

**Monhegan Plantation Community Benefits Advisory Committee**  
**Request for Information**  
**Broadband Network Solution for Monhegan Island**

Dear Internet Service Providers and other interested firms:

Monhegan Plantation is pursuing broadband infrastructure to provide high-quality internet service to our island community in Lincoln County, Maine. Below is a Request for Information that will begin the process of finding internet service providers or other partnering firms who wish to construct and maintain a broadband network that will meet or exceed the national standards and provide quality, consistent internet connection to the Monhegan community.

The community has identified reliable, high speed internet connection as a top priority in order to maintain our historic blend as a vibrant fishing, art, and tourism dependent community, while continuing to attract new business growth. In addition to furthering economic development goals, we believe that a high-quality broadband network will improve quality of life prospects for current and future residents by expanding the digital capacity of the island school, increasing the island power plant's efficiency, and improving telemedicine capabilities. All of these improvements will allow our island community to keep up with the demands and benefits of an increasingly technology dependent world, while maintaining the natural and lifestyle related benefits of living on Monhegan Island.

Monhegan Plantation is exploring all sources of broadband funding, including but not limited to state, federal, and private grants and loans. We welcome any suggestions for cost sharing mechanisms that ensure both the community and internet service provider chosen to build and operate the network share in the risks and rewards of the project.

The Community Benefits Advisory Committee anticipates receiving responses by February 22, 2019 and having a network build completed by November 1, 2019.

Please direct your questions about the project to:

Jaye Morency, [jaye.morency@gmail.com](mailto:jaye.morency@gmail.com);

Dan DeBord, [ddebord@islandinstitute.org](mailto:ddebord@islandinstitute.org)

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## **1 Introduction**

The Community Benefits Advisory Committee, hereafter referred to as “CBAC”, is issuing this Request for Information (RFI) to obtain information about the construction of broadband infrastructure to serve Monhegan Island Plantation located in Lincoln County; hereinafter referred to as “Monhegan.”

Monhegan seeks information in order to help determine the interest of internet service providers (ISP) or other firms, hereinafter also referred to as “respondents,” to build infrastructure for bringing broadband to the community. This objective is further described in Section 3 of this RFI.

The Committee’s aim is to pursue a broadband solution that will meet three project goals.

1. 100% broadband service area coverage of all Monhegan Island Plantation residences and businesses
2. Minimum network speeds of 25/5 mbps, ideally with an ability to offer packages of up to 100 mbps symmetrical service in order to meet the USDA’s ReConnect grant program minimum and bonus requirement thresholds.
3. Improved network reliability with customer service response and plans from the ISP to address any network outage or individual subscriber issues within 24 hours. A procedure for issue acknowledgement and progress tracking must be in place.

In December of 2016, Monhegan Plantation prepared an assets and needs framework. That process pinpointed broadband as a high priority for the sustainability of Monhegan Island’s year-round community. The ultimate goal of this project is to install and maintain broadband infrastructure that will meet or exceed the national standards and provide quality, consistent internet connection to the Monhegan community.

This RFI further describes the community and the objective for which information is requested, in Section 3. A business model is proposed in Section 4. Responses should address all information requested in Section 5. The process and timeline for responding to this RFI is outlined in Section 2.

## **2 Response Process**

The following RFI schedule is anticipated:

January 18, 2019	RFI Issued
January 28, 2019	Questions Submitted to CBAC by Respondents
January 31, 2019	Responses to Questions Emailed to Respondents
February 22, 2019	Deadline for RFI Responses to be Received

Responses must be received no later than 5:00 p.m. on February 22, 2019. Please submit responses as a pdf emailed to Monhegan Plantation's First Assessor, Tara Hire, at [firstassessor@monheganplantation.com](mailto:firstassessor@monheganplantation.com), or in a sealed envelope marked to:

Tara Hire, First Assessor, Monhegan Plantation  
P.O. Box 322  
Monhegan, Maine 04852

All responses will be carefully considered, and respondents will be notified shortly of next steps. The target date for a decision is March 1, 2019. The right to discontinue these efforts, based on the responses to this RFI or other changes in circumstances, is reserved.

Respondents interested in submitting a proposal to build this broadband network should provide the information requested in Section 5. Responses will not be considered final or binding; however, respondents are strongly encouraged to submit information that could be used as a basis for negotiating an agreement. By seeking a buildout proposal from an ISP, we are able to entertain the possibility of said ISP partnering with us to then operate the network for delivery of broadband service to this community. Other firms are welcome to respond and are encouraged to provide information about partnering with ISP(s). Responses to this RFI will help the Monhegan community determine its next steps, which may involve either a bid process or the selection of a respondent for meetings where the potential for a public-private partnership will be explored.

## **3 Background and Objectives**

Monhegan Island is currently served by two ISP's, Consolidated Communications and Redzone Wireless.

Consolidated Communications (CCI) currently feeds Monhegan with a wireless internet connection from a tower in Rockland. They use a microwave dish to supply that bulk bandwidth that is then distributed by DSL copper lines to each home. There are three separate microwave connections that provide different services. One is for phone service, the second is dedicated to Broadband and the third serves the school and library and is currently maxed out and has no remaining capacity.

CCI reports that the DSL operates at a maximum capacity of 3/1Mbps, depending on the distance from the on-island equipment that powers the CCI system. Most homes are unable to reach these speeds, however. Previous reports indicate that DSL service covers 85% of year-round residents and 77% of seasonal properties.

The original provider of service currently offered by Redzone Wireless was Midcoast Internet Solutions, which was then acquired by GWI. GWI sold its fixed wireless assets to Redzone in 2016, and those assets included Monhegan Island. The current system includes the original microwave backhaul dish (now 10 years old) that comes from a Redzone owned tower in Rockland. The backhaul internet is fed to the tower by Consolidated Communications (CCI). According to Redzone, they currently have 13 subscribers on the island, down from a high of 25 (according to Monhegan documentation). The equipment has not been serviced or upgraded because of the lack of subscriber base that would justify a capital investment. Speeds of 15/3Mbps are theoretically achievable, but several users report that this is no longer the case. There have been outages that have lasted for several days, the latest being in November of 2018. Redzone technicians have not been on the island since the acquisition.

An exploration by town officials and the CBAC revealed no barriers that would preclude a new broadband system from being installed. No restrictions on utility right of way access currently exist in local ordinances. However, the majority of poles on island are not owned by the municipality, additional poles can not be used as part of the new infrastructure, and the current communications tower on island is owned by CCI. Therefore, any new network construction proposals must operate within these parameters by either constructing a new tower on island or working with existing infrastructure owners for tower or pole usage.

In the Appendix, please find a map of the island with the gravel roads indicated (Figure 1). In addition, there is a listing of all current addresses on island that could potentially become subscribers (Figure 2). Note that some business properties may actually reduce the number of connections given the higher capacity levels of each connection. According to our recent survey, there are only a dozen or so locations that have indicated they have no interest in the service. Pricing, speed and reliability will determine the final ‘take rate’.

### 3.1 Community Background

Monhegan Plantation is an island community in Lincoln County, Maine located roughly 12 miles off the coast of Port Clyde in Muscongus Bay. With a year-round population of approximately 45, which swells to as many as 500 during the height of summer, Monhegan has long been known for its famous history as the home of both a vibrant artistic community and strong fishing industry.

Anchor institutions include:

- Monhegan School
- Monhegan Museum
- Monhegan Plantation Power District Building
- Monhegan Plantation Municipal Office
- L Brackett & Son Grocery Store
- US Post Office
- Monhegan Memorial Library
- The Island Inn
- Monhegan House
- Shining Sails Bed & Breakfast
- Trailing Yew
- John Sterling Harbor House
- Monhegan Brewing Company
- Black Duck Emporium
- Fish House Fish Market

In addition to these community buildings and key businesses, the community has a number of fishermen, carpenters, caretakers, artists, and home business operators that work on island both seasonally and year-round. These residents require consistent, high quality broadband for video conferencing, file uploads, and financial management. Due to the high seasonal swings in population and network saturation related to the summer tourism industry, any network built on island would need to be flexible enough to accommodate a wide range in the number of network users at any given time.

At 513 acres, the island is small and rocky, with some of the highest seaside cliffs on the East Coast of the United States. The community is tightly packed around the harbor, with roughly half of the island containing residences and businesses, and the other half preserved as wild lands by the island land trust, Monhegan Associates, Inc. The ferry travel options are highly seasonal. Between May and October, boats run multiple times each day to Monhegan from Port Clyde,

Boothbay Harbor, and New Harbor. However, winter travel is much more limited, with only three round trip ferry runs from Port Clyde per week by the year-round mail boat, Monhegan Boat Line. Road traffic is limited, with only one and a half miles of gravel road on island. Due to the difficulty of transporting equipment to the island, Monhegan is willing to work with the installer of any new system and is open to providing on-island labor and equipment to accomplish tasks that would employ islanders, save money, and reduce costly barging trips for equipment and other tools necessary to help install a new internet system.

### **3.2 Operational Requirements**

Operational proposals must include the following:

- 1) Estimated “take rate” needed to make the operation of the network feasible for your company to take on the ISP operations.
- 2) Pricing structure for various speed levels. Price breaks, if any, for seasonal subscribers.
- 3) Price of connection at infrastructure rollout and estimated price should a subscriber later want to add service after operations have started.
- 4) Ongoing technical support plan including response times given island location. Would an on-island technical support person be hired?

### **3.3 Technical Requirements**

The proposed infrastructure submission must:

- 1) Meet both federal and state definitions of broadband and maintain those levels independent of seasonal peaks and valleys driven by seasonal subscriber usage. The quoted speeds must be consistent and reliable at all times.
- 2) Be capable of servicing each and every possible connection on the island. There are approximately 125 to 130 potential connections.
- 3) Disclose all necessary future equipment upgrades, and the estimated cost thereof, that would be required to maintain the broadband speeds defined in #1 for a 10 year period.
- 4) Clearly outline the backhaul network plan and 10 year sustainability of the backhaul network.
- 5) Propose a location for the microwave tower, cost, and any regulatory approvals required for installation and operation.

### **3.4 Project Timeline**

The goal is to bring a new broadband network to the community by the end of Fall 2019. CBAC plans to review all responses to this RFI and make a recommendation to the community for a vote on next steps at our Monhegan Plantation annual meeting in March. The committee

anticipates working to secure funding for the project throughout the spring and early Summer of 2019, with a target for breaking ground on the buildout by September 1, 2019.

## **4 Financial Model**

CBAC proposes a model where Monhegan owns the network, which is then operated exclusively by the ISP that builds it. However, the committee is willing to entertain all creative solutions for partnership proposed by the ISP that offer opportunities for cost saving while maintaining the previously described desired network speeds and reliability of service. CBAC also proposes that the provider own the risk of operating the network.

Monhegan does not envision a single-payer system. The ISP will be expected to bill individual customers. Monhegan expects subscription fees to be reasonable and comparable to elsewhere in Maine, with a range of \$40 to \$80 per month, and a take rate of 75-100%. CBAC is interested in entertaining responses that address how this subscription price could be achieved. CBAC plans to apply for grants and find options for affordability programs to help reduce the subscription cost to residents, which it will then advertise to the community. Providers are encouraged to describe how they would advertise their services. CBAC anticipates that the provider will provide advertising materials that can be shared electronically and in hard-copy.

CBAC will entertain responses that propose variations on this model. For the eventual buildout, we are currently investigating all potential sources of funding, at the private, local, county, state and federal levels.

## **5 Information Requested**

Please provide information requested in an organized and formatted manner, by following the outline of this Section 5, in order to help facilitate the review. Please do not refer to attachments or other materials or resources; instead, please include any additional information you would like to share within the appropriate sections of your response. This additional information may include:

- Any outcomes or conditions you consider to be essential or strongly desired in a potential partnership that you would like to highlight
- Any particular ways that your participation could provide value to the island
- Any information that you believe we should consider

The respondent must submit a cover letter signed by an authorized representative of the entity. The cover letter must include a concise summary of the response to the RFI; the legal name of the entity, its headquarters address, its principal place of business, its legal form (i.e. corporation, joint venture, limited partnership, etc.); and the names, addresses, emails, and telephone numbers of the principal contact(s) for all communications pertaining to this RFI.

## **5.1 Company Description**

Please describe your company, by providing the following information or experience:

- How long the company has been in operation
- The location of the field office closest to the island
- Technical, managerial and operational experience of the team, highlighting any key members as appropriate to this project
- How long the company has engineered internet infrastructure networks
- How long the company has constructed broadband networks
- How long the company has provided internet service
- The number of communities you serve
- The number of internet customers you serve and your retention rates
- How the company typically builds, manages, and maintains customer drops
- How customer service and troubleshooting is handled
- Any contract terminations and the reasons why
- Growth of the company in recent years
- How services are marketed and customers are recruited
- Services offered, including but not limited to, business and residential internet services and features, speeds offered and other measures of internet quality, subscription/take rates for your services, seasonal or bundling services offered, tiers of service and pricing provided, and technologies and equipment used
- The payment options available to customers and how billing and collection is handled

## **5.2 Example Project**

Please describe at least one past project where you have built and operated a broadband network for a similar rural area. Preference will be given to an example project which has successfully provided high-quality internet service to a rural area. In your description of past performance, please list:

- The number of premises covered and served



- Description of the physical environment (e.g., density of premises, terrain)
- Description of the network capacity (speeds, reliability, etc.)
- Description of the technology proposed and deployed
- Timeline of buildout and date of completion of the design
- Time period between agreement and completion of deployment
- Cost of deploying the network
- Number of internet customers
- The customer (community/client) contact information (name, title, phone, email, physical address)
- Key lessons learned that would be relevant for this RFI
- Two additional references with contact information

### **5.3 Proposed Project**

Please demonstrate understanding of the community background when providing information:

- How the project would meet the broadband goals described in Section 3 above
- The estimated timeline, including a proposed start date and a response to completion date for an engineered design proposed in Section 3 above
- Whether the engineered design(s) would target speeds of 25/5mbps, 100/100mbps, or higher
- Whether the cost of said design(s) would vary based on the proposed capacity of the network or speeds supported by the network
- The estimated cost for the engineered design(s)

The respondent is invited to propose service levels that they deem technologically and economically achievable; however, respondents should propose project(s) that at least meet the minimum speeds and other broadband goals described in Section 3.

### **5.4 Design Content**

The respondent should prepare a detailed description of what the engineered design(s) they propose to build would include. This should include details on what would be included for the following components and how these components will be addressed during design work:

- Synthesis of current assets and potential leverage points
- Consideration of possible bottlenecks in on-island and/or backhaul infrastructure, and how the proposed broadband infrastructure design(s) would address or avoid these bottlenecks

- Feasible points of interconnection with existing networks in the area, and other backhaul options
- Geographical and topographical network schematics, and an easy to use topo map for community meetings
- Necessary hardware and facilities
- Comparison of pole-attached, in ground, and on ground deployment
- Implementation plan, including any plans for phasing the build-out
- The potential service levels (speeds and reliability) offered by the designed network
- Financial Plan: One-time cost of infrastructure & implementation, minimum annual revenue required for operation, and expected annual operational and maintenance costs
- Quality assurance plan both on the design and potential construction/operation, including comment on providing network reliability, operator service, and responsiveness to system issues
- The capacity of the designed network, including potential for increased service levels after the initial network is built
- Other options for future service or network upgrades

### **5.5 Proposed Financial Model**

Please comment on the proposed financial model in Section 4 above, including availability and willingness after the completion date for community presentations. If there are any variations or exceptions that you would require to participate, please identify and explain them. The respondent is invited to state high-level terms for this financial model. Please provide any knowledge or experience of operating this financial model.

# Appendix

Figure 1

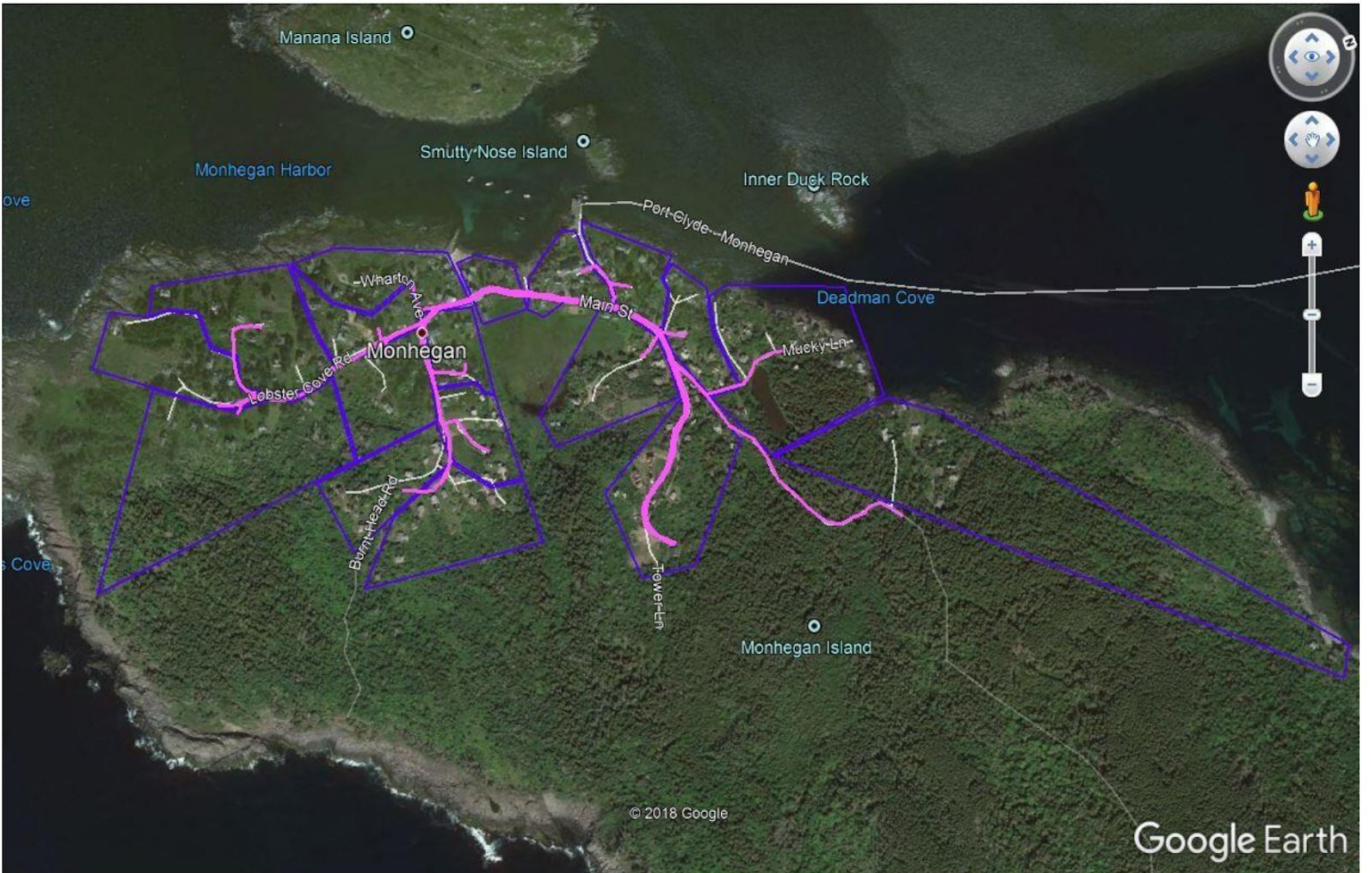


Figure 2

MONHEGAN ISLAND	Location, Street, #	Potential Connections
Alfred's Way 84	Lighthouse Rd, 110	Monhegan Ave, 141
Alfred's Way, 16	Lighthouse Rd, 115	Monhegan Ave, 161
Alfred's Way, 61	Lighthouse Rd, 20	Monhegan Ave, 215
Alfred's Way, 70	Lobster Cove 110	Monhegan Ave, 217
Bates Lane 45	Lobster Cove 145	Monhegan Ave, 222
Bates Ln, 25	Lobster Cove 260	Monhegan Ave, 256
Bates Ln, 35	Lobster Cove 295	Monhegan Ave, 260A
Black Head Rd 145	Lobster Cove Rd 150	Monhegan Ave, 260B
Black Head Rd 300	Lobster Cove Rd 185	Monhegan Ave, 300
Black head Rd 350	Lobster Cove Rd 20	Mooring Chain Rd, 120
Black Head Rd 364	Lobster Cove Rd 200	Mooring Chain Rd, 30
Black Head Rd 366	Lobster Cove Rd 240	Mooring Chain Rd, 45
Black Head Rd 368	Lobster Cove Rd 282	Museum Lane 40
Black Head Rd 65	Lobster Cove Rd 30	Ocean Ave 20
Black Head Rd 75	Lobster Cove Rd 32	Ocean Ave 24
Black Head Rd, 143	Lobster Cove Rd 40	Ocean Ave, 111
Black Head Rd, 310 & 320	Lobster Cove Rd 50	Ocean Ave, 140
Black Head Rd, 330	Lobster Cove Rd 55	Odom Place 55
Black Head Rd, 40 & 50	Lobster Cove Rd 70	Odom Place 85
Black Hed Rd, 52	Lobster Cove Rd 80	Odom Place 9
Blackhead Rd 85	Lobster Cove Rd, 55	Pebble Beach 1 & 2
Blackhead Rd 95	Loster Cove Rd 175	Prospect Hill
Boody Lane	Manana 1	Sterling Cove 9
Boody Lane 1	Manana 2	Sterling Cove Rd, 75 & 79
Boody Lane, 30	Martin Lane 40	Sterling Rd 45
Burnt Head Rd 112	Martin Lane, 10 & 15	Tribler Rd 111
Burnt Head Rd 2	Meadow View Lane 10	Tribler Rd 42
Burnt Head Rd 34	Meadow View Lane 22	Wharf Hill Rd (L) 33
Burnt Head Rd, 20	Meadow View Lane 45	Wharf Hill Rd (R) 33
Court St 15	Meadow View Lane 5	Wharf Hill Rd 110
Court St 2	Meadow View Lane 50	Wharf Hill Rd 130
Court St 30	Meadow View Lane, 15	Wharf Hill Rd 30
Court St, 35	Monhegan Ave 1	Wharf Hill Rd 31

Deadman's Cove	Monhegan Ave 10	Wharf Hill Rd 33 & 50
Fish Beach Lane 54 A	Monhegan Ave 111	Wharf Hill Rd 70 -72
Fish Beach Lane 61	Monhegan Ave 121	Wharf Hill Rd 71
Fish Beach Lane, 35B	Monhegan Ave 150	Wharf Hill Rd 71
Hilltop Lane 20	Monhegan Ave 150	Wharf Hill Rd 81
Hilltop Lane 50	Monhegan Ave 170	Wharf Hill Rd 94
Horn Hill 135	Monhegan Ave 191	Wharf Hill rd, 90
Horn Hill Rd 45	Monhegan Ave 201 A	Wharton Ave 1
Horn's Hill Rd, 30	Monhegan Ave 201 B	Wharton Ave 110
Ice Pond Rd 10	Monhegan Ave 224	Wharton Ave 120
Ice Pond Rd 110	Monhegan Ave 225	Wharton Ave 130
Ice Pond Rd 120	Monhegan Ave 240	Wharton Ave 51
Ice Pond Rd 25	Monhegan Ave 248	Wharton Ave 71
Ice Pond Rd 70	Monhegan Ave 258	Wharton Ave 90
Ice Pond Rd 90	Monhegan Ave 260 C	Wharton Ave 92
Lighthouse hill Rd 170	Monhegan Ave 262	Wharton Ave 94
Lighthouse Hill Rd 220	Monhegan Ave 41	Wharton Ave, 152
Lighthouse Hill Rd 25	Monhegan Ave 43	Wharton Ave, 61
Lighthouse Hill Rd 5	Monhegan Ave 80	Wharton Ave, 61
Lighthouse Hill Rd 90	Monhegan Ave 90 A	Woods End 20
Lighthouse Rd	Monhegan Ave 90 B	Woods End lane 60
	Monhegan Ave, 131	Wood's End Lane 65