basin Point Road - at head of Basin Cove	X	X	X	X
Lookout Point Road (Lower End)	X	X	X	X
Windsor Lane (Stover's Point Area)	X	X	X	X
Route 123 - Bridge/Potts Point Road			X	X
Harpswell Neck Rd. Rte. 123 - Skofield Cove, Near Open Line			X	X
<b>Great Island:</b>				
Long Point Road - Near intersection with Little Crow Point	X	X	X	X
Long Point Road - Near intersection with Dingo Lane			X	X
<b>East Harpswell/Cundy's Harbor</b>				
Dingley Island Road - Bridge		X	X	X
Bethel Point Road - Bridge		X	X	X
Dalhurst Island Road - Bridge		X	X	X
Bethel Point Road - Culvert near Little Ponds Road				X
<b>Orr's and Bailey Island:</b>				
Lowell's Cove Rd. - Orr's Island	X	X	X	X
Rbner Point Rd./Lube Ln. - Bailey Island		X	X	X
Harpswell Islands Road (Rte. 24) - Beginning and end of Crystone Bridge		X	X	X
Garfison Cove Rd. (head of cove)			X	X
Bridge between Great & Orr's Islands, at Edge Bluff - Harpswell Islands Rd (Rte. 24)				X

HCC\_Updated 1.12.19

HCC\_CDBG 1.15.19