

Paths and Piers:

A Study of Commercial Fishing Access in Downeast Maine Coastal Communities



**A report by Sunrise County Economic Council
for
The Maine Coastal Program**

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--CJS

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**A report by
Sunrise County Economic Council submitted to the Maine State Planning Office
and the Maine Coastal Program**

January, 2003

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Written by: Christopher Spruce

*Cover Photo: A view of Bucks Harbor from the new municipal pier in Machiasport, Maine.
Photo by Christopher Spruce*

Sunrise County Economic Council mission statement: The Sunrise County Economic Council (SCEC) identifies, initiates, and supports activities that will improve Washington County's economy.



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Executive summary

The trend of non-resident seasonal users acquiring historically locally-owned private coastal property is no longer a phenomenon that is confined to the mid-coast and southern coastal areas of Maine. The trend has found its way to Washington County, an area of the state known more for the ingenuity of its citizens in fashioning ways to carve out a living in a traditionally economically-challenged region than as a haven for summer residents desiring to own expensive coastal properties.

With the phenomenon of coastal property transfers from local to non-resident ownership come some unwelcomed side effects. One is rising state valuations for small coastal communities—valuations which impact school subsidies and other programs that provide much-needed state revenues to these communities. Another is loss of traditional public access over private property, particularly for clam harvesters and other commercial fishermen who for years may have enjoyed informal, but unfettered access to the waterfront over these properties only to have new owners close them off. The loss of access to the ocean or the threat of loss of access are reoccurring themes in Downeast coastal communities who were part of this study.

This study is an attempt to establish a baseline of data on waterfront access that will be used to track changes in access in the years ahead. The study grew out of two distinct but related initiatives. The first is the Downeast Coastal Access Initiative, a project of the Sunrise County Economic Council (SCEC), funded by the C.F. Adams Foundation. The second impetus for the study was the Maine State Planning Office-sponsored study of coastal access in 25 Maine waterfront communities, conducted by Coastal Enterprises Inc. (CEI). The results of this statewide study were published in December 2002 by CEI and the State Planning Office's Coastal Program in a report titled, "Preserving Commercial Fishing Access: A Study of Working Waterfronts in 25 Maine Communities."

This study, also funded in part by the Coastal Program at the State Planning Office, attempts to replicate the statewide study conducted by CEI, but focuses only on 23 Downeast coastal communities from Winter Harbor to Calais. Nearly identical survey instruments were used in both studies and similar data was collected and analyzed for both reports. Although the findings of the two reports differ somewhat, both reports underscore the need for ongoing tracking of commercial waterfront access the length and the breadth of the Maine coast.

Findings

The 23 communities that are described in this study represent the following:

- 1,242 miles of coastline
- 2,674 commercial fish harvesters
- 25,845 coastal residents
- 4.5% average decline in population between 1990 and 2000
- 11% average increase in housing units between 1990 and 2000
- 1,604 total current boat access (berths+moorings+slips+tie-ups)
- 76% of the total current boat access in use is dedicated to commercial fishing

- On average, commercial fishermen represent just over 10% of each of the 23 communities' total population.

- Most Downeast towns have comprehensive plans (81%) in place, but very few have enacted local zoning ordinances (14%) that would address how their waterfronts are used.

- Although nearly a quarter of the other coastal communities surveyed by CEI indicated they used “exclusive zoning” for their waterfronts, not a single Downeast community has adopted such a restrictive waterfront measure.

- Two of the three Downeast communities that have waterfront zoning ordinances in place still believe access to the waterfront for local fishermen is a problem.

- Just over half of the communities we surveyed indicated that they were working on, or planning to initiate some activity, that would enhance or shore up access for commercial fishing. More than half of those communities (57%) were focusing on improving waterfront infrastructure.

- Forty-four percent of the Downeast communities surveyed had applied for funding under the Small Harbor Improvement Program (SHIP), with 35% of those communities having actually received support from the SHIP program for their waterfront projects.

- Only 7 (30%) of the 23 communities list access for commercial fishermen as a current problem.

- Deterioration of infrastructure (wharves and piers) ranked higher (36%) in the current threats tallies than it did the future threats category (28%). “Development pressures” ranked high in both current and future threats (44% and 52%, respectively), while higher taxes also was shown to be a significant concern in both current and future threat assessments (44% in both).

- A clear majority of communities believe access will stay the same in the future, but that majority narrows the further into the future one predicts.
- Nearly two-thirds (61%) of the 23 Downeast coastal communities surveyed were addressing now or planning to address commercial fishing access in the future.
- Only 40% of communities surveyed thought a low-interest loan fund would help commercial fishermen address the access problems. Nearly one-third (32%) of communities surveyed did not think such a fund was applicable to the access issues that exist in their communities.
- Almost three-quarters of all communities surveyed ranked property tax relief as the most desired approach to helping them address waterfront access issues; 70% answered that planning assistance was also needed.

Recommendations

- Now that a baseline of data on commercial fishing access has been developed for Downeast communities, regular updates of this data should be undertaken.
- Harbor masters across the region, as well as other municipal officials with an interest in waterfront access, should be asked to join with the organizations that sponsored this study to continue efforts to track changes in commercial fishing access in the future.
- The Maine Department of Transportation's Small Harbor Improvement Program should be refunded in the department's general transportation bond issue to be presented to voters in November 2003.
- Downeast coastal communities are frequently in need of planning and other technical assistance in addressing waterfront access issues. The Sunrise County Economic Council, Coastal Enterprises Inc., the Eastern Maine Development Corporation and the Maine State Planning Office's Coastal Program, in cooperation with the Maine Department of Marine Resources, the Maine Department of Conservation and the Maine Department of Transportation, should collectively continue their efforts to direct resources toward resolving waterfront access issues on the Downeast coast.
- The organizations listed above should also encourage a variety of partnerships to address commercial fishing access issues Downeast.
- Finally, the organizations that were party to this study should work with coastal realtors to assist them in educating prospective coastal property buyers about the history and importance of commercial fishing access on the Maine coast.

Paths and Piers: A Study of Commercial Fishing Access in Downeast Maine Coastal Communities

INTRODUCTION

The trend of non-resident seasonal users acquiring historically locally-owned private coastal property is no longer a phenomenon that is confined to the Mid- and Southern coastal areas of Maine. The trend has found its way to Washington County, an area of the state known more for the ingenuity of its citizens in fashioning ways to carve out a living in a traditionally economically-challenged region than as a haven for summer residents desiring to own expensive coastal properties. A recent advertisement in one of the local Washington County newspapers was demonstrative of the presence of the phenomenon Downeast. In the ad, the realtor welcomed 12 individuals or couples who “purchased property in your neighborhood this fall.” All but one of the 12 were non-residents. Of the 12 properties purchased, 6 were described as “waterfront parcels” and one was listed as a “waterfront home.” The purchasers hailed from such locales as San Diego, CA, Boston, Lynn and Concord, MA, Boca Grande, FL and Ithaca, NY.

There is, of course, nothing wrong with folks “from away” wanting to experience life Downeast. After all, some would argue that there is both meaning and intent in the “Vacationland” slogan displayed on most Maine license plates. However, with the phenomenon of coastal property transfers from local to non-resident ownership come some unwelcomed side effects. One is rising state valuations for small coastal communities—valuations which impact school subsidies and other programs that provide much-needed state revenues to these communities. Another is loss of traditional public access over private property, particularly for clam diggers and other commercial fishermen who for years may have enjoyed informal, but unfettered access to the waterfront over these properties only to have new owners close them off. The loss of access to the ocean or the threats of loss of access are reoccurring themes in Downeast coastal communities who were part of this study.

This study is an attempt to establish a baseline of data on waterfront access that will be used to track changes in access in the years ahead. The study grew out of two distinct but related initiatives. The first is the Downeast Coastal Access Initiative, a project of the Sunrise County Economic Council (SCEC), funded by the C. F. Adams Foundation. This initiative was launched in response to concerns about the continued erosion of waterfront access for commercial fishermen in Downeast coastal communities stretching from Winter Harbor in eastern Hancock County to Calais in northeastern Washington County. At a meeting introducing the initiative in July 2002, several participants recommended

that the Initiative attempt to inventory the current commercial fishing access on the Downeast coast.

The second impetus for the study was the Maine State Planning Office-sponsored study of coastal access in 25 Maine waterfront communities, conducted by Coastal Enterprises Inc. (CEI). The results of this statewide study were published in December 2002 by CEI and the State Planning Office's Coastal Program in a report titled, "Preserving Commercial Fishing Access: A Study of Working Waterfronts in 25 Maine Communities." That study was the direct result of a Maine State Legislative Task Force convened in the fall of 2001 to evaluate the nature of the threat to commercial fishing access along the Maine coast. Although the task force heard testimony that indicated the threats to commercial fishing access were many and varied, the panel concluded the State needed to undertake a systematic review of current commercial fishing access. This assessment would provide the data necessary to formulate policies to address the issue and to establish a baseline that would be used to track changes in coastal access in the future. The Task Force recommended that State Planning Office (SPO) endeavor to assess the current conditions and threats to commercial fishing access. The SPO subsequently contracted with CEI to undertake the research project on its behalf.

This study, also funded in part by the Coastal Program at the State Planning Office, attempts to replicate the statewide study conducted by CEI, but focuses only on 23 Downeast coastal communities from Winter Harbor to Calais. Nearly identical survey instruments were used in both studies and similar data was collected and analyzed for both reports. Although the findings of the two reports differ somewhat, both reports underscore the need for ongoing tracking of commercial waterfront access the length and the breadth of the Maine coast.

As was the case in the CEI study, this study reviewed two previous studies and databases on waterfront facilities. SCEC also interviewed one to three representatives from each Downeast coastal community¹ who could answer the survey questions and provide information about that community's commercial fishing facilities and other access points. Many of those interviewed were harbormasters or selectmen who were also fishermen and had been officially or unofficially designated as the board member whose focus was waterfront issues. Secondary data also was collected and analyzed in an effort to provide context for the commercial waterfront access trends in Downeast coastal communities as well as to try to determine the immediacy of the threats inherent in those trends to each of the waterfront-dependent communities.

This report is organized into the following sections: *Executive Summary*, which briefly outlines the reports findings and recommendations; *Methodology*, which describes how the study was done; *Data Analysis*, which examines the study's findings in some detail; *Town Profiles*, which presents a summary of statistics and issues for each surveyed community; and *Conclusions*, a final section that more fully discusses the findings and

¹ SCEC staff did not gather the data for the 5 Downeast communities that participated in the CEI study – Winter Harbor, Addison, Jonesport, Machiasport and Eastport –but rather incorporated CEI's findings in this report with the 18 other Downeast communities identified as being waterfront-dependent.

recommendations. The report includes various tables to help illustrate key findings and appendices to provide additional information on how the report was developed.

METHODOLOGY

The communities

Unlike the CEI study, which collected data from a sample of 25 of the state's approximately 75 coastal communities, this study endeavored to capture coastal access information for the 23 Downeast communities that were identified as waterfront-dependent. In addition to the 5 Downeast communities included in the CEI study (Eastport, Machiasport, Jonesport, Addison and Winter Harbor), this study includes the towns of Gouldsboro in Hancock County and the Washington County communities of Calais, Robbinston, Edmunds and Trescott Townships, Perry, Pembroke, Whiting, Lubec, Cutler, East Machias, Machias, Jonesboro, Beals Island, Roque Bluffs, Harrington, Milbridge, and Steuben. We should note that 36 of Washington County's 45 municipalities are home to individuals with commercial fishing licenses, according to the 2002 records of the Maine Department of Marine Resources. But the 23 that are subject to this study have public or private infrastructure that is used by commercial fishermen or, which by virtue of where they are situated on the coast, would be likely to provide such infrastructure in the future. We initially intended to include the communities of Dennysville, Columbia Falls, and Cherryfield in the study, but discovered that these towns, while being home to significant numbers of commercial fishermen, do not have any access infrastructure currently being used by those fishermen. The commercial fishermen in these communities generally access the ocean by way of waterfront facilities in neighboring towns, according to town officials with whom we spoke.

The 23 communities that are described in this study represent the following:

- 1,242 miles of coastline
- 2,674 commercial fish harvesters
- 25,845 coastal residents
- 4.5% average decline in population between 1990 and 2000
- 11% average increase in housing units between 1990 and 2000
- 1,604 total current boat access (berths+moorings+slips+tie-ups)
- 76% of the total current boat access in use is dedicated to commercial fishing

Previous studies

Both this study and the CEI statewide study reviewed two previous studies on waterfront facilities in an effort to determine if a baseline of data on commercial waterfront access could be established and then tracked in the new studies. These studies were, respectively, "Maine Port Development Study," conducted by the Maine Department of Transportation in 1985, and, "Maine Port Facilities Inventory and Analysis," conducted by the Southern Maine Economic Development District and the Eastern Maine development Corporation in 1998 for the Maine Department of Marine Resources.

However, while both studies included much good information, that information could not be fashioned into a reliable baseline, in part because the data were not always comparable. Nevertheless, both of these studies were important in identifying the data we needed to collect and in formulating the questions that needed to be answered in our studies. Additionally, we reviewed three other reports: The State Planning Office's "Coastal Access Priority Areas for Boating and Fishing" (2000); the "Final Report of the Committee to Study Commercial Fishing Waterfront Access and Other Economic Development Issues Affecting Commercial Fishing" (December 2001); and "Fishing, Farming and Forestry: Resources for the Future" (Maine State Planning Office, March 2001). Each of these reports provided important background on the commercial fishing access issue.

The survey

The survey used in this study was nearly identical to the questionnaire developed by CEI and its advisory committee. A few minor changes were made to clarify the data being sought. A sample of the questionnaire is provided in the appendices. Prior to administering the questionnaire, SCEC staff developed a spreadsheet of commercial and recreational waterfront access facilities that were listed in the prior studies in 1985 and 1998. In part, this was an effort to capture changes in available waterfront infrastructure over time; in part, it was a place to begin in trying to inventory facilities that were still active and new facilities that had come on line since those studies. However, unlike the prior studies, this study tried to determine the number of private wharfs, piers, beaches and roads that are providing access to commercial fishermen.

About the data

Although we have tried very hard to ensure that the data included in this study is complete and accurate, we must caution that in most communities we did not conduct a physical inventory of all public and private access points. Limited time and other resources did not enable such a thorough study. For the most part, we have had to rely on the first-hand knowledge of those we interviewed about the state of commercial fishing access in their communities, supplemented by knowledge gleaned from other sources such as comprehensive plans, state and local databases, and other studies and reports. However, although we have relied on primary and secondary sources of information to prepare this report, we are entirely responsible for any errors or omissions.

Likewise, following the lead of the "Preserving Commercial Fishing Access" study, we have tried to go beyond just reciting statistics emanating from our research and have attempted to provide a unique framework by which to analyze our findings. The so-called "vulnerability index" devised by CEI for its statewide study, is a series of criteria that the authors of that study believe may reflect a community's vulnerability to current and future loss of commercial fishing access. Although this framework is open to debate and evaluation by others, we found that it is at least a starting point by which to assess the likelihood or the unlikelihood of future erosion of commercial fishing access in our coastal communities. As the authors of the CEI study noted in their report, the vulnerability index they devised may suffer from "oversimplification and reading the data

as prescriptive. The reward is potential insight, increased attention and discussion of policy priorities.”

Vulnerability matrix

Using a binary system in which a “1” is assigned to each criteria for which a particular community is considered “weaker” than the average for that criteria among the other 22 communities in the study and a “0” is assigned for the criteria when the community is considered “stronger” on average than the other communities, the CEI vulnerability matrix uses the following criteria to determine if a particular community is prepared to deal with threats to commercial fishing access:

- Access is a priority for local officials
- Strong ordinances are in place
- Investment has been made in waterfront facilities
- The presence of a dedicated fish pier
- Development pressures are less on average
- The number of harvesters is greater on average

A variety of specific data is gathered for each criterion in an effort to evaluate a community’s vulnerability to further erosion of commercial fishing access. The following description of the above criteria is excerpted from the CEI study:

***Access is a priority:** This criterion underscores the importance of needing support from locally elected officials to champion this issue. A score of 1 reflects the fact we did not hear from the town’s interviewees that this was a priority issue.*

***Strong ordinances:** As is the case in most land use planning issues there are a range of potential regulations. In waterfront planning this includes anything from simple setback exclusions to use restrictions. This criterion score measures towns against the most effective tool that prevents waterfront conversion, which is exclusive zoning.*

***Investment in waterfront facilities:** This criterion attempts to get at the pressure against losing access when the town takes steps and invests in the infrastructure. The limit here is that this measure only focuses on a town’s most recent public investment efforts through the Small Harbor Improvement Program.*

***Dedicated fish pier:** A more obvious criterion is the presence or absence of a dedicated commercial fishing pier. This does not unfortunately reflect the state of that pier, i.e. the extent to which a town has maintained and invested in its upkeep.*

***The development pressure data:** This was the most complex and challenging criterion to select and find the right combination of data available at the municipal level to reflect coastal development pressure. The data are meant to make sense as a collection of indicators of development pressure – as singular measures they fail to capture the complexity or expression of development. With advice from the State Planning office we chose to include percentage change in population growth and*

housing units to capture the demand interest and pressure to live in a particular place as well as the demand and effect of dedicating more land to residential use. The census data used compares this change from 1990-2000. The next two measures, tax cost per acre and tax value per acre, attempted to address how a precipitous increase in property taxes can serve to push and/or pull people to sell working waterfront property. The tax cost per acre measures the push because of higher and higher tax bills. The tax value per acre attempts to measure the pull – incentive to sell property given the market opportunity to cash in. The latest census data available is for 2000. One need not look farther than the local paper or one’s own tax bill to know that the last two years is in fact when a significant number of town re-valuations have been triggered.

Greater than average size of harvester community: *Finally the last criteria selected tries to account for the strength in numbers factor for preserving commercial fishing access. Because of data limitations we took the number of harvesters as a percentage of each town’s population. Those with a percentage at or above the median...were considered less vulnerable.*

In discussing the vulnerability ranking criteria, the CEI study concluded: “Aside from the data limitations of each of the criteria it is important to explain that these measures do not get at perhaps the most important measure of a town’s strength against losing access – the town-wide commitment to maintaining commercial fishing access. We saw it in places but we could not measure it. We only hope that this matrix will help those groups focus on the tools it may take to keep their access.”

We make two other notations here. The smaller the community, the more difficult it was to obtain the local information necessary to support the vulnerability criteria selected for these studies. This can be attributed in part to the fact that many of these communities have strictly volunteer governments with no paid employees; it also can be attributed in part to the fact that we sought data that is not needed in the day-to-day operation of the town government and thus is not compiled. Having noted this, we found officials in all the communities we surveyed most helpful and willing to share whatever information they had in their possession. Finally, as we suggested earlier in this report, some of the data that relates to facilities and total current boat access are, at best, educated estimates. Short of physically counting each public and private facility and each mooring, tie-up and slip, it is not possible to be more precise in our calculations.

ANALYSIS OF ISSUES IDENTIFIED IN THE STUDY

No two communities face identical challenges when it comes to issues related to commercial waterfront access. Yet all of them share – in one way or another -- the development pressures that have fostered concerns over the erosion of commercial fishing access and infrastructure. As the anecdote at the beginning of this report suggests, every coastal community is dealing with the conversion of year-round local ownership to seasonal non-resident ownership. As one Washington County real estate

developer observed recently, coastal property is his “hottest seller” and, if anything, it is getting hotter as the Baby Boomers near retirement age.

In the face of rising demand for private coastal properties, a region that has relied on employment in the natural resource industries to provide its economic fortunes -- particularly its commercial fisheries -- is challenged to devise strategies that will balance the demand for coastal property ownership against the requirements for access to the resource that has provided a noble pursuit and a good living to Downeast families for generations.

I. Waterfront dependency

But just how waterfront-dependent are Downeast communities? Information compiled by the Department of Marine Resources (DMR) indicates that more than 3,600 commercial fishing licenses are issued each year in Washington County alone. Many fishermen, of course, hold multiple licenses that allow them to work in various fisheries year-round. In the 23 Downeast communities that we and CEI studied, we identified 2,674 commercial resources harvesters. We calculated the number of harvesters by eliminating duplicate licenses from the 2002 DMR list of commercial fishing licenses and adding in the number of commercial clam licenses sold in 2002 in the surveyed communities.² We did not use federal fishing permits as CEI did in its report because that dataset was incomplete for the towns we surveyed and our limited analysis of the data we did receive showed that many of the federal permittees also hold state commercial fishing licenses.

We also calculated the number of commercial fishing harvesters as a percentage of each surveyed community’s population per the 2000 Census as one of the vulnerability criteria mentioned earlier. However, this percentage also may relate to how dependent a community is on access to its waterfront. On average, we found that commercial fishermen represent just over 10% of each of the 23 communities’ total population. However, two communities (Beals and Roque Bluffs) had more than three times the average percentage of commercial fishing harvesters and five communities (Cutler, Harrington, Jonesboro, Jonesport and Machiasport) had twice the average percentage or nearly twice the average percentage.

We also found that more than three-quarters of the approximately 1,600 total boat current access (moorings+berthings+slips+tie-ups) are being used by commercial fishermen. Despite the imposition of licensing restrictions in recent years and a decline in some fisheries, these findings suggest the traditional Downeast fisheries remain vibrant and economically vital to the economy of the region. Washington County fishermen accounted for 9% of the total State landings (in pounds) in 1998 and 9% of the value of all commercial fishery landings in the State in that year. (Source: Maine Department of Marine Resources.)

² It is possible that some of the clam licensees also hold other commercial fishing licenses. We did not attempt to individually identify municipal clam license holders, only to record the total of commercial clam licenses sold by each coastal community in 2002.

II. Approaches to managing commercial fishing access

The working waterfronts Downeast are the product of decades of commercial fishing uses that have included several established traditional fisheries, the vibrancy of which have ebbed and flowed over the years. Sardine and other canning facilities are part of this history, as is the more recent salmon aquaculture industry. Regardless of the particular species sought, raised or processed, access to the waterfront has been achieved in a variety of ways, including municipal and commercial piers, public and private boat launches, private resident wharfs, and paths and roads over private coastal property. None of the Downeast towns have the exact same mix of approaches to waterfront access, but some communities, usually where the commercial fishing community is a significant percentage of the local population, have focused more on preserving their working waterfronts.

Some of this focus is reflected in the way in which the towns have planned for waterfront development. Table 1 shows that most Downeast towns have comprehensive plans (81%) in place, but very few have enacted local zoning ordinances (14%) that would address how their waterfronts are used. Not reflected in the table are the current comprehensive plan update initiatives that have been undertaken over the past few years

Table 1: The status of waterfront planning in Downeast Coastal communities

Community	Comprehensive Plan in effect	Zoning Ordinance	Mixed Use Zoning	Exclusive Zoning
Winter Harbor	Y	N		
Gouldsboro	Y	N		
Steuben	Y	N		
Milbridge	Y	N		
Harrington	N	N		
Addison	Y	N		
Jonesport	Y	Y	Mixed Use	
Beals	Y	N		
Jonesboro	Y	N		
Roque Bluffs	Y	N		
Machias	N	N		
East Machias	Y	N		
Machiasport	Y	Y	Mixed Use	
Cutler	Y	N		
Whiting	N	N		
Trescott Twp.	O	O		
Edmunds Twp.	O	O		
Lubec	Y	N		
Eastport	Y	Y	Mixed Use	
Pembroke	Y	N		
Perry	N	N		
Robbinston	Y	N		
Calais	Y	N		

Percentages	81%	14%	14%	0%
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Key: Y= Yes; N=No; O= Other. Note Edmunds and Trescott Townships are under Land Use Regulation Commission jurisdiction and are overseen by the Washington County Unorganized Territory administrator.

(Beals and Whiting, to name two). Coastal communities involved in this updating process are focusing on waterfront use and access and are addressing those issues in their revised town plans. Finally, at least one town (Gouldsboro) commissioned a study of its harbors in 1995 and identified specific actions that need to be taken to improve waterfront management and access. Unfortunately, many of the proposed changes have not been accomplished to date.

One striking difference between our findings and those of the statewide study is the small percentage of Downeast communities that have adopted harbor zoning ordinances. It is similarly notable that where nearly a quarter of the other coastal communities surveyed by CEI indicated they used “exclusive zoning” for their waterfronts, not a single Downeast community has adopted such a restrictive waterfront measure. This lack of aggressive action to protect waterfront development may most logically be attributed to the fact that threats to waterfront access for commercial fishermen Downeast is a much more recent phenomenon in this region than in the Midcoast and Southern coast regions. This combined with a general reluctance (and in some cases, a perceived lack of need) in small, rural communities to place restrictions on land use suggests that establishing zoning ordinances is often considered a last option in addressing growth and development issues.

As the CEI study noted, the fact that a waterfront community has zoning does not tell us anything about the quality or adequacy of commercial fishing access in that community. Two of the three Downeast communities that have waterfront zoning ordinances in place still believe access to the waterfront for local fishermen is a problem. Further, all three of those communities are engaged in efforts to shore up access. So while zoning may be one aspect of ensuring adequate access for commercial fishing, by itself it does not guarantee access.

III. Concern about access issues

Our survey showed that approximately 40% of Downeast communities have a permanent

Table 2: Current efforts to address access for commercial fishermen

13% Looking for land	26% just purchased land	57% improving access infrastructure
Beals	Pembroke	Steuben
Eastport	Jonesport	Calais
Machiasport	Machiasport	Beals
	Gouldsboro	Pembroke
	Jonesboro	Milbridge
	Winter Harbor	Jonesboro
		Eastport

		Gouldsboro
		Lubec
		Whiting
		Winter Harbor

harbor board or commission and that committee, usually in concert with the harbor master, pays attention to issues involving working waterfront access for commercial fishermen. In 30% of the communities surveyed, the board of selectmen or the town manager endeavored to give their attention to this issue. In 17% of the communities, the harbor master was the individual who was attentive to this issue and in 13% of the communities, the clam warden undertook this responsibility. We should note that this latter category is probably something unique to East Central Washington County, where one individual, a clam warden employed by the State, pays attention to access issues in the two unorganized townships (Edmunds and Trescott) and in nearby Whiting. As the CEI report noted, we asked who in each community “pays attention” to the issue of commercial fishing access. The answers do not tell us who actually makes the decisions about the community’s waterfronts, which is usually a combination of several local bodies, including councils, boards of selectmen, planning boards and, in many cases, the citizens themselves at town meeting.

IV. Efforts to shore up access

Just over half of the communities we surveyed indicated that they were working on, or planning to initiate some activity, that would enhance or shore up access for commercial fishing. More than half of those communities were focusing on improving waterfront infrastructure (57%), while more than 25% had just purchased land and three communities (13%) were looking for land to purchase. Forty-four percent of the Downeast communities we surveyed had applied for funding under the Small Harbor Improvement Program (SHIP), administered by the Maine Department of Transportation, with 35% of the Downeast communities having actually received support from the SHIP program for their waterfront projects. The SHIP program has had three rounds of funding since its inception in 1995. Information in the last two columns of Table 3 reflects activities for Downeast communities in those three rounds of funding (1995, 1998, and 2002). This information was provided by MDOT.

Table 3: Community activities addressing access initiatives (*Corrected version*)

Community	Looking for Land	Just Purchased Land	Improving Infrastructure	Have applied for SHIP funds in past	Have received SHIP funds in past
Winter Harbor		X	X	X	X
Gouldsboro		X	X	X	X
Steuben			X		
Milbridge			X	X	X
Harrington				X	X
Addison				XX	X
Jonesport		X	X	X	X
Beals	X		X	X	X
Jonesboro		X	X		
Roque Bluffs				X	X
Machias					
East Machias					
Machiasport	X	X	X	X	
Cutler					
Whiting			X		
Trescott Twp.					
Edmunds Twp.					
Lubec			X		
Eastport	X		X		
Pembroke		X	X		
Perry					
Robbinston					
Calais			X	X	
	13%	26%	57%	44%	35%

V. Is commercial fishing access a problem?

Despite all of the interest and activity related to access reflected in the earlier section of this report, only 7 (30%) of the 23 communities list access for commercial fishermen as a current problem. The key word here is “current.” With but a few exceptions, the community officials we interviewed – even when they answered that commercial access was not a problem at present – described impending threats to that access. For example, in the Town of Perry, it was the possible sale of two large parcels of coastal property that have provided access to the flats for 40 to 50 clam diggers living in the area that was worrying some folks. In several towns where commercial fishing access is not now a problem, those interviewed qualified this assessment by commenting that access could very well become a problem in the future if any current private or public access is lost.

In our study, we heard stories of lost commercial fishing access that were similar to those detailed in the statewide study: Lost access across private property for clam and worm diggers, as well as other fishermen, deteriorating public and private infrastructure, lack of

adequate parking, greater competition from recreational users in sharing public access points and facilities and a heavy reliance on private access that carries no guarantees of future use. But we also heard just as many stories about the efforts that have been undertaken in Downeast communities to make sure that commercial fishermen retain access to the resource. In Pembroke, a partnership of local, state and federal funds built a new launch and docking facility featuring a paved parking lot that was completed just last fall. In Beals, town officials, working with the Eastern Maine Development Corporation, the Maine Department of Conservation and the Maine Department of Transportation, successfully sought and received Community Development Block Grant funds to build a new town landing in Alley's Bay. In Milbridge, town officials are seeking federal funds to help repair the town-owned pier that is used heavily by the local fishing community. In Calais, efforts are underway to restore the town's waterfront, including the proposed construction of a new town pier in the footprint of the former town pier. In Jonesboro, selectmen are seeking state funds to help them repair the recently-acquired town marina on the Chandler River.

But these and other similar projects may be just the beginning for Downeast coastal towns which are now starting to experience the pressures on access that communities to the south of us have experienced for many years. These pressures range from the previously mentioned transfer of shorefront property from local to non-local ownership to the higher property taxes resulting from the sale of those coastal properties to the ever-spiraling prices for waterfront properties. There is also the reality of limited resources in both the public and private sectors in Downeast communities with which to respond to these pressures. Few small towns have the tax base to support expensive renovations to public piers or landings, meaning they must depend on grants from the state and federal governments or assistance from private foundations. At the same time, many of these communities cannot afford to purchase additional waterfront property for public use without outside help. And, once having repaired the pier or purchased new public access, communities must then contend with competition for the use of those access points that come not only from the commercial fishing community but also from recreational boaters and tourists. It is this ongoing competition for the use of public access facilities that has led some commercial fishing harvesters to seek private, rather than public, solutions to the access problems they face. Unfortunately, the high cost of buying waterfront property, in the face of the continuing escalation in market demand for such property, has limited the ability of many fish harvesters to successfully resolve their access issues by buying that access outright.

VI. Which fisheries depend on waterfront access?

Communities participating in the study were asked which fisheries or fisheries-related business operate in their towns and need access to the waterfront. Where access problems exist, these are the individuals and businesses that are impacted. Table 4 shows the number of communities and the percentage of the 23 communities surveyed that reported the presence of the particular category of fisheries or support industries.

Table 4: Downeast fisheries/support industries dependent on waterfront access

Category	Count of communities	% of total
Clam/Worm/Seaweed harvesters	21	91%
Lobster harvesters	18	78%
Scallop harvesters	17	74%
Sea urchin harvesters	16	70%
Boat yards	12	52%
Other	11	48%
Mussel harvesters	11	48%
Fuel and ice	11	48%
Lobster pounds	8	35%
Bait dealers	8	35%
Groundfish harvesters	6	26%
Co-ops	2	9%

Clam digging, lobstering and scallop fishing were the most reported fisheries, followed closely by sea urchin fishing. “Other” fisheries not specifically listed but included in the count in Table 4 were periwinkle, sea cucumbers and quahogs. In addition, at least two communities counted salmon aquaculture as part of their community’s commercial fishing industries.

VI. What are the current and future threats to commercial fishing access Downeast?

Our questionnaires asked Downeast communities to describe both current and future threats to commercial fishing access in their towns or cities. Selecting from a list of likely threats, we found that current threats and future threats differed somewhat, depending on the urgency of the access issue in the community. For example, deterioration of infrastructure (wharves and piers) ranked higher (36% and tied for 3rd) in the current threats tallies than it did the future threats category (28% and 5th). The difference may be attributed to the number of Downeast coastal communities that are currently in the process of repairing public piers or building new boat landings and where infrastructure is a top-of-mind issue. “Development pressures” ranked high in both current and future threats (44% and tied for 1st in the former and 52% and 1st in the latter), while higher taxes also was shown to be a significant concern in both current and future threat assessments (44% and tied for 1st in the former; 44% and 3rd in the latter.) “Conversion of residential/commercial property to residential property” tied for third (36%) in the current threats ranking, but rose to second (48%) in the future threats tally.

Table 5: Current and future threats to commercial fishing access

Current threats	# Towns	% age	Future threats	# Towns	% age
Higher taxes	11	44%	Development pressures	13	52%
Development pressures	11	44%	Conversion residential /commercial property to residential	12	48%
Infrastructure deterioration	9	36%	Higher taxes	11	44%
Conversion residential/commercial property to residential	9	36%	Increased competition from tourism	10	40%
Increased competition from tourism	7	28%	Infrastructure deterioration	7	28%
Decline commercial fishing	5	20%	Decline commercial fishing	6	24%

VII. How much commercial fishing access will exist in the future?

As part of our effort to gauge whether fishing access will decline or increase in the future, we asked each community to evaluate what they thought the state of commercial fishing access would be 2, 5 or 10 years into the future. The response also was indicative of the level of concern with the problem among those we interviewed. Table 6 shows that a clear majority of communities believe access will stay the same in the future, but that majority narrows the further into the future one predicts. Correspondingly, the percentage of those communities that believe commercial fishing access will decrease in future year increases the further into the future one predicts. Both of these trends, of course, are probably attributable to the fact that uncertainty also increases the further into the future one tries to predict. Those communities predicting an increase in commercial fishing access seemed to suffer less from this uncertainty. The number of communities believing commercial fishing access will increase in the future remains relatively unchanged looking into the future.

Table 6: Commercial fishing access in the future

Don't Know	0%	4%	4%
Future State of Commercial Fishing Access in Downeast communities	Two Years	Five Years	Ten Years
Increase	22%	26%	26%
Stay the same	74%	57%	52%
Decrease	4%	13%	18%

IX. How to protect commercial fishing access

We asked each Downeast coastal community surveyed to indicate how they might protect commercial fishing access. We also asked them about public and private access infrastructure and whether investments were needed in those facilities. In trying to determine what communities needed in order to address access issues, we asked what access strategies they might employ and what type of assistance they might need in pursuing those strategies.

We found that nearly two-thirds (61%) of the 23 Downeast coastal communities we surveyed were addressing now or planning to address commercial fishing access in the future. The nearly 35% of communities that were not planning to address commercial fishing access in the future fell into two categories: First, towns that had addressed access by renovating existing facilities or by constructing new public facilities in recent years (Harrington, Robbinston, Edmunds and Trescott Townships, Perry and Pembroke); second, towns that have significant amounts of access already (Lubec and Cutler). We also found that programs such as the Community Development Block Grant (CDBG) Public Facilities Grants Program and the Small Harbor Improvement Program are extremely valuable to Downeast communities trying to address commercial fishing access issues. As this report is writing, it was announced that the Town of Beals had been awarded a \$250,000 CDBG Public Facilities Grant to allow it to build a new town landing in Alley's Bay. Forty-four percent of the 23 Downeast communities we surveyed

Table 7: Public infrastructure improvements

Infrastructure Improvement	Count	% of total
Expand parking area	9	5.63%
Increase mooring field	7	4.38%
Dredging	7	4.38%
Expand pier/wharf	6	3.75%
Other improvements	6	3.75%
Expand floats	6	3.75%
Repair floats	5	3.13%
Build a boat ramp	5	3.13%
Repair pier/wharf	4	2.50%
Create new parking area	4	2.50%
Land acquisition	3	1.88%
Increase berth space	3	1.88%
Repair boat ramp	3	1.88%
Permitting assistance	2	1.25%
Build a marina	2	1.25%
Cold storage facilities	1	0.63%
Erosion control	1	0.63%
Increase bulkhead	1	0.63%
Replace boat ramp	1	0.63%

Low-interest loans	1	0.63%
Expand trailer parking	1	0.63%

had applied for a SHIP grant in its first three rounds of funding to help with waterfront access and infrastructure projects and 80% of those communities received grants.

Table 7 shows the types of public infrastructure improvements needed by the communities surveyed to assist commercial fishing access in their communities. No one improvement dominates, but every community seems to share some of the infrastructure improvement needs. Of particular importance in the use of any boat ramp, pier or other type of infrastructure is adequate parking. As the statewide quoted fishermen, “unless you can park a truck, access means nothing.”

Table 8: Private infrastructure improvements

Infrastructure Improvement	Count	% of total
Property tax relief	8	6.56%
Expand parking area	7	5.74%
Low-interest loans	6	4.92%
Repair pier/wharf	6	4.92%
Expand pier/wharf	6	4.92%
Land acquisition	5	4.10%
Dredging	5	4.10%
Expand floats	5	4.10%
Permitting assistance	4	3.28%
Increase berth space	4	3.28%
Cold storage facilities	3	2.46%
Land acquisition	3	2.46%
Increase mooring field	3	2.46%
Repair floats	3	2.46%
Other improvements	2	1.64%
None of these choices	1	0.82%
Increase bulkhead	1	0.82%

Table 8 indicates the types of private infrastructure improvements necessary to assist commercial fishing access. It is not surprising that property tax relief was cited most frequently here, given rising property taxes for coastal properties. Likewise, obtaining low-interest loans to fund maintenance, repairs on new waterfront access infrastructure received significant interest. Again, expanding parking ranked high among respondents.

IX. Low-interest loan fund

Given limited public resources to be devoted to ensuring commercial fishing access, the CEI survey asked (as did we) whether establishing a low-interest loan fund to assist commercial fishermen in addressing waterfront access issues would be important. Although the statewide study found that more than three-quarters of those communities

viewed a low-interest loan fund as either “critical” or “important” to commercial fishermen, the Downeast study found only about half that percentage (40%) of communities surveyed thought a low-interest loan fund was would help commercial fishermen address the access problems. Nearly one-third (32%) of communities surveyed did not think such a fund was applicable to the access issues that exist in their communities, while 20% considered such a fund “not important.”

X. Planning tools to address waterfront access issues

The final questions in the survey asked participating communities what planning tools might assist them in addressing waterfront access issues. Not surprisingly, nearly three-quarters of all communities surveyed ranked property tax relief as the most desired approach to helping them address waterfront access issues. Nearly that percentage (70%) answered that planning assistance was also needed, while more than 60% indicated that purchasing access rights would be helpful.

Table 9: Tools to achieve waterfront access

Planning tool	# communities very interested	# of communities interested	Totals	% ages
Property tax relief	12	5	17	74%
Planning assistance	13	3	16	70%
Purchase access rights	6	8	14	61%
Deeded access	6	6	12	52%
Planning workshop on access tools	6	7	13	57%
Transfer shoreside development inland	2	3	5	22%

When communities indicated they were interested in “planning assistance,” we asked them to describe the assistance they thought would be helpful with their access problems.

Table 10: Planning assistance needed

Type of assistance	% of total responses
Grant writing	22%
Developing a harbor ordinance	10%
Identifying sources of funding for harbor improvements	22%
Data collection and analysis	22%
Facilitation public-private partnerships for commercial	9%

access	
Legal research	15%

Table 10 summarizes the responses for communities that said they were “very interested” or “interested” in planning assistance and were specific about their needs.

RECOMMENDATIONS

The thrust of this study, by design, is more descriptive than prescriptive. Accordingly, we offer only a few recommendations that focus largely on furthering the work that has been initiated with the statewide coastal access study undertaken by CEI and this study of Downeast coastal communities.

- Having established a baseline of data on commercial fishing access has been developed for Downeast communities, regular updates of this data should be undertaken.
- Harbor masters across the region, as well as other municipal officials with an interest in waterfront access, should be asked to join with the organizations that sponsored this study to continue efforts to track changes in commercial fishing access in the future.
- The Maine Department of Transportation’s Small Harbor Improvement Program should be refunded in the department’s general transportation bond issue to be presented to voters in November 2003. This program represents one of only a few programs available to Maine’s towns and cities to help them address waterfront access and infrastructure issues.
- Downeast coastal communities are frequently in need of planning and other technical assistance in addressing waterfront access issues. The Sunrise County Economic Council, Coastal Enterprises Inc., the Eastern Maine Development Corporation and the Maine State Planning Office’s Coastal Program, in cooperation with the Maine Department of Marine Resources, the Maine Department of Conservation and the Maine Department of Transportation, should collectively continue their efforts to direct resources – however limited -- toward resolving waterfront access issues on the Downeast coast.
- The organizations listed above should also encourage a variety of partnerships in addressing commercial fishing access issues Downeast, including public-private partnerships, county-local government partnerships, and local-state government partnerships, among others.
- As an adjunct to the last recommendation, the organizations that were party to this study should work with coastal realtors to assist them in educating prospective coastal property buyers about the history and the importance of commercial fishing access on the Maine coast, particularly the industry’s dependence on

private access. This might be accomplished, in part, by developing a brochure that could be provided to prospective buyers by the realtors.

CONCLUSION

The purpose of this study was to provide a baseline of information about commercial fishing access in Downeast coastal communities. This baseline is to be used to track changes in commercial fishing access over time. The need for this continued scrutiny is two-fold. First, absent efforts to track changes in access, we cannot adequately respond to the needs of the commercial fishing industry in a timely manner. This response includes changes in local priorities, changes in state and federal policies and programs, and changes in how the private sector approaches the waterfront access issue. Second, with only 25 miles of working waterfront left on the Maine coast³, we cannot afford to lose any more of it. Commercial fishing is part of who we are as Mainers. It is rooted deeply in our social and economic cultures and it should not be allowed to fade into history because we have been inattentive to one of its critical components, waterfront access.

Epilogue

The primary limitation of any study, particularly one based on survey results, is that the accuracy of information collected is both source-dependent and time-limited. Most of the questionnaires for this study were administered in October and November of 2002. Although reviews of the survey instruments by those to whom they were administered occurred in December 2002, that does not necessarily mean the results presented here are in any way static. Change is a given and the state of waterfront access Downeast is likewise in constant flux. One example is in the Town of Lubec, which has recently found itself facing the loss of the use of its marina and town pier. Town voters recently declined to provide funds to help the financially struggling facility to continue to operate, resulting in the layoff of its full-time marina manager and harbormaster. As this report is written, no one is certain what the future of the Lubec marina and town pier will be or how its possible loss will impact the local commercial fishing industry.

Another example is in Milbridge, where town officials are seeking federal Economic Development Administration funding for the renovation of Jordan Pier, the town's primary commercial fishing facility. Town officials say quite frankly that the loss of the full-tide pier "would devastate the local economy." At this writing, the Town was working with a community development specialist with the Eastern Maine Development Corporation to pursue federal funds.

Both of these examples seem to support the need to continue to monitor commercial fishing access Downeast.

³ Source: Maine State Planning Office, 2000.

Key to Town Profiles

A profile was created for each Downeast community that was surveyed. The profile was developed to compare and contrast boat access and facilities data for the communities, as well as other information collected for the study. The profiles feature four distinct sections: Boat access and waterfront facilities data, development pressure data, waterfront issues, and the commercial fishing access vulnerability rating derived from the vulnerability matrix mentioned in the *Methodology* section. This information is not only presented for each individual community, but also for the 23 communities combined.

The boat access and waterfront facilities data includes the following:

- ❖ Miles of coastline, which includes islands and tidal rivers that are part of each town. The Maine Coastal Program at the State Planning Office was the source of this data.
- ❖ Total commercial resource harvesters. This is the total of all marine resource harvesters in each Downeast community that hold a commercial fishing license either with the town (clam) or the State. The local license information came from municipal offices in Downeast communities; the state license information came from the Maine Department of Marine Resources.
- ❖ Fisheries impacted by loss of access. These are the fisheries that commercial fishermen in each community fish based on responses for those we interviewed. (See the key at the bottom of the profiles.)
- ❖ Total current boat access. This is the sum of commercial and recreational boat access that is currently in use. It is the total of all access (moorings + berths + slips + tie-ups). It should be noted that much of this data is based on estimations made by those we interviewed. It also does not indicate the potential capacity (some coastal towns seemingly have unlimited mooring capacity), but is an effort to document what now is believed to exist.
- ❖ Percent of total current boat access used by commercial fishermen. This is the estimated percent of total current boat access that is being used by commercial fishing boats.
- ❖ Facilities. This is an inventory of the total number of commercial private and public waterfront facilities that existed in Downeast towns when the survey was conducted last fall. These facilities provide access to the water either for a fee or free of charge.
- ❖ Waterfront facilities dedicated to commercial fishing use. This number is the total of commercial and public waterfront facilities that primarily provide commercial fishing access. Some recreational use may occur, but is not the primary use of the facility.
- ❖ Commercial fishing access achieved through private residences. This is the estimated percentage of commercial fishing access that is achieved through piers or wharfs that are owned or leased by fishermen that are at a private residence or property.

- ❖ Other access points. This is the total number of other access points (beaches, land, paths across private or public property) that are not actual facilities.

The development pressure data in the profiles consists of the following:

- ✚ Percent change in population in each community between 1990 and 2000
- ✚ Percent change in housing units in each community between 1990 and 2000⁴
- ✚ Annual tax effort per acre (total tax commitment divided by total taxable acres) for each Downeast community
- ✚ Land valuation per acre (total land value divided by total taxable acres) for each community⁵

This data were drawn from the U.S. Census for 1990 and 2000 and from the Property Tax Division of the Maine Revenue Service

Waterfront issues information was drawn from the interviews with community representatives and others. This information includes:

- Commercial fishing access is a problem. Respondents were asked for a “yes” or “no” answer here as it related to the situation in their community.
- Current threats to commercial fishing access. The profiles list the top three current threats to commercial fishing access that were identified by each community.
- Planning to address commercial fishing access. Respondents again were asked for a “yes” or “no” answer in providing their perception of whether or not the community was planning to address commercial fishing access issues.
- Top three access tools. Each surveyed community was asked to identify which tools they might need to address commercial fishing access issues.

The commercial fishing access vulnerability rating section attempts to evaluate each community’s status with respect to how vulnerable it is to losing commercial fishing access. The rating is a number that was calculated by examining certain data for a community and assigning points based on whether the data for each community was higher or lower than the average among the 23 Downeast communities. Elements of the matrix were:

⁴ The 1990 and 2000 population and housing figures for Edmunds and Trescott Townships are estimates calculated by the State Geographical Information Systems Office using U.S. Census data points. This could result in some inaccuracy in the figures, particularly for data points adjacent to township lines. In lieu of Census data reported specifically for each township in the East Central Unorganized Territory, it was the best estimate we could find.

⁵ The annual tax effort per acre and the annual land value per acre were drawn from both local records and the Maine Revenue Services municipal reports. We used the 2001 land valuations and tax commitment figures provided by each coastal town and divided that by the number of taxable acres reported to Maine Revenue Services by each town for the 2002 tax year. This would result in some level of inaccuracy but only in cases where a community lost a significant amount of taxable acres to non-profit status from the 2001 tax year to the 2002 tax year. We were unable to uncover such a significant change in any of the towns in our research.

- Commercial fishing access as a community priority
- Whether or not a community has strong ordinances
- Whether or not a community has a dedicated fish pier
- Development pressures (see above)
- Number of harvesters in each community

The vulnerability ratings ranged from a low of 1 to a high of 7, with communities falling in the 1-3 category considered to have the least vulnerability to loss of commercial fishing access, communities in the 4-5 category considered moderately vulnerable, and communities at the 6-7 level having the greatest vulnerability to loss of commercial fishing access.⁶

Key to fisheries in Tables, pages 23-32: **GF** = Groundfish, **L** = Lobster, **SU** = Sea Urchin, **C** = Clam, **W** = Worm, **SW** = Seaweed, **M** = Mussel, **S** = Scallop, **LP** = Lobster Pounds, **BD** = Bait Dealers, **BY** = Boat Yards, **F & I** = Fuel & Ice, **CO** = Co-ops, **O** = Other, **NA** = No Answer

⁶ Although it was possible for a community to score as many as 9 points because of the multiple values included in the “Development pressures” matrix, none of the towns we surveyed scored above 7. Thus, we retained the upper range of “6-7” in ranking vulnerability to loss of access.

TOWN PROFILES

(Insert boataccessables)

APPENDICES

1. Vulnerability matrix

Town	Access as Priority	Strong ordinances	Investment	Dedicated Commercial Access	Development Pressure	Harvesters	TOTAL POINTS
Winter Harbor	1	1	0	1	1	1	5
Gouldsboro	0	1	0	1	3	1	6
Steuben	1	1	1	1	2	0	6
Milbridge	0	1	0	0	2	0	3
Harrington	1	1	0	0	2	1	5
Addison	0	1	0	1	2	0	4
Jonesport	0	1	0	1	1	0	3
Beals	0	1	0	1	3	0	5
Jonesboro	0	1	1	0	2	0	4
Roque Bluffs	1	1	1	0	1	0	4
Machias	1	1	1	1	0	1	5
East Machias	1	1	1	1	2	1	7
Machiasport	0	1	0	0	3	0	4
Cutler	0	1	1	1	0	0	3
Whiting	0	1	1	1	2	1	6
Trescott Twp.	1	1	1	1	2	1	7
Edmunds Twp.	1	1	1	0	2	1	6
Lubec	1	1	1	0	0	0	3
Eastport	0	1	1	1	2	1	6
Pembroke	0	1	1	0	2	0	4
Perry	0	1	1	1	2	1	6
Robbinston	1	1	0	0	1	1	4
Calais	0	1	0	1	4	1	7

Access as Priority: a 0 score indicates those towns in which elected officials considered access a high priority issue for the town

Strong Ordinances: a 0 score indicates those towns which use exclusive zoning as a tool to protect commercial fishing access.

Investment: a 0 score indicates those towns which recently received funding from the Small Harbor Improvement Program to invest towards improving access

Dedicated Fish Pier: a 0 score indicates those towns which have a fish pier dedicated to or prioritizes commercial fishing

Development Pressure: a 0 score indicates those towns which are below the average (change in population, change in housing units, tax cost per/acre & valuation per/acre) of the 23 towns surveyed

No. of Harvesters: the number of harvesters as a percentage of the town population. Those at or below the median (10.1%) received a 0 score.

2. Development pressure matrix

Town	% Change population 1990-2000	score	% Change housing units 1990-2000	score	\$ Tax cost/ acre 2001	score	\$ Valuation /acre 2001	score
Calais	-5%	1	16%	1	\$174.98	1	\$2,049.61	1
Robbinston	6%	1	4%	0	\$17.31	0	\$520.84	0
Perry	8%	1	24%	1	\$31.49	0	\$1,197.68	0
Pembroke	4%	1	21%	1	\$33.50	0	\$1,064.76	0
Eastport	-17%	0	1%	0	\$785.08	1	\$5,065.22	1
Lubec	-10%	0	6%	0	\$64.58	0	\$1,291.77	0
Edmunds	7%	1	27%	1	\$4.53	0	\$340.67	0
Trescott	20%	1	42%	1	\$9.41	0	\$750.44	0
Whiting	14%	1	42%	1	\$12.11	0	\$416.12	0
Cutler	-22%	0	5%	0	\$24.82	0	\$611.26	0
Machiasport	-1%	1	12%	1	\$79.73	0	\$1,846.18	1
East Machias	7%	1	22%	1	N/A	--	N/A	--
Machias	-9%	0	8%	0	N/A	--	N/A	--
Roque Bluffs	17%	1	4%	0	\$39.79	0	\$1,564.50	0
Jonesboro	-2%	1	13%	1	\$25.74	0	\$571.67	0
Beals	-8%	0	11%	1	\$246.80	1	\$5,016.13	1
Jonesport	-8%	0	3%	0	\$54.00	0	\$2,222.76	1
Addison	9%	1	20%	1	\$41.28	0	\$1,583.21	0
Harrington	1%	1	16%	1	\$54.05	0	\$1,327.06	0
Milbridge	-2%	1	12%	1	\$94.39	0	\$1,677.17	0
Steuben	4%	1	16%	1	\$50.17	0	\$1,031.90	0
Gouldsboro	-2%	1	15%	1	\$80.29	0	\$2,705.00	1
Winter Harbor	-15%	0	8%	0	\$94.04	0	\$3,434.61	1
Averages	-5%		11%		\$95.80		\$1,720.42	

Note: The scores in this appendix are calculated by taking the average of each category across the sample communities. Communities with percentages or dollars figures below the average of the other surveyed communities suggest there is less pressure to develop and are assigned a score of "0." Communities with percentages or dollar figures above the average received a score of "1." The total score for each community's development pressure index was then recorded in the vulnerability matrix table (Appendix 1, 6th column across).

3. Fishing presence

Coastal Order	Community	State License	Clam License	Total Per town	Score	Clam Data Source
1	Winter Harbor	55	0	55	1	CEI Report
2	Gouldsboro	133	17	150	1	Town manager
3	Steuben	138	21	159	0	Town office
4	Milbridge	144	70	214	0	town manager
5	Harrington	109	57	166	1	Jim Layton
6	Addison	151	40	191	0	CEI Report
7	Jonesport	191	73	264	0	CEI Report
8	Beals	191	12	203	0	from town clerk
9	Jonesboro	79	44	123	0	from annual report
10	Roque Bluffs	41	58	99	0	from annual report/town clerk
11	Machias	88	0	88	1	No flats
12	East Machias	50	27	77	1	town office
13	Machiasport	150	79	229	0	CEI Report
14	Cutler	87	43	130	0	town office
15	Whiting	16	6	22	1	town clerk
16	Trescott Twp.	7	n/a	7	1	State issues
17	Edmunds Twp.	8	n/a	8	1	State issues
18	Lubec	209	59	268	0	town office
19	Eastport	43	4	47	1	CEI Report
20	Pembroke	58	35	93	0	Harbor master
21	Perry	39	22	61	1	town clerk
22	Robbinston	8	0	8	1	flats are closed
23	Calais	12	0	12	1	No requests
Totals		2007	667			

Grand Total of Harvesters in all 23 towns: 2674

Average number of harvesters in the 23 towns: 119

Note: State license data obtained from Department of Marine Resources

No. of Harvesters a percentage of the town population: Those at or above the median (10%) received a 0 score.

WATERFRONT ACCESS QUESTIONNAIRE

Town/City:

Date of Interview:

Name(s):

- Yes
- No
- Don't Know
- Not applicable
- Other *If other, please explain...*

- Deterioration of infrastructure (wharves, piers)
- Increased competition from tourism or recreational use
- Conversion of residential/commercial property to residential
- No Opinion
- Don't Know
- Not Applicable
- Other *Please describe...*

1) Current Approach to waterfront protection at the municipal level:

5b.) If yes...is it through:
Please check all that apply

1.) Is your waterfront managed as part of a town/city comprehensive plan?

- Looking for land to acquire
- Just purchased land
- Improving infrastructure
- Don't Know
- Other *If other, please explain...*

- Yes
- No
- Don't Know
- Not applicable
- Other *If other, please explain...*

2.) Does the town/city currently manage access to the waterfront through zoning?

- Yes
- No
- No opinion
- Don't Know
- Not applicable
- Other *If other, please explain...*

- Yes
- No
- Don't Know
- Not applicable
- Other *If other, please explain...*

3a.) If yes...Does the zoning include a special waterfront provision?

6.) Is there a waterfront access problem for your commercial fishing community? *Please describe...*

7.) If yes...What is the problem? *Please describe...*

8.) If yes...Why is it a problem? *Please describe...*

9.) If yes...Whom in your community does this problem affect? *Please check all that apply...*

- Groundfish harvesters
- Lobster harvesters
- Sea urchin harvesters
- Clam/Worm/Seaweed harvester
- Mussel harvesters
- Scallop harvesters
- Lobster pounds
- Bait dealers
- Boat yards
- Fuel and Ice
- Co-op
- Other *If other, please explain...*

- Yes
- No
- Don't Know
- Not applicable
- Other *If other, please explain...*

3b.) If yes...is it?:

- Prohibiting non-water-dependent uses
- Requiring owners to create or maintain public access
- Limiting the size and height of buildings
- Prioritizing water uses
- Setback only
- Other *If other, please explain...*

4.) Who in your community pays attention to commercial fishing waterfront access issues?

- Permanent waterfront/harbor committee
- Ad hoc committee
- No one
- Don't Know
- Not applicable
- Other *If other, please explain...*

5a.) Are there any local efforts to shore up access?

- Development pressures
- Higher Taxes
- A decline in the commercial fishing industry

10.) What are the current threats to losing commercial fishing access to the waterfront in your community? *Please check all that apply...*

11.) What are the future threats to losing commercial fishing access to the waterfront in your community? *Please check all that apply...*

- Development pressures
- Higher Taxes
- A decline in the commercial fishing industry
- Deterioration of infrastructure (wharves, piers)
- Increased competition from tourism or recreational use
- Conversion of residential/commercial property to residential
- No Opinion
- Don't Know
- Not Applicable
- Other *Please describe...*

12.) In your opinion, do you think commercial fishing access in 2, 5 & 10 years will decrease, stay the same or increase in your community?
Comm. Fishing access will decrease
 2 years 5 years 10 years
Comm. Fishing access will stay the same
 2 years 5 years 10 years
Comm. Fishing access will increase

- No Opinion
- Don't Know
- Not Applicable
- Other *Please describe...*

II. Ways to protect access.

1a.) Is the town/city or group(s) in your community planning to address commercial fishing access issues in the future?

- Yes
- No
- No opinion
- Don't Know
- Not applicable

1b.) If yes...what is planned and by whom? Increase mooring field A planning workshop

Land acquisition on waterfront access tools

2a.) In your opinion are there any specific improvements that could be made to assist private commercial or private commercial/residential owners in maintaining commercial fishing access? Dredging Other

Permitting assistance *Please describe...*

Cold storage facilities

Other improvements

Yes *Please describe...*

No

No opinion

Don't Know

Not applicable

2b.) If yes...what are some improvements. Please check all that apply...

Repair pier/wharf Yes

Repair floats No

Expand pier/wharf No opinion

Expand floats Don't Know

Expand parking area Not applicable

Increase bulkhead Other *Please describe...*

Increase berth space

Increase mooring field

Land acquisition

Dredging

Low interest loans

Property tax relief

Permitting assistance

Cold storage facilities

Other improvements *Please describe...*

3a.) In your opinion are there any specific infrastructure improvement projects that would help preserve or create public commercial fishing access in your town/city? Yes

No

No opinion

Don't Know

Not applicable

3b.) If yes...What are some improvements? Please check all that apply....

Repair pier/wharf

Repair floats

Expand pier/wharf

Expand floats

Expand parking area

Increase bulkhead

Increase berth space

4.) Do you think a low interest loan fund for private pier owners would help protect commercial fishing access to the waterfront?

Yes

No

No opinion

Don't Know

Not applicable

Other *Please describe...*

5.) How important do you think such a loan fund is?

Critical Yes

Important No

Not important No opinion

No Opinion Don't Know

Don't Know Not applicable

Not applicable

Other *Please describe...*

6a.) Do you think there is anyone in particular whom we should follow up with about a low interest loan fund?

Yes

No

No opinion

Don't Know

Not applicable

6b.) If yes...please list whom:

7a.) Would you be interested in any of the following tools or test ideas to help preserve commercial fishing access to the waterfront in your community?

	Very	Interest'd	Not
Planning assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Property Tax Relief	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>			
Deeded Access	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>			
Purchase Access Rights	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>			
Transfer shore side	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>			
development inland			
keeping the waterfront accessible			

7b.) If you are interested in planning assistance, what assistance do you think your community needs:

Grant writing

Developing a harbor ordinance

Identifying sources of funding for harbor improvements

Data collection and analysis

Facilitating public-private partnerships for commercial access

Legal research

Other *Please describe...*

8a.) Is there anything else (not discussed in this survey) that may assist your town in preserving commercial fishing access to the waterfront?

Yes

No

No opinion

Don't Know

Not applicable

8b.) If yes...please list what below:

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Fishing, Farming and Forestry: Resources for the Future, Maine State Planning Office for the 119th Maine State Legislature, March 2001.

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