Community Technology Plan

City of Eastport

Submitted by:

Mark Ouellette & Susan Corbett

Axiom

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207.255.0679

mark@connectwithaxiom.com
susan@connectwithaxiom.com

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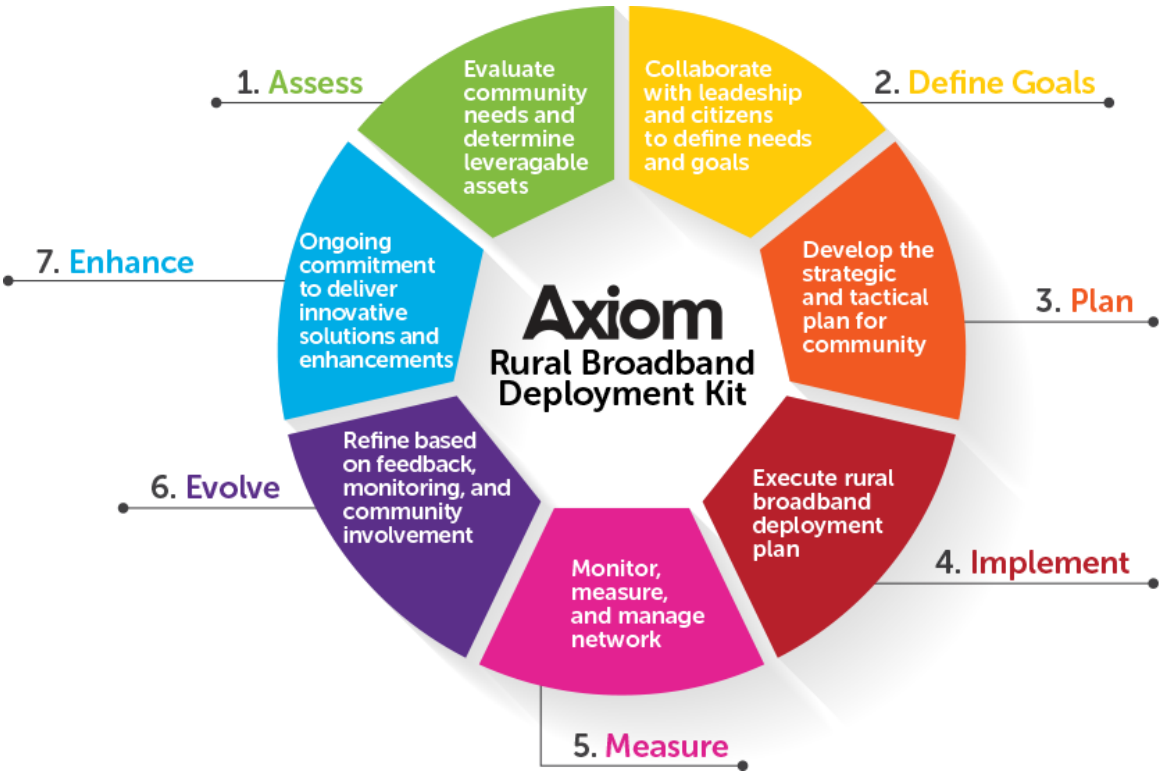
Study Background and Structure

Over the past few years Eastport has experienced a renaissance with a burgeoning arts and cultural district, downtown revitalization and strong leadership at City Hall. In addition, a group of passionate citizens has led an effort to capitalize on the promising transformation by forming a telecommuter project that hopes to not only support people who live in Eastport and work elsewhere, but to project to the world and attract people to come and live in the community who can work anywhere, and are attracted to Eastport's quality of life.

It was in this context that Axiom was asked to create a roadmap to help Eastport become better connected and appeal to the kinds of entrepreneurs that the telecommuter group and Eastport officials hoped to support and entice to this special place.

To create that plan, we followed a Rural Broadband Deployment Kit that Axiom has developed to help communities move through the process of decision-making and ultimately deploying. The steps are described below.



Axiom is a pioneer in rural broadband deployment and we are sensitive to rural citizens' desire to be both digitally connected but geographically remote. We have developed the Axiom Rural Broadband Deployment Kit to do just that.

1. Assess- **Evaluate community needs and determine leverage-able assets**
   Before Axiom makes any recommendation to a community, we do a thorough investigation of the assets that are in the community that could be leveraged.

- Meetings with current service providers to determine if these assets can be leveraged
- Investigation of current Broadband infrastructure
    - Location of fiber-optics
    - Locations of towers that might serve the community with wireless technology
- Review of any community barriers
    - Right of way laws
    - Moratoriums or height restrictions

2. Define Goals- **Collaborate with leadership and citizens to define needs and goals**
Through a series of meetings with community, business and civic organization leaders as well as strong community input, define what the community specifically wants to achieve and begin to define roadmap to achieve goals.

- Engage the Broadband committee made up of diverse group of City/regional officials and community leaders
- Reach out to community with a survey to understand community concerns, cost of current service and where it might be lacking
- Business surveys and meetings- work with Broadband group to identify key businesses for interviews and identify larger list of businesses through Chamber or other organizations to send a business specific survey

3. Plan- **Develop the strategic and tactical plan for community**
Once goals are defined, develop a gap analysis that describes what the community has for existing assets that can be leveraged, articulates the goals of the community and defines what needs to occur to reach their goal through a step by step roadmap that can become part of a communities' Comprehensive Plan.

- Develop gap analysis
- Road map that can be implemented over time in phases, or all at once
- Identify resources to help community be ready for implementation
- Discuss private-public partnerships and other implementation models

4. Implement- **Execute rural broadband deployment plan**
Work with Axiom to execute a clearly defined public-private partnership that spells out each party's role and responsibility.

- Determine build out timeline to complete project
- Work with Axiom on a revenue sharing model and ownership of network
- Axiom would offer 3 months of Digital Literacy classes as part of implementation to help community understand new service and how to leverage it
- Marketing campaign in community undertaken to boost take rates
- Hire local citizen to assist Axiom with customer relations/installations and technical service questions

5. Measure- **Monitor, measure and manage network**
Develop service level metrics to determine if the new network is meeting goals of the project

- Axiom begins to operate network and assumes all responsibility of network, as defined in the Service Level Agreement with the community

- Axiom is a full-service Internet Service provider that handles all of the billing, technical calls, network monitoring and field technician work for the community

6. Evolve- **Refine based on feedback, monitoring and community involvement**
   Over the first year of operation work closely with community Broadband Team and customers to monitor and improve service based on feedback

   - Ensure that goals are being met and that changes can quickly and seamlessly be made as issues or concerns arise

7. Enhance- **Ongoing commitment to deliver innovative solutions and enhancements**
   With the technical evolution occurring at breakneck speeds, we want to pause and make sure from time to time that the Digital Divide will not begin to occur again and to ensure that the technology is regularly upgraded as needed to reach changing needs as the relationship with the community and Axiom matures

   - A commitment by Axiom to do a thorough review of network technology in community every three years
     - Discussion with community about any technology changes that might be considered
     - Ongoing commitment to partially fund a Community Technology Fund that could help fund enhancements to the network infrastructure to keep it current and operating at maximum efficiency

The project that we began follows the process of the first **3 steps**, and includes a brief paragraph on how to approach public-private partnerships if the City was to build new networks that would be subsidized with public dollars (Part of Step 4: Implement).

Executive Summary

The City of Eastport and many parts of the State of Maine are struggling with internet connectivity that is not meeting many of their citizen's needs. Internet connectivity is essential to the way people live today. We heard it throughout our time working with your community… to help businesses grow and promote economic development, to allow the elderly to age in place, to close the homework gap for young people, attract or retain telecommuters or to simply enhance entertainment opportunities and e-commerce… current connectivity was either lacking or at speeds and reliability that restricted important functions in today's digital world.

In order to attract highly skilled, educated artisans, business people and engaged citizens that would contribute to the fabric of Eastport, it is evident that having good connectivity is essential. When we started this project, the City of Eastport and the Broadband Committee had three goals:

- ✓ Ensure that all underserved areas were given better coverage
- ✓ Build on the momentum in downtown revitalization
- ✓ Downtown Hotspot as a first achievable step

During the planning project two developments occurred that are worth noting. Both of the incumbent providers in the community, FairPoint Communications and Charter Communications (formally Time Warner Cable), were undertaking upgrades in Eastport that was going to change Axiom's planning strategy because system enhancements by both carriers would give the majority of citizens the opportunity to have more choices to improve their service.

Extend current provider coverage

Both FairPoint and Charter have upgraded service in the City of Eastport. As you will see from the coverage maps we provided in Appendix A-1, each of the provider upgrades leave out a part of the City. However, the part of the City that each provider is not serving (in the case of Charter) or needs to be upgraded (in the case of FairPoint) is being served by the other provider.

In order to promote competition in each of the areas that did not benefit from an upgrade or extension of service, both FairPoint and Charter are ready to work with the community to extend or enhance service. In the case of FairPoint, the recently completed upgrade will allow many to improve service to 25Mbps and extend to more remote areas where citizens will be able to receive a 10Mbps connection. This is a substantial upgrade for much of Eastport; however, there is one part of the City that did not receive the upgrade. A part of the community that is off of Rt. 190, just after passing over the bridge from Pleasant Point and before you enter into the downtown area of Eastport, where the Old Toll Bridge Road is located. Eastport could work with FairPoint and fund, or partially fund the upgrade to their Remote Terminal (RT) that serves this area and bring up to 25Mbps speeds to these residents. However, currently these homes have Charter service available to them with new speed levels of 60Mbps or 100Mbps. Similarly, a section of Eastport does not currently have Charter service in the area of the airport. Charter is open to working with the community to extend service to this area, however, this area currently has upgraded FairPoint service of 10Mbps to 25Mbps.

For both FairPoint and Charter, some outside investment would be required to extend or upgrade service into each of these areas. For enhanced FairPoint coverage, upgrading the Remote Terminal box is estimated at $50,000-$70,000. For extended Charter coverage, the price is based on a number of factors and is priced on a case-by-case basis.

Fiber

Using fiber optics gives the user the best connectivity available; allowing for near unlimited speed upgrades to a Gig (1000Mbps) and potentially beyond. It also has the best reliability and the least maintenance. We also believe that once fiber is built in the community, it will be an asset for many, many years that will require little need for upgrade if built for future capacity needs. Each of the fiber proposals allows for expanding the fiber network in the future as funding is available. Fiber also allows for access to all, meaning the connections are the same and allow every subscriber to receive equal service, if they choose. Last, we believe that fiber allows residents to cut the cord of other types of services they are receiving now and potentially reduce the overall cost of their current telephone, TV satellite service and internet. However, it is also the most expensive solution and is limited to wherever the new fiber line passes.

The Downtown Business District

The Downtown Business district has been at the heart of Eastport's revitalization and deserves special attention to keep it growing and thriving. Fiber connections will only enhance the appeal of locating a business in the downtown. Axiom has developed two proposals for fiber, the first recommendation connects fiber to the Three Ring Binder on Route 1. The second option provisions an internet connection from one of the two carriers (FairPoint or Charter) right in the downtown Water Street area. Both proposals would serve the businesses along Water Street.

Fiber Plan: Three Ring Binder

Our proposal will run fiber from the Three Ring Binder from Route 1, to Washington Street and across all of Water Street. This project will connect to City Hall, will support the 15 Sea Street redevelopment of the former American Can Company factory, and connect The Tides Institute and all businesses along the Water Street business district. This will allow fiber connections all along the route from Route 1 and could serve up to 100 homes and 30 plus businesses.

As part of the project that extends fiber from Route 1, we would also recommend building fiber down Rt. 190 to the entrance of the Port Authority. As one of the main anchors of regional shipping, and given its strategic importance to the State of Maine, having high-capacity connectivity will help enhance the Port's business plans.

The cost of this proposal is $794,000

Refer to Appendix A-3a for a cost breakdown and maps.

Fiber Plan: Water Street/Downtown Business District Connection

Alternatively, a smaller scope project would serve the immediate downtown Water Street area and the businesses district along that street. This would save significant cost by eliminating the expense of running fiber from Rt. 1, to Water Street. However, the tradeoff of a smaller project would

eliminate the potential to connect approximately 100 homes along the fiber route from Route 1 down to Water Street or connect the Port Authority down Route 190. The fiber build would strictly serve the downtown business district along Water Street.

Either of these projects would introduce fiber optic connections into Eastport and both projects could be expanded as resources become available.

Total cost estimate of downtown fiber build: $134,000

Refer to Appendix A-3b for the cost breakdown and maps.

Benefits and tradeoffs of fiber optics to consider:

- ✓ Very reliable, not susceptible to interference
- ✓ Virtually unlimited speeds available
- ✓ System, once in place, will last for 20 plus years with very minimal upgrade needed
- ✓ It can be expanded to serve other parts of the city
- ✓ Its more expensive than any other solution

Wireless

As an alternative or an enhancement to the Fiber plan, Axiom also has created a wireless solution for Eastport. This type of solution has several advantages, and several disadvantages the community should consider. This type of system would allow for increased speeds across the network, allow coverage into parts of the community now that currently do not have internet or have very limited internet speeds, but would require two new towers to be built in the community. At the same time, coverage to every home cannot be guaranteed because of geographical or topological conditions that are hard to plan for until service hookup is attempted. This type of system is very reliable, but not as reliable as fiber and not easily upgradable without significant resources at some point in the future.

The wireless proposal will serve a majority of the homes, while the fiber will be much more targeted, only covering those homes and businesses passed along the fiber route. The proposed wireless solution will cover a majority of Eastport, giving end users another choice for service.

Benefits and tradeoffs to consider:

- ✓ Cost is less than fiber
- ✓ Coverage is near ubiquitous but cannot be guaranteed to every home because obstructions can prohibit the signal from reaching some homes
- ✓ Reliability is very good but more susceptible to interference
- ✓ This solution will allow good, strong streaming of video, but with some limitations if multiple devices are being used
- ✓ Requires two towers to be built in community
- ✓ Highly competitive area with uncertain business model

Axiom is very familiar with this type of deployment and this can be a solution. For many that are currently subscribed to another service, this will bring speeds to line of sight subscribers to 50 Mbps and higher, and those that are obstructed between 10/1Mbps or 20/2Mbps or greater, a significant increase of service to some parts of the community, but not so much to entice some community members to switch if they currently have service they are happy with. It is estimated that approx. 20% of the 670 households (2010 census) in Eastport would take the wireless service, which is lower than the industry standard of 30% due to the existing services already available throughout the city. This gives us an estimated count of 130 homes and businesses that would be interested in a fixed wireless service.

Given the two other providers in the City of Eastport, Axiom would recommend wireless as a part of the solution but not the whole solution for the community. Wireless could help serve high cost areas of the community effectively, but would limit those subscribers to speeds that would be different from those able to access fiber, this solution whether for the whole community or part of a hybrid solution to reduce cost was developed before upgrades were announced, and is a good comparison against the cost of fiber and give the community an additional option to serve last-mile customers in difficult to reach areas.

Total cost estimate for a wireless solution: $665,000

Appendix A-4 provides some maps showing the potential coverage areas each tower would able to cover along with a breakdown of total cost mentioned above.

Hotspots

Axiom and the City of Eastport were excited about the possibility of providing free service in the downtown from the library. Because of continuing federal restriction on the connection to the library, we did not believe there was an alternative available that could supply the level of bandwidth necessary to provide the end user a positive experience. However, with the recent upgrades to Charter Communications service, it will be possible to revisit the hotspot conversation.

Cost estimate for a single hotspot: $3000.
Starting year 2: $1000 maintenance fee

Note: What is not included in this pricing is the actual monthly cost, which will run between $50-$110/month, which will need to be paid for, typically, from a sponsor or the community itself. Axiom is experienced in this type of deployment and can discuss in detail different options to help support a Hotspot deployment.

Appendix A-2 provides a more detailed description of a hotspot deployment in Eastport.

Digital Inclusion

A Digital Inclusion plan, if funded and implemented, is a direct investment in Eastport citizen's future and can bridge the Digital Divide for residents being left behind. By providing direct training for businesses and community members to learn how to better leverage an internet connection and on line resources and services, individuals are given the opportunity to advance their own skills. At Axiom, we believe an internet connection is much more than a fast connection- it's about people's livelihoods, education and well-being.

A Digital Inclusion Plan and Budget is included in Appendix C-1 and C-2.

The Steps

Step 1: Assess

There are two providers of Broadband Internet in Eastport. Both have recently upgraded service in their current service area in the community and can offer much more robust internet speeds. Charter serves most of the community, but has some service gaps. FairPoint's recent upgrades did upgrade 80% of their service in the community, but leaves a section of the community with old technology that limits speeds and reliability.

FairPoint Communications (FPC)

FairPoint Communications offers a variety of home and business solutions at different price points and speeds. Because they are copper to the home or business, their speeds are typically limited by the distance from their equipment that is located in what they call a central office (it's not really an office, just a place where their equipment is located) or a remote terminal (a smaller box on the side of the road), typically approximately 3 miles from the central office that pushes the signal beyond the 3-mile limit to more remote coverage areas.

When we began the process of interviewing the providers, by their own admission, FairPoint service was substandard. Many parts of the community were receiving speeds of 3Mbps or less and even in more dense areas; service was not up to FairPoint standards. Initially, it was unclear if or when FairPoint might invest Connect America Funds (CAF), to the City to upgrade their service. However, according to FairPoint, Eastport was not eligible for this investment, which made it even more surprising when FairPoint came back to Eastport to announce that they had, in fact, upgraded almost all of their facilities in the community, bringing speeds between 25Mbps and 10Mbps. They described one Remote Terminal that did not receive the upgrade, but are willing to work with the City to complete that work. These upgrades are a substantial increase in speeds that FPC was previously unable to achieve. Before the upgrades 75% of the homes in Eastport could only qualify for a 3Mbps internet service. After the upgrades, over half can receive 25Mbps, and 80% can receive 10Mbps or more of service.

In addition to the upgraded service in the majority of Eastport, FPC also offers what they call Carrier Ethernet Service (CES); this is a product that delivers up to 10Gigs of service (1 Gigabyte= 1000Mbps) through a direct fiber connection. This type of service is offered to businesses requiring this type of connection. CES costs are priced on a competitive, case-by-case basis and vary depending on a number of factors and are difficult to estimate.

Charter Communications/Spectrum

Charter Communications is the cable franchise provider in Eastport. They are open and interested in expanding service by working with the community to extend service to areas not currently in their operational footprint in Eastport. Because Charter Communications is a cable company first, they deliver their signal to the home through coax cable that can supply higher speed internet, as well as video and phone from longer distances. Charter Communications has recently upgraded its system and will offer only two packages to customers, a 60/5Mbps connection and a 100/10Mbps for $64.95 and $104.95 a month respectively. Charter Communications will also be rolling out a low cost option for families on reduced lunch programs or receive Supplemental Security Income (SSI) that will offer a 30/5 connection for $14.95 a month. Current Broadband Tier levels and pricing will be grandfathered, so those not interested in upgrading their internet plan can stay on their current speed and pricing plan. The new speed offerings are a significant upgrade from Time Warner speeds that current customers are familiar with.

Charter is also able to work with businesses to deliver customized fiber solutions on a case-by-case basis, and can very creative with this service. Pricing is based on a number of factors and Charter's representative suggests calling them directly to see what options and pricing might be available.

Other Broadband Providers

Satellite service through a provider like Hughes Net is also available but is metered (you can only use so much before incurring an overage charge, or slowed down substantially) or have limited bandwidth that can make it difficult to view streaming content or conduct business activities online when the system is stressed and creates bottlenecks that slow service.

Step 2: Goals

Eastport from the beginning was looking to create achievable goals for the community. From meetings with town officials and the Broadband Committee the goals were:

- ✓ Better service to underserved parts of the community
- ✓ HotSpot for the downtown
- ✓ Fiber in the downtown area of Water Street and the City Hall
- ✓ Better Connectivity was needed to attract and support telecommuters

After understanding more fully the upgrades that both incumbent carriers were making, we are confident that a careful, phased approach is desirable.

To supplement and inform the goals of the committee a Business and Community survey were distributed.

Business Survey Highlights:

- 52% of businesses indicated they would increase revenue if they learned to work or sell online more efficiently
- 44% said they would increase revenue if they understood and implement the latest on line tools
- Almost 60% said they were interested in learning about cloud based services that might help their business
- 50% of business respondents said that Internet speeds had not kept up with their needs
- 40% of businesses allow employees to work from home
- 60% of businesses have a training need for computer skills
    - QuickBooks
    - Excel Spreadsheets
    - Facebook for business

Community Survey Highlights:

- 81% of respondents are not happy with their current service
    - Too expensive
    - Not reliable
    - Slow
- 70% of respondents said they were not interested in paying for better speeds or reliability
- Almost 85% said they were frustrated working from home with their current internet connection
- 41% think more people would live in Eastport if there was better Internet for them
- 50% said visitors would stay longer if good Internet was available to them
- Over 80% were interested in learning more about the possibility of creating a dedicated business or computer center with high speed internet

Takeaways from the surveys:

Takeaway: While not an overwhelming number of businesses or community members took the survey, we believe those that did added important clues as to what solutions might be offered. Because many of Eastport residents are on lower or fixed income, price sensitivity was very important, and even given higher speeds, we are not sure if community members would take advantage. Given the increased service levels of both Charter and FairPoint, we are not inclined to suggest a new municipal network be built.

Takeaway: The City might look for funding to help their local businesses and citizens learn on-line skills. The Digital Inclusion program that is part of this report is actionable, and we would encourage the community to set a goal to find outside funding to help businesses get the skills they need to succeed.

Takeaway: Installing a downtown hotspot will help attract both locals and visitors and can be a step toward validating a need for a business center.

Step 3: Recommended Plans

Plan #1: Extend/Enhance current provider networks:

FairPoint Communications (FPC) has done an extensive upgrade of its facilities in Eastport. This has given Eastport residents a measurable difference in the type of service available to them.

FPC expended funds were used to upgrade a majority of their equipment in Eastport, a small section just off of Rt. 190 entering town did not receive the upgraded equipment. FPC has indicated a desire to work with the town to upgrade this equipment. A Remote terminal is typically a box that holds equipment that will allow FPC to extend its coverage beyond the three-mile limitation their current technology allows. This upgrade would allow service to increase to 25/2Mbps up to a mile around the Remote Terminal and up to 10/1Mbps up to three miles from this terminal.

Generally priced between $50,000 and $70,000 to upgrade, this would give this part of the community upgraded speed and reliability that the rest of Eastport residents with FairPoint service are able to access.

Charter Communications service footprint covers the majority of Eastport, but has a gap in service toward the airport and Deep Cove Road. Charter is interested in expanding service to areas they currently do not cover, but would need some level of subsidy from either a ConnectME grant or other outside source to subsidize the expansion into areas that currently do not meet their deployment criteria. Because it is unclear what if any areas the community might be interested in expanding their service, these discussions should occur directly with the Charter to determine feasibility and cost.

Note: Areas currently not covered by Charter are covered by FairPoint Communications and conversely, those areas that were not upgraded by FairPoint are covered by Charter. Our recommendation would be to discuss fully all options with both carriers, if the City of Eastport would like to expand or enhance either carrier's service.

Maps with approximate coverage areas for both Charter Communications FairPoint Communications are located in Appendix A-1.

Plan #2 Downtown Hotspot

Community Hotspots are open access networks that allow citizens in your downtown or other public spaces access to the Internet. This is a simple, straightforward way to help your city get more connected.

- Allows for user to access email and other online content from any device- smartphone, computer or tablet… without using cellular data plan
- Can customize user experience to inform them of local amenities such as:

    - Public Restroom locations
    - Restaurant offerings
    - Other downtown businesses, such as a pharmacy
    - Tourism related attractions, parks, boat launch, tours
- Can be paid for by sponsor who is allowed to advertise their business through the portal
- Expect 1000s of unique users in the first year (Really!)

Many community leaders question this type of service when most folks have smart phones and can access this type of data using the existing cellular network that phones run on. Downtown Hotspots offer several advantages to traditional cellular networks. First, a Hotspot tends to allow for faster downloads, which makes surfing the web much easier and allows folks to work from the downtown using other devices, like their laptop. Second, a Hotspot allows the community to create a landing page, which can direct people to community assets or amenities. And last, it allows the community to work with a local sponsor to cover the cost of deployment. These advantages make community hotspots a low-cost, smart first step to get the community better connected.

Pricing will depend on your downtown configuration and where you would like coverage, but a good general rule would be $3000 for a single install.

Two other costs to consider will be electrical power and Broadband access. Just like residential or commercial Broadband service, Hotspots require a Broadband connection to work. So just like at your home or business, we would purchase that monthly, on behalf of the town or sponsor from any of your current providers in your community. Typically, there is a one-year commitment to purchasing Broadband, which the town or sponsor would be responsible for. Those costs can vary depending on the provider but a good rule of thumb would be $50-$110/month. Electrical cost can also vary, but is nominal.

We would suggest signage in the downtown letting people know about the hotspot. If you were to work with one or more of your downtown businesses to get sponsored, they could be offered an advertising opportunity on your signage, if you so choose.

The bottom line is that Community Hotspots are an affordable, convenient way to help visitors and residents easy, seamless connectivity.

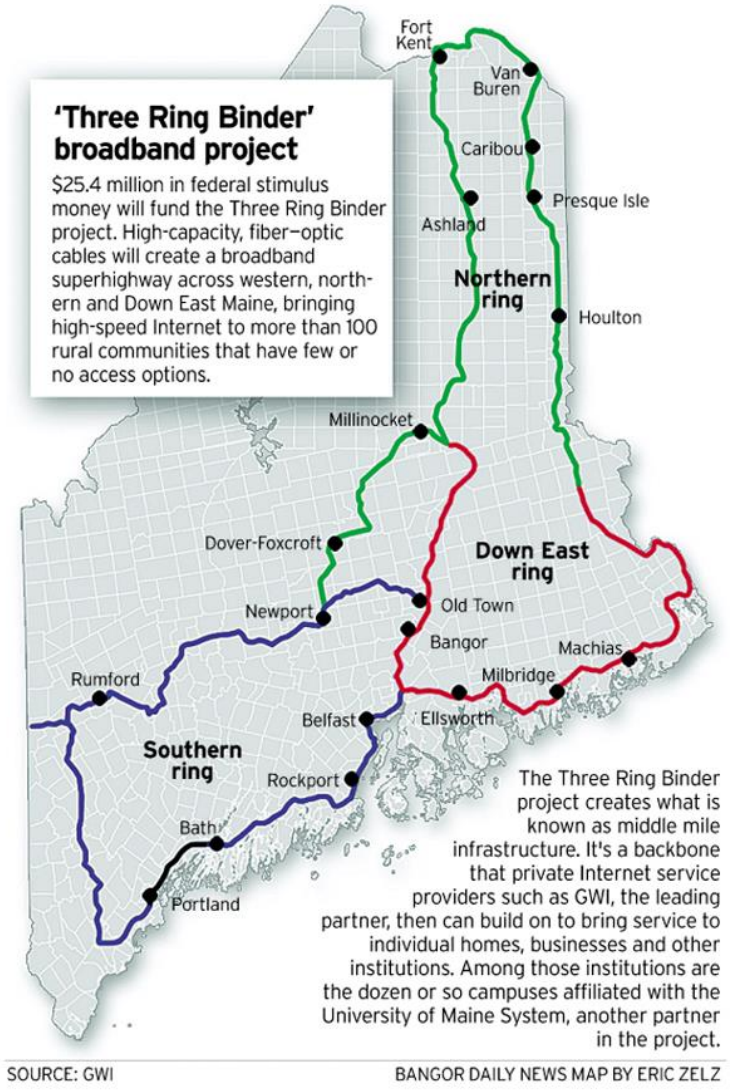
Community HotSpot plan is located in Appendix A-2

Plan #3 Fiber

Fiber Optic connections are the most reliable, have the most capacity to deliver speeds far beyond those offered in the residential marketplace today and could bring value for over 20 years without needing an upgrade. The technology uses glass to push large amounts of bandwidth to locations. This is the technology used by the Three Ring Binder and other carriers to distribute Broadband Internet throughout Maine. We offer two potential plans, one uses the 3 Ring Binder, and the second serves a much smaller area and focuses exclusively on Water Street and downtown businesses. Both require a high capacity Broadband connection as described in the next section.

Backhaul (getting internet capacity to Eastport)

Backhaul in the Internet Service Provider vocabulary refers to the total amount of Broadband Internet that would need to be transported from the backbone or core network (think of the Three Ring Binder) to a point in Eastport *before it is distributed to the homes and businesses in the community.* What is important about backhaul is the ability to increase the amount of Broadband Internet over time to keep up with community demand as Internet use exponentially increases over the span of 10 or 20 years, once this project is completed. Fiber Optic connections allow for backhaul to increase over time, without any upgrades to the actual equipment.



The advantages of this plan would be that the community would create a foothold of fiber connectivity that can serve individual homes and businesses along the route of the fiber, by running the fiber down from Route 1, this plan allows for many more potential hookups to every home and business that is passes. Speeds are virtually limitless, providing for up to a Gigabyte (1000Mbps) of service, if someone desires that level of connectivity.

Alternatively, both FairPoint and Charter Communications can deliver high capacity wholesale service directly to the downtown. By focusing on the Water Street business district, other parts of the community would not initially have the opportunity for fiber service, as described in the project that would connect to the 3 Ring Binder on Route 1, but this solution is attractive because of the lower cost and the ability to expand the project to other parts of the community.

If the City were to consider the connection to the 3 Ring Binder:

- ✓ Many more homes and the Port of Eastport could potentially be served
- ✓ Makes expansion less expensive in the future
- ✓ Covers all of the Water Street/Downtown Business District

- ✓ Is significantly more expensive and potentially harder to achieve without outside federal or state resources

If the City were to consider provisioning a connection from FairPoint or Charter:

- ✓ Focus would be on approximately 30 businesses along Water Street
- ✓ Enhances continued efforts to revitalize downtown
- ✓ Reduces cost but at the expense of coverage area

Plan mapping for both projects and cost breakdown located in Appendix A-3

Plan #4 High Capacity Wireless for all of Eastport

Wireless systems are typically less expensive than fiber optics, and offer a more ubiquitous coverage area, because it is not restricted to the location of a cable running by your home. This "point-to-multipoint technology" can serve multiples of locations from a single point on a tower. This type of connection is often referred to as Fixed Wireless, meaning that signal is coming from equipment located on a tower to a radio that is "fixed" at a home or business to receive the signal. This type of technology is typically used as a considerably less expensive option to serve areas that are remote and difficult to reach. At the beginning of this process, it was clear that significant parts of the community were underserved, however, with the upgrades by FPC and Charter, it is less likely that this plan is needed and serves as a comparison, for cost and coverage area of our fiber proposal.

Wireless systems, while less expensive, are less reliable than fiber optics and cannot be upgraded to increased speeds to the levels that Fiber can be. It is likely that any wireless system will need upgraded equipment in 5-10 years.

The wireless system plan and coverage map can be found in Appendix A-4

Step 4: Implement -Public-Private Partnership

Public-Private partnerships are a defined way for the City of Eastport to take an active role and derive value for its community with this type of arrangement. While ongoing investments around better broadband are encouraging, they are based on a business model or federal grant funding that the communities do not have an active role. Axiom believes that working with any potential new provider should include conversations about:

- Revenue sharing models
- Shared risk and shared rewards
- Strong community or regional entity involvement on all aspects of build out
- Commitment to eliminate barriers to deployment

These types of arrangements can take many forms, and many communities are wary of such arrangements because they feel they do not have expertise in this area. Others feel strongly that the current relationships with providers in their community are not as collaborative as they would like them to be. In the case of Eastport, any new building of infrastructure will need an internet provider

to operate it; this is where a Public-Private partnership might be negotiated, especially if public funds were expended to assist with the capital cost of the infrastructure. Some Broadband providers have begun to develop frameworks for these types of arrangements and examples in Maine and around the county are emerging.

Final thoughts

Eastport finds itself at an interesting crossroads. On the one hand, significant upgrades by the current internet providers should satisfy the majority of users for some period of time. With relatively small amounts of dollars, each of the two provider's services can either be expanded or upgraded. However, the two fiber plans we have proposed allow for unlimited upgrades to service, are much more likely to stand the test of time and build on the momentum that the community has created for itself. With a Gig network in place, we imagine the work of City leaders and the telecommuting group to attract the types of families, businesses and residents that deliver on Eastport's promise as described on the Eastport telecommuters' website:

> Eastport is one of Maine's greatest gems. Its close-knit and vibrant community offers an idyllic lifestyle for many location-independent families. Numerous self-employed or remote workers have made Eastport their home in recent years, and it may just be the perfect fit for you.
>
> Fresh, local produce and restaurants. Small, well supported schools. Lively youth sports. Community events. Coastal living. Renewable energy and industry. An artist's mecca.
>
> **This is Eastport.**

Appendix A-1

Existing Vendor Coverage Areas

The following map shows an estimated coverage area of the FairPoint DSL service area in Eastport. This map is meant to provide a general idea of service levels in the area and not to be used as a definitive method to determine broadband speeds at a specific location.

Orange shaded area – up to 25M/2M | Magenta shaded area – up to 15M/1M | White shaded area – up to 10M/1M

The following map shows the areas (yellow shaded) **NOT** covered by Charter/Spectrum's Cable service. Due to Charter/Spectrum's extensive cable network it is much easier and quicker to show the areas not currently covered by their cable lines.

Appendix A-2

Eastport - Downtown Hotspot

In looking at the town of Eastport it seems obvious that one location stands out the most as a potential site for a Hotspot and that is the downtown along Water St. Starting at the intersection of Boynton St and ending around the intersection of Key St., this area has the largest cluster of storefronts and restaurants, which make it an ideal location for a hotspot.

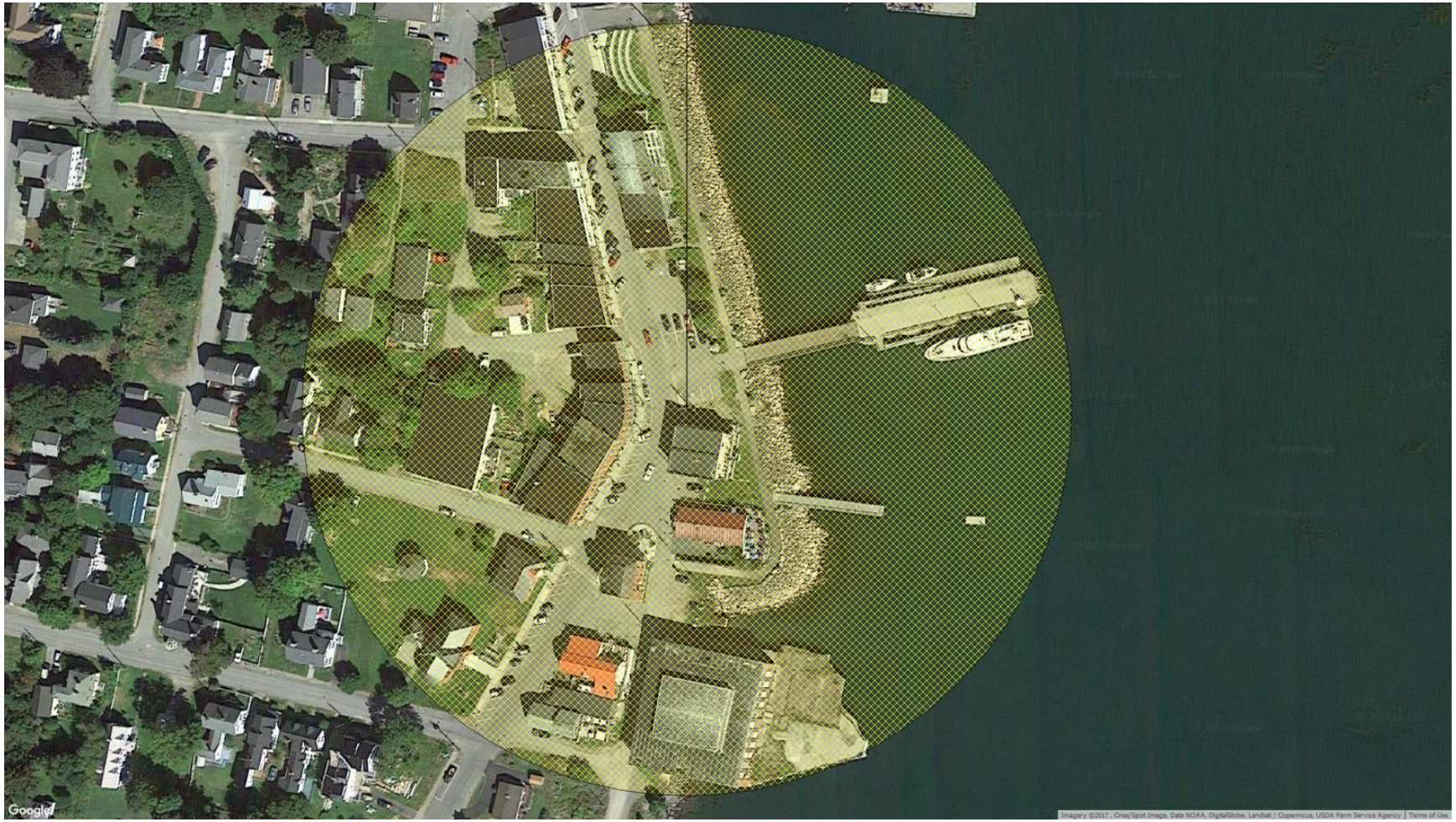
The location pictured below, next to "The Commons", would make the best location to mount such a hotspot as it is centrally located in the area outlined above as well as already offering a high enough location to physically mount the hardware and having readily available power.

The estimated cost to install a hotspot in the above location would be:

Installation - $3000.00
Annual Maintenance (after the first year) - $1000.00

These totals do not include the necessary broadband connection or electrical costs required to allow this hotspot to function.

The following is a map showing the proposed coverage area of the hotspot.



Appendix A-3a

Eastport Fiber Deployment

	Fiber Build	
	Fiber Materials	$261,000.00
	Fiber Installation	$214,000.00
	Regen Cost	$59,000.00
	Total	**$534,000.00**

130	Customer Prem NRC	$260,000.00

Grand Total **$794,000.00**

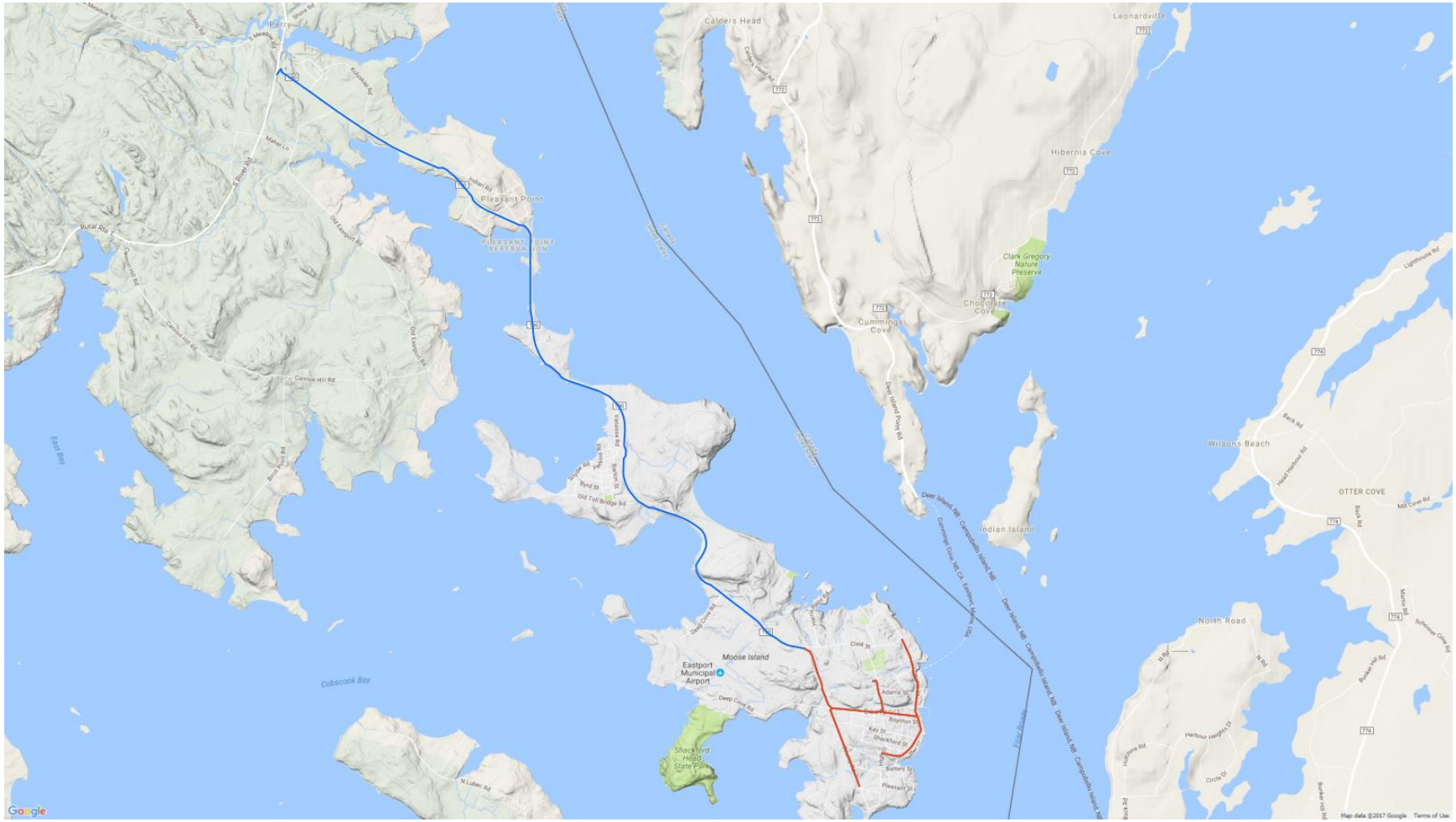
The chart above details the estimated cost of implementing a fiber deployment in the town of Eastport. This approach does not offer a full fiber to the premise (FTTP) plan but targets specific areas, focusing on locations that have a higher concentration of commercial and industrial structures.

This plan uses the 3RB fiber on Route 1 as the starting location and has a trunk fiber run approx. 6 miles down Route 190 through the Pleasant Point Indian Reservation and terminating at the intersection of Clark St and the County Rd. From this location, premise serving fiber would be run along the following streets:

- County Rd
- Washington St
- Water St
- South St

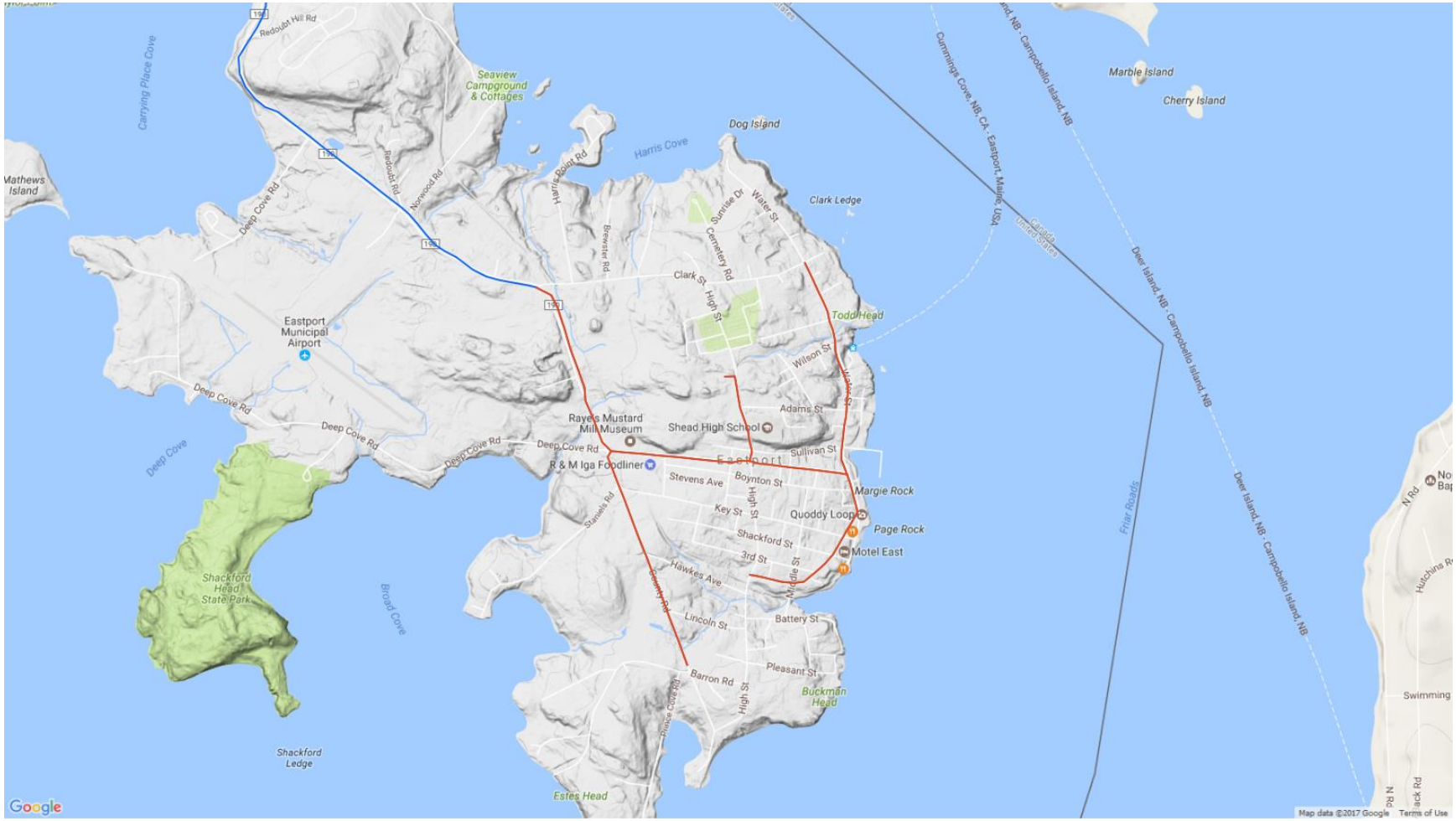
It is estimated that this fiber buildout would pass approx. 30 businesses and up to 100 residential homes.

Fiber Deployment Map – Overview



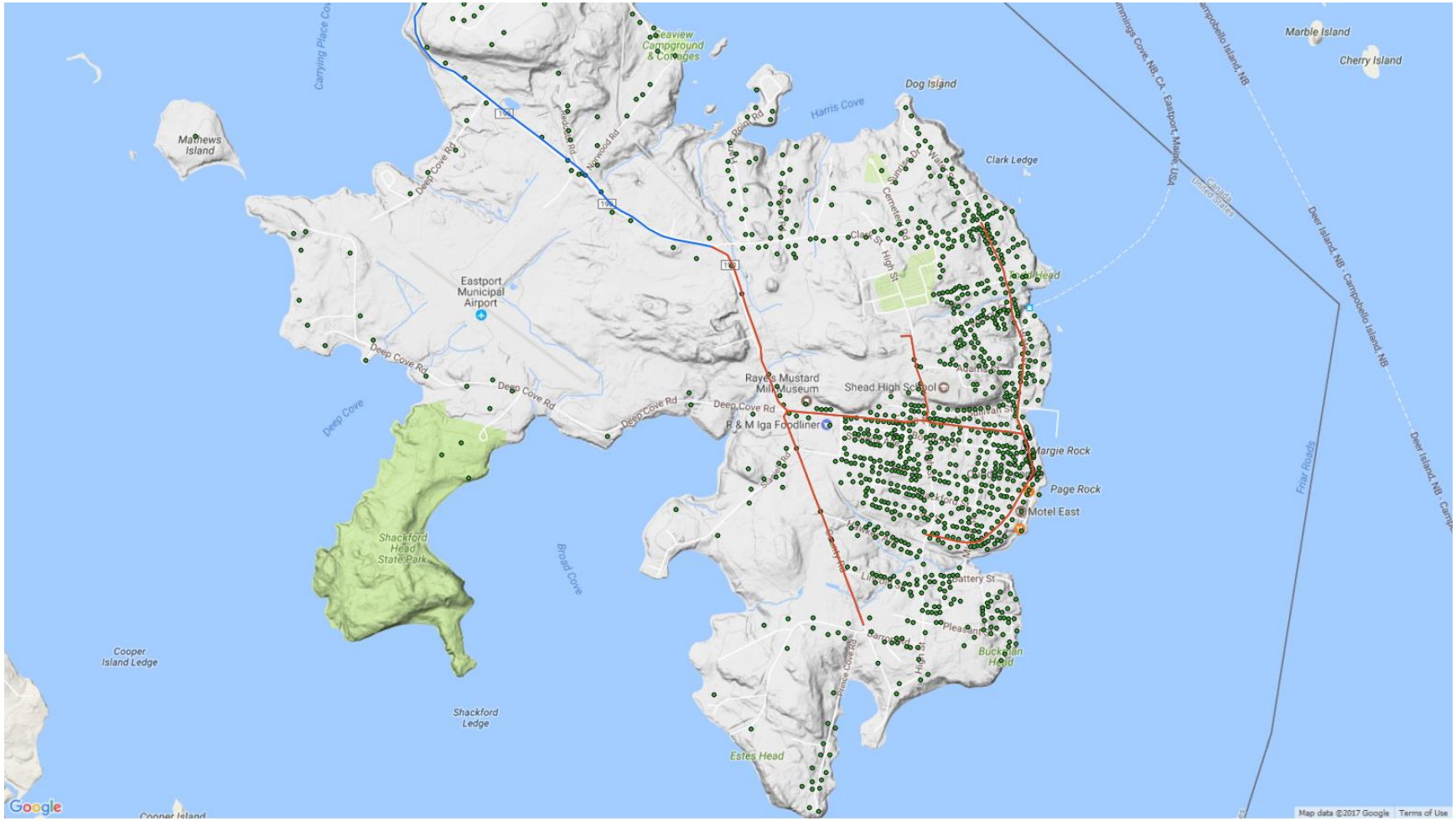
The above map shows the trunk fiber in blue and the premise fiber in red.

Fiber Deployment Map – Downtown



A closer view of the streets served in the downtown

Fiber Deploment Map – Address Locations



A map of the Downtown Fiber Deployment with 911 address locations overlayed and depicted as green dots.

Appendix A-3b

Eastport - Downtown Waterfront Fiber Build

The following information will elaborate on a partial fiber build in the downtown waterfront area of Eastport. This proposal will provide high capacity broadband service to the majority of the businesses in Eastport, which reside along the waterfront as shown in the maps on the following pages.

The following cost sheet shows the estimated costs to install a fiber optic line along Water St. with the premise cost broken out to show the difference in cost between the buildout and premise installations.

	Fiber Build	
	Backhaul Equipment	$5,000.00
	Fiber Materials	$20,000.00
	Fiber Installation	$15,000.00
	Regen Cost	$34,000.00
	Total	**$74,000.00**

30	Premise Install NRC	$60,000.00

	Grand Total	**$134,000.00**

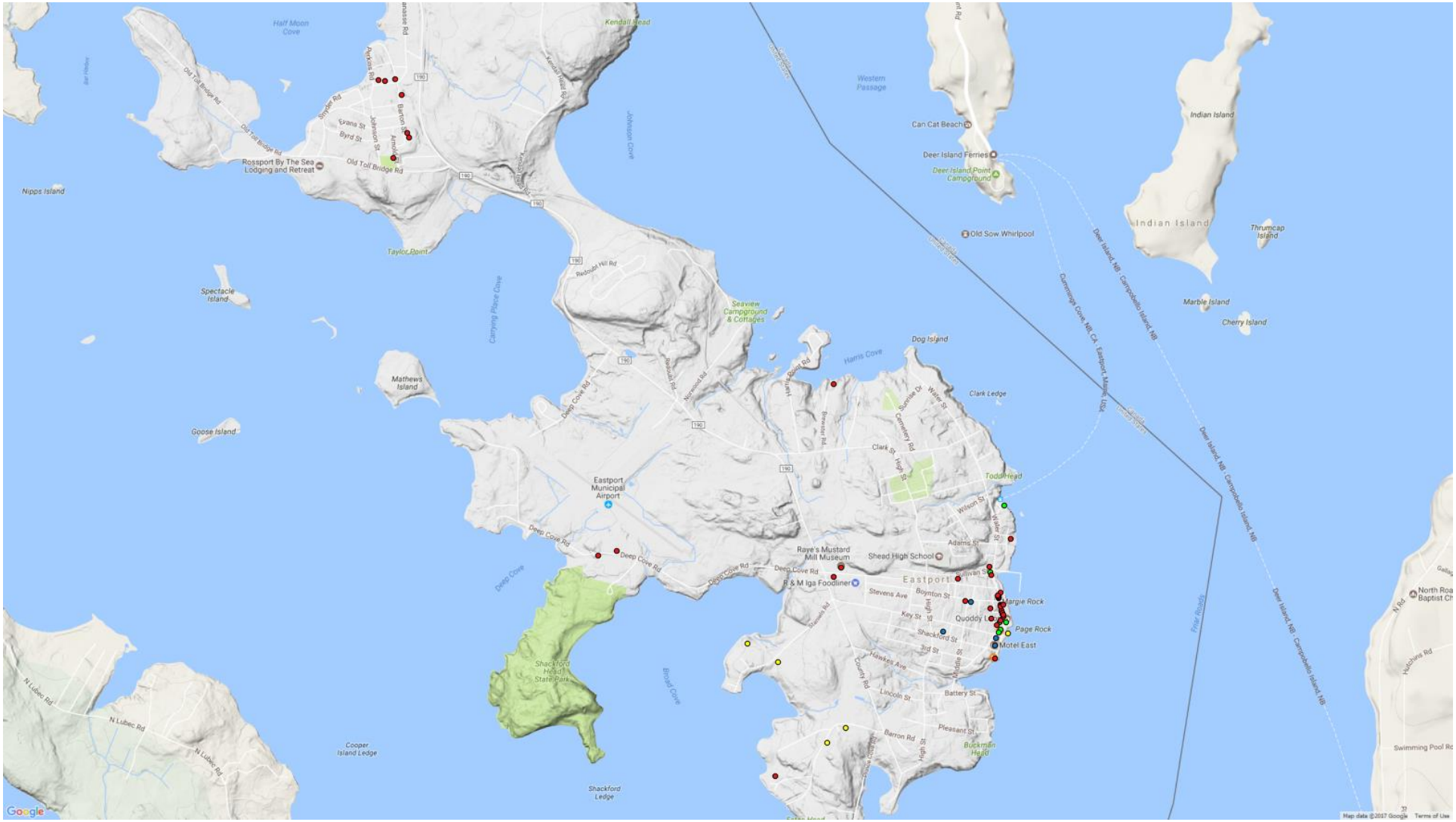
The following two maps show some basic demographic information based on data obtained from the NG 911 database. From this information, we're able to extract specific types of businesses in the area and plot them onto a map. The legend below each map provides a key identifying each business type by a colored dot.

The estimated figures provided here, only represent the initial non-recurring costs to get this project off the ground and does not reflect and of the recurring charges that could be incurred. The following are some of the recurring charges that could be expected in normal operations of this network.

- Bandwidth (ranging from $2000 to $5000 a month)
- Electrical service at one or more locations
- Rental space for the fiber head end equipment
- Line maintenance & repair
- Utility pole leasing

These costs are not inclusive and there may be additional costs incurred after the fact. Typically, these costs would be taken on by a service provider, which would offset them from monthly revenue from the businesses. Alternatively the Town could take on these costs by managing the network themselves.

Business Locations



Red Dot	Commercial Location
Yellow Dot	Industrial Location
Green Dot	Restaurant Location
Blue Dot	Lodging Accommodation

Downtown Waterfront Fiber

Red Dot	Commercial Location
Yellow Dot	Industrial Location
Green Dot	Restaurant Location
Blue Dot	Lodging Accommodation

Appendix A-4

Eastport Wireless Deployment

The following wireless deployment uses four locations across the Town of Eastport to provide a near ubiquitous coverage to the town. The maps that will follow in the subsequent pages will show potential service coverage from each of these towers, which will provide an idea of the extent of coverage that can be expected from hardware placed at a height of approx. 100 ft.

The following chart provides an estimated cost to construct towers and install the hardware necessary to create this network.

	Wireless Build			
	Backhaul Radios (Licensed)	2	$20,000.00	$60,000.00
	Fiber Backhaul Equipment	2	$10,000.00	$20,000.00
	Radio & Bridge Installation	4	$5,000.00	$15,000.00
	Radio & Bridging Hardware	4	$35,500.00	$142,000.00
	Engineering Analysis	4	$6,000.00	$24,000.00
	100' Tower	2	$150,000.00	$300,000.00
	Total			**$561,000.00**

130	Customer Prem NRC	$104,000.00
	Grand Total	**$665,000.00**

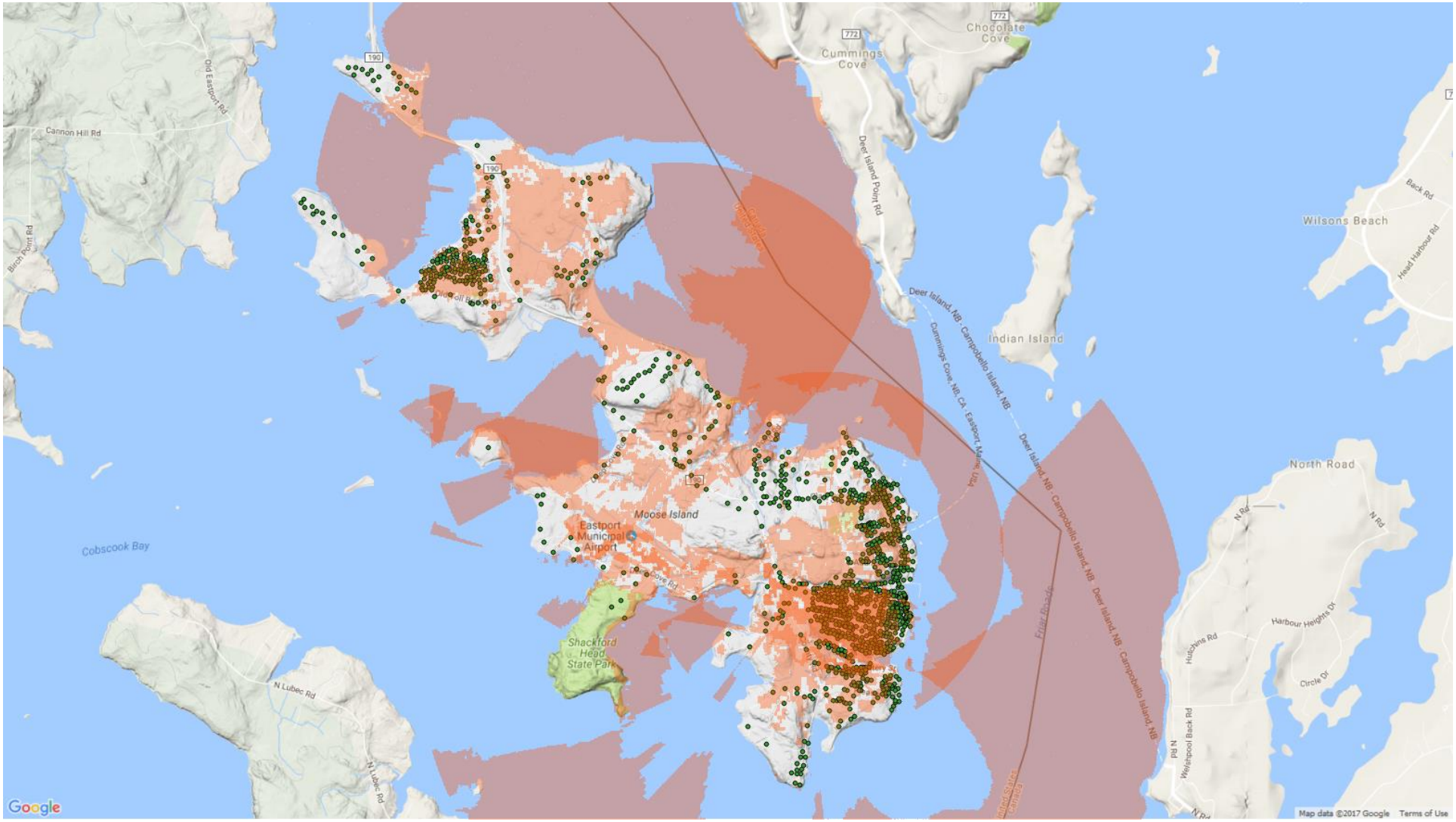
Two of the sites listed below, towers #1 and #2 respectively, have been designed to use existing structures as mounting locations. This is reflected in the chart above by only showing a cost to construct two towers. If for some reason these locations are unavailable for mounting purposes the tower construction cost should be increased accordingly.

The following lists the nearest street applicable for each tower location.

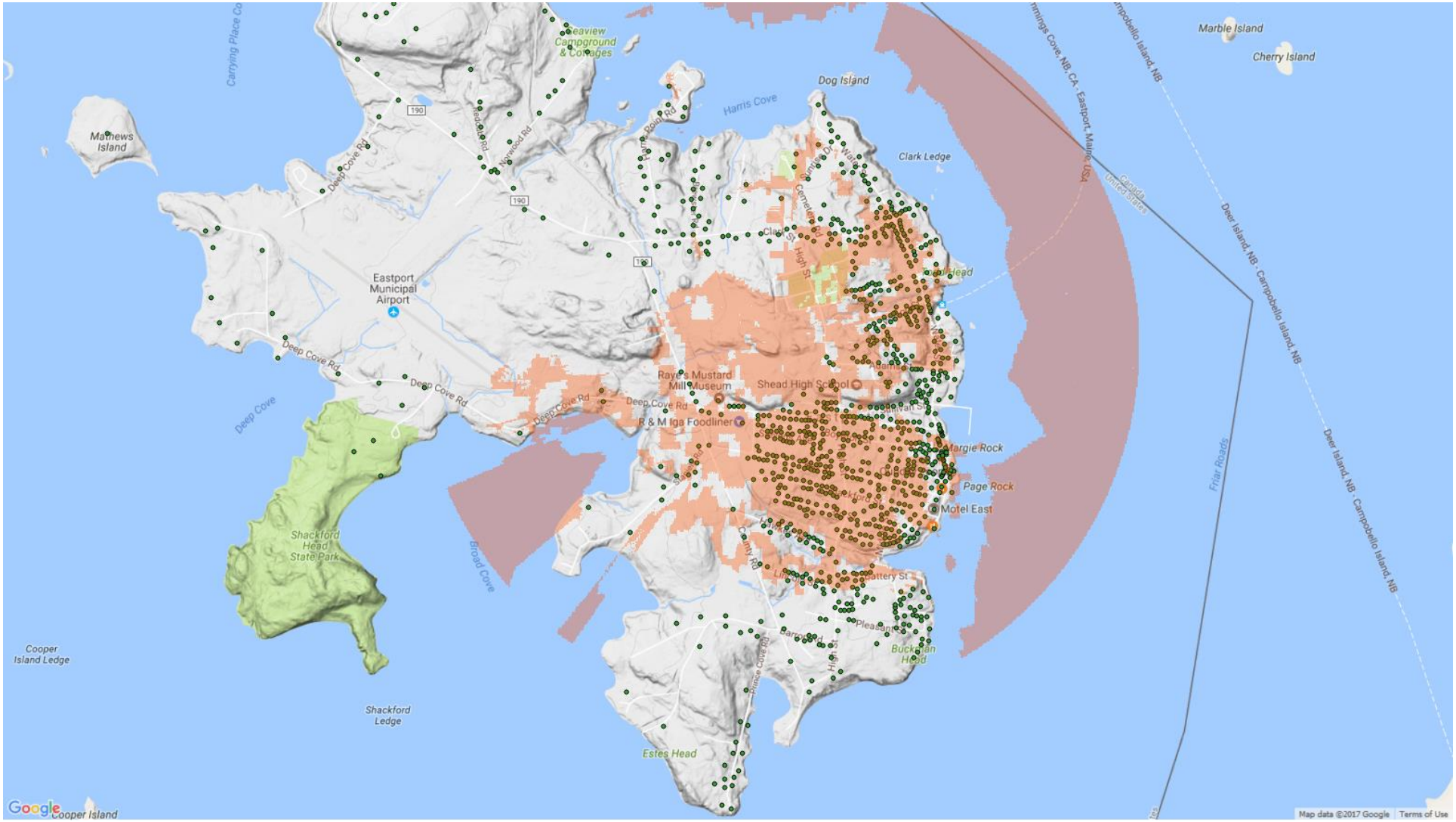
Tower Site #1 – High St.
Tower Site #2 – County Rd.
Tower Site #3 – Redoubt Rd.
Tower Site #4 – Kendall Head Rd.

The following coverage maps were generated using a midline frequency, which would provide the best balance between foliage penetration and bandwidth delivering capability.

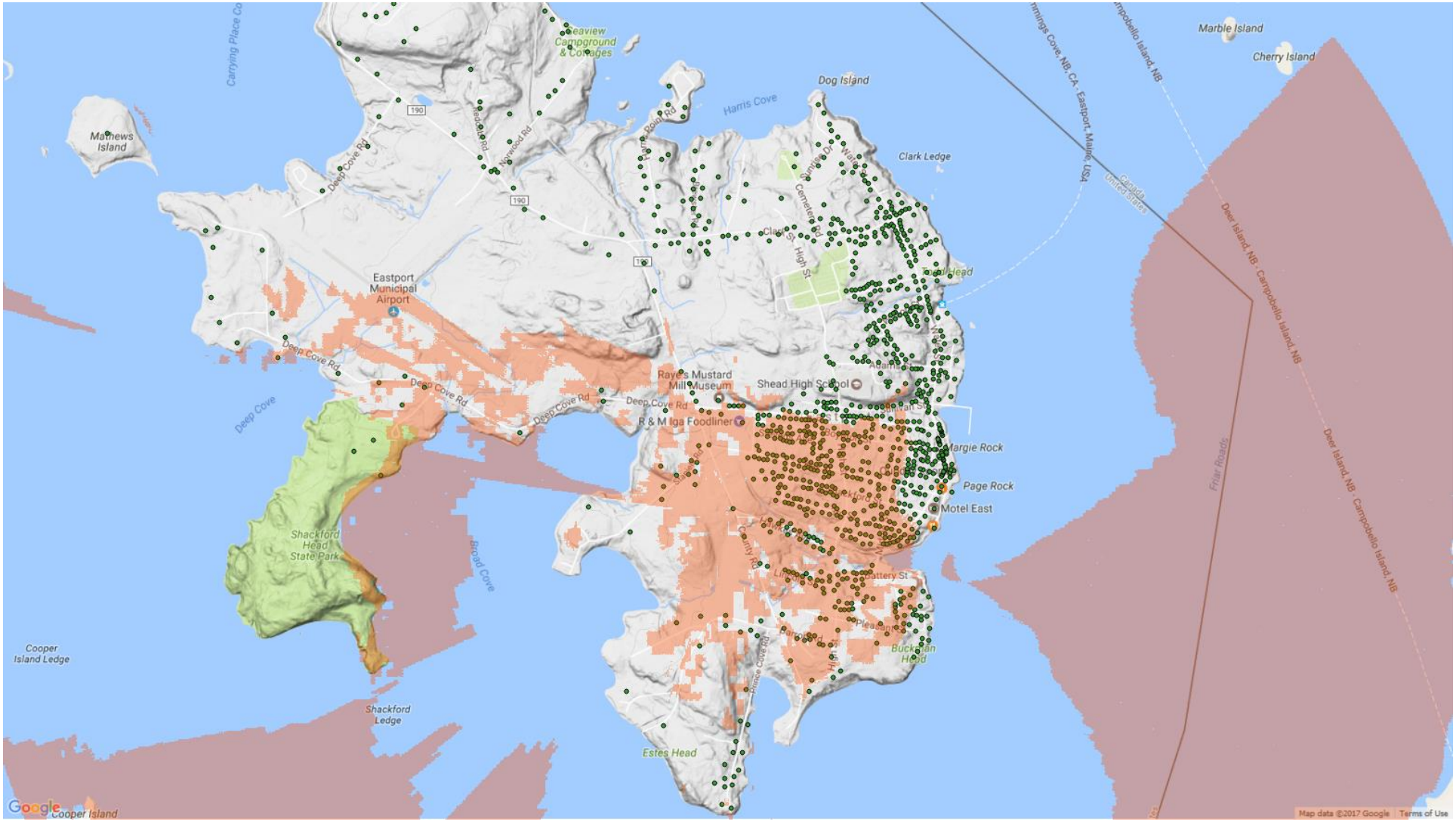
Wireless Combined Coverage - Overview



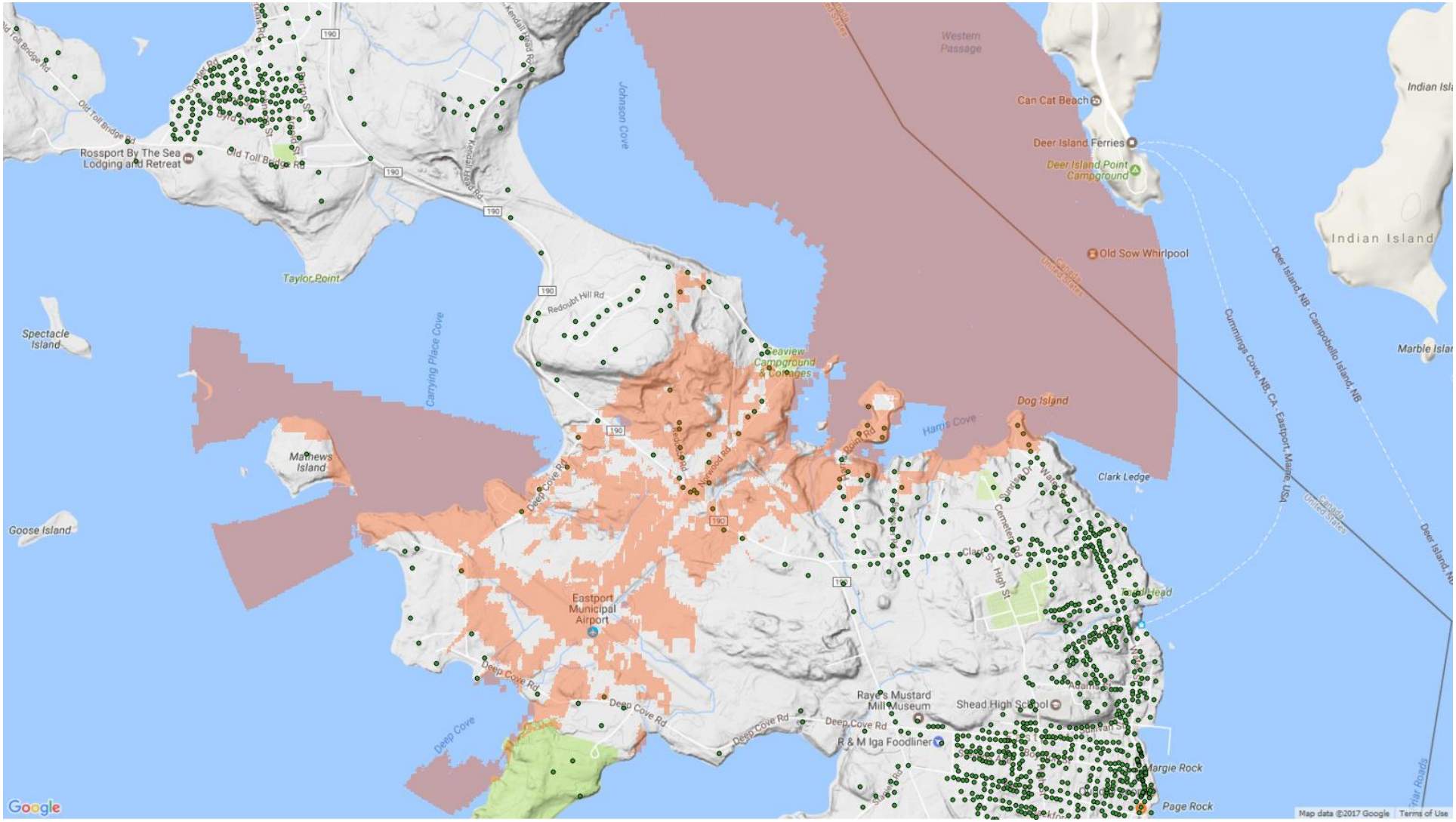
Tower Site #1


Marble Island
Cherry Island
Dog Island
Harris Cove
Clark Ledge
Mathews Island
Eastport Municipal Airport
Deep Cove Rd
Deep Cove
Shackford Head State Park
Broad Cove
Cooper Island Ledge
Shackford Ledge
Estes Head
Rayes Mustard Mill Museum
Shead High School
R & M Iga Foodliner
Margie Rock
Page Rock
Motel East
Buckman Head
Friar Roads
Deer Island, NB - Campobello Island, NB
Cooper Island
Google
Map data ©2017 Google
Terms of Use

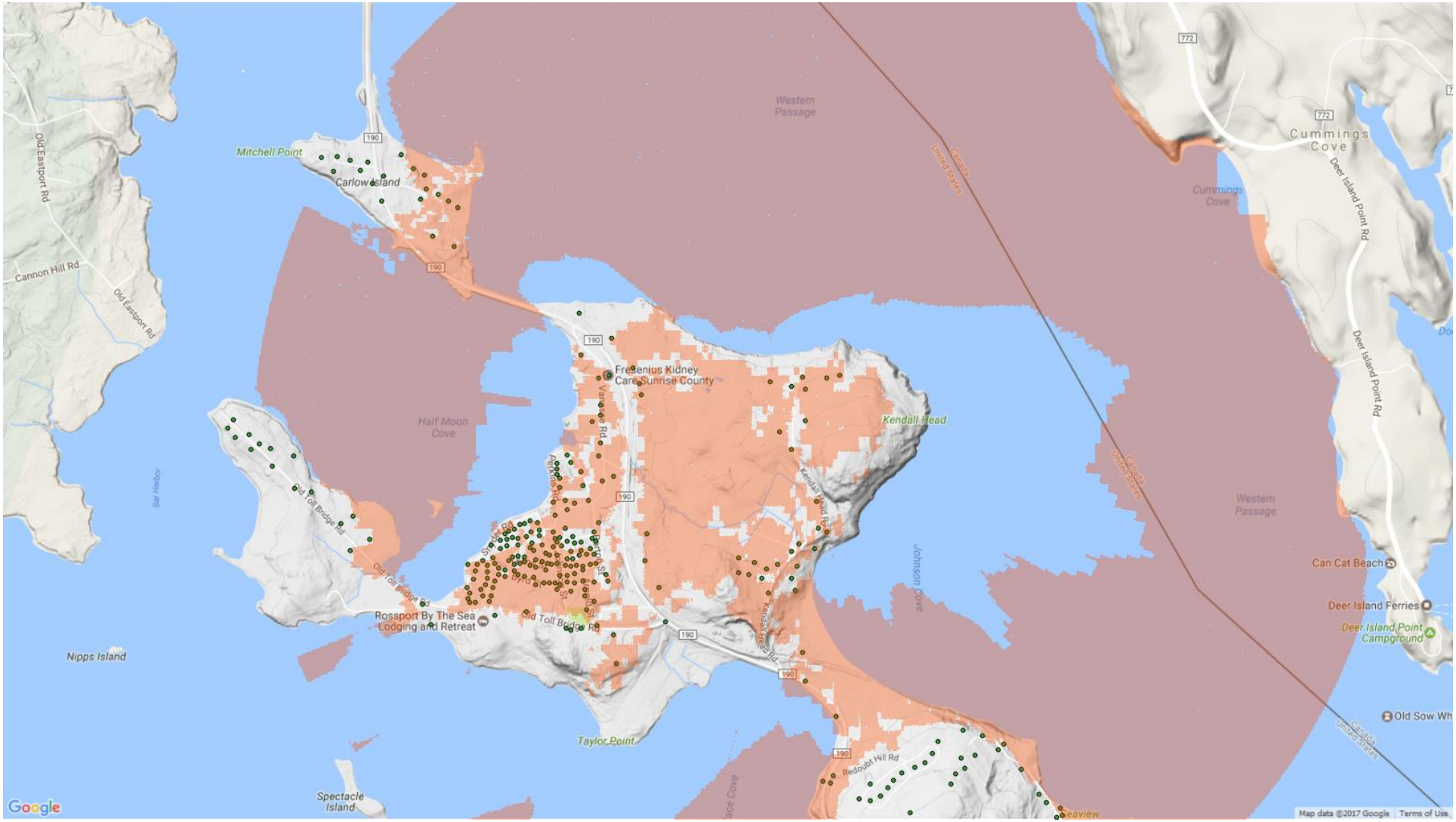
Tower Site #2


Marble Island
Cherry Island
Dog Island
Harris Cove
Clark Ledge
Mathews Island
Eastport Municipal Airport
Deep Cove Rd
Deep Cove
Rayes Mustard Mill Museum
Shead High School
R & M Iga Foodliner
Margie Rock
Page Rock
Motel East
Shackford Head State Park
Broad Cove
Cooper Island Ledge
Shackford Ledge
Estes Head
Buckman Head
Deer Island,NB - Campobello Island,NB
Friar Roads
Google
Map data ©2017 Google
Terms of Use

Tower Site #3


Western Passage
Johnson Cove
Can Cat Beach
Deer Island Ferries
Deer Island Point Campground
Indian Island
Old Sow Whirlpool
Deer Island,NB - Campobello Island,NB
Cummings Cove,NB,CA - Eastport,Maine,USA
Marble Island
Rossport By The Sea Lodging and Retreat
Old Toll Bridge Rd
Taylor Point
Redoubt Hill Rd
Spectacle Island
Carrying Place Cove
Seaview Campground & Cottages
Dog Island
Harris Cove
Mathews Island
Deep Cove Rd
Point Rd
Clark Ledge
Goose Island
Eastport Municipal Airport
High St
Rayes Mustard Mill Museum
Shead High School
R & M Iga Foodliner
Deep Cove
Margie Rock
Page Rock
Google
Map data ©2017 Google
Terms of Use

Tower Site #4


Western Passage
Mitchell Point
Carlow Island
Old Eastport Rd
Cannon Hill Rd
Freesenius Kidney Care Sunrise County
Half Moon Cove
Kendall Head
Cummings Cove
Deer Island Point Rd
Can Cat Beach
Deer Island Ferries
Deer Island Point Campground
Rossport By The Sea Lodging and Retreat
Old Toll Bridge Rd
Nipps Island
Taylor Point
Redoubt Hill Rd
Spectacle Island
Johnson Cove
Bar Harbor
Google
Map data ©2017 Google
Terms of Use

Appendix B

Grant Funding Resources- State Resources

The ConnectME Authority offers 2 types of grants- Infrastructure and Community Broadband Planning Grants. For the purposes of this report, the planning grant is not a consideration. We would recommend looking toward an Infrastructure grant, details can be found here: http://maine.gov/connectme/grants/

Axiom has extensive knowledge of these grants and have received many of these grants totaling over $1M.

- Grant proposals must meet the state standard of 10/10Mbps
- Grant limits are suggested, but typically $100,000, which must be matched 1 to 1 with a combination of cash and in-kind services
- Area targeted must be unserved or severely underserved (Service that is less than 1.5Mbps download

Typically grant is open for applications in the March- April timeframe, but is not clear this year when grants may be available.

The Maine Community Foundation has regional grants that can support initiatives up to $10,000 a year found here: http://www.mainecf.org/GrantsNonprofits/AvailableGrantsDeadlines/CommunityBuildingGrantProgram.aspx

- Grants available up to $10,000
- Local decision makers by county
- Various criteria that needs review
- Deadline February 15th of each new year

Northern Boarder Regional Commission Grants located here: http://www.nbrc.gov/
The Commission excepts grant applications from across the northern border regions of Maine, New Hampshire, Vermont and New York.

- Requires at least a 1 to 1 cash match
- Must be tied to quantifiable job creation
- Very competitive

Contact: Andrea Smith at (207) 624-9813 or andrea.smith@maine.gov for information on deadlines and program parameters.

Grant Funding Resources- Federal

U.S. Department of Commerce- Economic Development Administration (EDA) provides funding for economic development projects across the state of Maine. Maine projects are reviewed and administered by EDA's local representative, Alan Brigham at (215) 316-2965 or abrigham@eda.gov. Programs and eligibility can be found at www.eda.gov

- Various funding programs
- Guidelines encourage regions to incorporate BB investments in their regional strategies (CEDS)
- Funding requires match

U.S. Department of Commerce- Broadband USA is helping communities nationwide ensure they have the broadband infrastructure, digitally literate workforce and engaged citizens to thrive in the Digital Economy. Details can be found here: https://www2.ntia.doc.gov/

- Provides direct (one-to-one) assistance to communities
- Resource rich website- no direct grants
- Building a self-assessment tool for communities

U.S Department of Agriculture- Rural Development has a number of grant programs worth investigating. Local office in Bangor, contact Tommy Higgins, Acting State Director, (207) 990-9160. More information on programs in Maine can be found here: www.rd.usda/me

- Rural Broadband Access Loans and Loan Guarantees Program
  - 2017 Program has not been announced
- Several other competitive grant programs to explore eligibility and criteria

U.S. Department of Treasury- New Markets Tax Credits (NMTC) has recently clarified the eligibility of broadband infrastructure and related activities are eligible for NMTC provided they meet certain criteria located here:
https://www.cdfifund.gov/Documents/2015%20NMTC%20Application%20QA%20FINAL.pdf

- Axiom is exploring the potential of NMTC funding
- Eligible census tracks are being reviewed
- It's unclear without investigation if the City of Eastport or parts of the City of Eastport may be eligible

Broadband Opportunity Council Funding Report- U.S. Dept. of Commerce and USDA released a report in January 2017 listing all federal broadband funding resources - See Addendum 3

Addendum C-1
Digital Inclusion Report

Addendum C-2
Budget

Attachment C-1
City of Eastport
Digital Inclusion Report

This part of our report describes our work to better understand the needs of your community and includes an overview of our business surveys, the business interviews, an analysis of the community surveys, a catalog of available pubic access computers, and recommendations and pricing for a Digital Inclusion program. At Axiom, we believe that a strong Digital Inclusion program is an investment in community members and enhances a larger community connectivity effort such as what is being contemplated in the City of Eastport.

Benefits include:

- **Higher Take-rates**, as people understand the value of an internet connection to their lives, they are more likely to take service
- **Reduces barriers** to adoption and helps community members access learning tools for increased on-line presence
- People with service are more likely to **upgrade service,** again increasing the viability of a project being successful
- **Helps businesses understand how to leverage on-line tools and cloud services** to add value and productivity to their business
- Helps individual community members **access life enhancing content, including e commerce, telemedicine services and educational opportunities**
- **Bridges the Digital Divide**, helping teach disadvantaged members of the community to participate in what is increasingly an on-line world.

By removing barriers and exposing people and businesses to educational opportunities that improves their understanding of on-line benefits Axiom believes we can change the economic status of a region

Surveys, Interviews and Meeting Results

Axiom interviewed businesses, community and municipal leaders, as well as residents to discuss Computer Skills/Digital Literacy Training and workforce development skills training.

Business

For the business community, an online survey was distributed, followed by interviews. The City of Eastport identified key businesses to target during this process. In addition to the survey being available to the general public, Axiom contacted 18 businesses via email or phone calls, the Chamber of Commerce sent out the business survey link, and it was posted on the City's website. A total of 26 businesses responded to the survey and/or interviews. (See Addendum 2 – Eastport Business & Workforce Needs Survey Results)

Business Survey Results:

- 69% of businesses state that broadband is extremely important for their business
- 52% of businesses state that they could work and sell more efficiently online
- 39% of businesses are sole entrepreneurs, 30% have 5 employees or less
- 72% of businesses have a website
- 52% of businesses do not use a domain email address
- 73% of businesses do not use VoIP (Voice over Internet Protocol) telephone service
- 8% of businesses use the internet for online sales
- 12% of businesses use the internet for social media
- **50% of businesses state that internet speeds have not kept up with business needs over the past few years**
- 46% of businesses state improved broadband will be important to their business in the next 1-2 years
- 60% of businesses do not offer telecommuting
- 28.5% of businesses that do offer telecommuting report that employees struggle with it
- 60% of businesses see a need for computer skills training

Residential

As with Business, Community & Municipal leaders, the residential community was invited to participate in a Community Broadband Survey by the City of Eastport Broadband Team. It was the goal of the survey for residents to become engaged in providing better broadband to Eastport. A total of 17 residents completed the survey. (See Addendum 1-Eastport Community Internet Survey Results)

Community Survey results:

- 94% of homes have internet
- 47% of homes use the internet for home and business
- 81% of homes state they are not happy with their current internet service
- 17% state that they would pay more for faster speeds; 11.7% for better reliability and 70.5% are not interested in paying more for internet service
- 50% state that they would like internet television; 50% for VoIP, 25% for home security and 25% for home automation
- 85% state they are frustrated with their internet connection
- 47% state they have children or adults that use the internet for homework – 62.5% are children and 37.5% are adults
- 41% think more people would live in Eastport if there was better internet
- 50% think that visitors would stay longer if there was a good internet connection
- 47% think a business center in Eastport that would make sense

What is Digital Inclusion?

Digital inclusion is a national priority in the United States, and increasingly a priority in Maine. High-speed Internet access is widely recognized as a necessity for full participation in today's society. Employers, educators, businesses, healthcare providers, and civic institutions expect people to have access to computers and broadband connectivity. However, accessible, reliable, and affordable broadband service continues to be out of reach for millions of Americans, many of whom live in low-income households. This gap in adoption of high-speed Internet and the lack of skills needed to use broadband-enabled tools in meaningful ways continue to be significant problems that policymakers, researchers, and practitioners need to focus on in the United States and in Maine.

The Digital Inclusion Program for the City of Eastport includes 4 components:

1. Affordable Internet – Cost continues to be a major barrier to broadband adoption. The City of Eastport should consider addressing "ability to pay". The following providers have been contacted regarding low-cost broadband availability:

- **FairPoint Communications:**
  - Eligible low-income FairPoint residential customers can quality for a discount on qualified internet service at their primary residence under the Lifeline Program. The discount consists of federal monthly support of $9.25.
  - Eligible FairPoint residential customers residing on tribal lands may qualify for an additional federal discount of up to $25 per month and installation assistance.
  - Further information, including applications forms, can be found at: www.fairpoint.com/home/residential/phone/lifeline.html
- **Charter Communications (formerly Time Warner Cable):**
  - Charter offers "Spectrum Internet Access", which is a low-cost broadband offering. www.SpectrumInternetAssist.com
  - Plan includes:
    - $14.99 for 30/4 Mbps with no data caps
    - Internet Modem Included
    - No Contracts Required
    - Add in-home WiFi for $5.00 more per month
    - Customers must not have been a Charter Communications subscriber within 60 days of signing up for Spectrum Internet Assist.
  - Eligibility requires participation in one of the following:
    - National School Lunch Program (NSLP); free or reduced cost lunch
    - Community Eligibility Provision (CEP) of NSLP
    - Supplemental Security Income (SSI) (>age 65 only)
    - Residents may visit Charter Communication's website or call 844-525-1574 to determine eligibility

- **City of Eastport Technology Fund**: A fund ~could~ be established to offer a discount to low-income families to address broadband adoption and take-rate
    - The City of Eastport Broadband Committee may opt to explore the feasibility of establishing a fund

2. Affordable Equipment Assessment – Low-cost or free computers are often just as important as having access to low-cost or free Internet options, particularly for people in low-income communities.

- **PC's for Maine** www.pcsformaine.org offers refurbished, older computers that are donated by businesses in Maine and are available to low-income families.

- **PC's for Maine** will consider installing a kiosk at a local business to sell low-cost computers locally. Axiom would be happy to work with a local business and facilitate a conversation with PC's for Maine, should the City of Eastport decide to move forward.

- **Lending Library of Devices**, laptops, desktops, iPads, etc., could be established for residents to borrow on an "as-needed" basis. The devices might be donated or the City of Eastport could seek grant funds to purchase equipment. The Peavey Memorial Library might be considered as the lending institution.

3.Digital Literacy Training* – Computer Skills Training /Digital Literacy Training plays a critical role in technology and workforce development training. Currently, the AOS 77 School District does not offer digital literacy classes for its residents or businesses. The Axiom Education & Training Center, through periodic grant funding, has offered digital literacy classes since 2013 to the residents of Eastport; 215 residents have participated in a variety of computer skills classes.

- **The Island Institute** has offered to provide 2 free Digital Literacy classes to businesses located in Eastport. There is a short survey on the City of Eastport website that will help determine what classes will be offered in Spring 2017. The survey can be accessed at: www.surveymonkey.com/r/eastportislandinstitute and on the City's website located at www.eastport-me.gov/Public_Documents/index

    - **Class choices include:**
        - QuickBooks: Set Up and Customize (3 hours)
        - QuickBooks: Sales, Transactions & Payables (3 hours)
        - QuickBooks: Advanced Transactions, Payroll & Utilities (3 hours)
        - QuickBooks: Closing Your Books (3 hours)
        - Facebook for Business: Set Up and Use (3 hours)
        - Facebook for Business: Marketing and Analytics (2 or 3 hours)
        - Social Media for Business: Explore Twitter & LinkedIn (2 or 3 hours)
        - Social Media for Business: Manage Your Accounts with Hootsuite (2 hours)
        - LinkedIn for Business: Set Up and Use (2 hours)
        - Online Marketing Directories: Explore Yelp & TripAdvisor (2 hours)
        - WordPress for Business: Create Your Website (3 hours)
        - WordPress for Business: Marketing & Mobile Applications (2 or 3 hours)

- **Maine Dept. of Labor's CareerCenter**, www.mainecareercenter.gov/locations/machias.html, www.mainecareercenter.gov/locations/calais.html, two offices in Washington County are located at 53 Prescott Drive, Machias and One College Drive, Calais. CareerCenter is working in collaboration with the Axiom Education & Training Center, and is committed to assist with workforce development skills efforts.

- **Axiom Education & Training Center** offers Digital Literacy classes for residents and businesses. We recommend offering the residents of Eastport digital literacy courses over a 6 to 12-month period of time, one class per week, ensuring that the program has predictability over some period of time for full residential and business participation.

In rural communities, time, distance, travel is a barrier to educational attainment; holding classes that are in accessible locations that are familiar and not intimidating will increase participation and are geographically spread out throughout the designated service ensure strong, widespread participation and good, measurable impacts.

Recommended Class Locations:

- Peavey Memorial Library
- Eastport Port Authority
- Shead High School
- Business Locations

Recommended Classes include:

- Introduction to Computer
- Windows 7, 8, 10
- Internet Safety
- Microsoft Word
- Microsoft Excel
- Microsoft Outlook
- Microsoft Publisher
- Microsoft PowerPoint
- QuickBooks
- PhotoShop
- Social Media including FaceBook for Business & Individuals, Twitter, etc.
- WordPress
- Video Streaming
- iPad
- Gmail
- Google Docs, etc.

*Digital Literacy Training program pricing included in Attachment C-2.

Axiom will work with the City of Eastport to pursue funding for digital literacy classes for residents and businesses.

4. Public Computer Access – Increasing Public Access Computing allows residents to access technology in places in which they feel comfortable and supported is essential. If a business or resident cannot afford equipment or an Internet subscription, and if broadband is not available at their location, Public Computer Access is essential.

- **Peavey Memorial Library** has 2 computers available for public use. Wireless internet is also available for residents and businesses with their own equipment to use during library hours.

- **Community HotSpots** are open access networks that allow citizens in a downtown or other public spaces access to the Internet. This is a simple, straightforward way to help the City get more connected. It is an affordable, convenient way to help visitors and residents easy, seamless connectivity.

  In additional to the Peavey Memorial Library, WiFi is available at a variety of locations including: Wadsworth & Sons Hardware, Liberty Café & Bar, WaCo Diner, Dastardly Dick's Coffee Shop, Moose Island Bakery, The Eastport Chowder House, Motel East, as well as several other business entities. A Community HotSpot for the downtown is recommended for the City of Eastport.

Appendix C-2

City of Eastport
Digital Literacy Pricing

Budget

Teacher or Tutor (Fringe & Salary)	$20,000
Travel	$ 2,000
Survey Monkey (Annual Fee)	$ 204
Supplies	$ 1,000
Academic Services Group (curriculum)	$ 796
Administration	$ 6,000
Total Budget	**$30,000**

- Budget based on 1-year program, 1 class per week
- Budget based on 10 students per class