**PUB “Minutes”**

**06 December 2019**

Location: Blue Hill Public Library

Attendees: Butler Smythe, Jim Fisher, Phil Glaser, Scott Miller, Royce Hardin, Doug Cowan(online), Charlie Hopkins (online), Hannah Barrows (online), Christopher Mitchell (presenter), Doug Fishbine (presenter), Others unknown…

We did NOT identify a date and location for the next meeting and would like to get inputs on the following for the **Next Meeting**:

1. Should our next meeting be in January or February?
2. Can we move the regular meeting to something other than the first Friday of each month – which conflicts with the Blue Hill Peninsula Chamber’s standard First Friday conversation event?
   1. 2nd Friday, another time, other? Need Inputs… (over the winter with some out of town a later time might be helpful).
   2. Would like to get inputs on what works and can also try to accommodate a call-in for those not in the area (like Charlie at least).

**Agenda**

**Neo-Partners Meeting (Area Broadband Study)**

This meeting’s primary focus was to present the results of the Neo-Partners effort -paid for through a Maine Community Foundation Grant to Deer Isle. The scope of the study included the Peninsula Utility for Broadband area, including Castine and Isle au Haut. Of note, the presentation is being slightly modified and should be updated when you get this to reflect the title “Peninsula Broadband.“

To get access to the presentation/study files and links please use the following LINK and access code.

LINK: <http://expressoptimizer.net/projects/Blue%20Hill/index.php>

CODE: Blue Hill Access

1. There will be many questions I’m sure and some can be answered by those in attendance but for the specific presentation and questions on the data provided we decided at the meeting that we’d provide consolidated questions through Jim Fisher – not individually. There may be more than one series of email questions with responses.
   1. Responses will be provided to our Google Drive as well as through email to the PUB group.
   2. Once you have digested what has been provided (and while doing that), make note of your questions. Some may be answered as you read… When you do have a list and are ready to send… send them to Jim Fisher (WORD or another DOC type file is preferred). Short and concise is best.
   3. Jim will consolidate and send to the presenters…

1. The following is not intended to be a complete list of what might be important points to the presentation but worthy of consideration in regard to questions – especially if you did not participate in the presentation. They are not in any specific order. If you are unsure of a “term” and can’t find online, please ask me, though I’ll try to present it sufficiently up front. I’ve tried not to repeat what is already in the presentation - except to amplify something specifically related to a question area.
   1. Each town area differs in some way from another (Blue Hill and Isle au Haut, Brooksville and Castine, etc.) but a collective effort to address Broadband is less expensive overall than having individual towns operate independently for the same result. This analysis supports the collective approach to cost savings.
      1. Economies of scale are more attractive for partners, can reduce labor costs to have a single build, and political boundaries aren’t the same as infrastructure boundaries. But scale locally may result in difficult political coordination, though a cooperative structure/consumer coop can reduce political infighting.
   2. The data presented can be refined in many ways and may be useful to a vendor that might bid or might be selected as the installer. Something to consider at least. Their pricing and other variables may/will differ but some of the data can be used to validate or provide insight into the needs of the areas studied.
   3. The study takes into account various options which have been identified on a number scale with “5” being their identified initial optimum. The scale goes from ALL Wireless (i.e. WIFI) to ALL Fiber.
      1. The blended option is a near term solution. The basis is for a Phased Construction with all Fiber the final solution.
      2. Cost, funding availability and profitability are the initial considerations to the blended option. Available resources to an area could change that assessment.
   4. Access to the main Fiber Line (Backhaul) is identified but not necessarily important at this point. CCI runs fiber throughout the peninsula (Premium Choice used it for fiber on Newbury Neck, US Cellular uses it for their cell transmitters) and it goes to all the schools and Libraries…. Where it is identified on the may is not necessarily accurate.
      1. 3 Ring Binder DARK FIBER (Unlit fiber) and those that are lit (used) are as close as Bucksport and Ellsworth! Owning the fiber to the origination point removes that annual cost paid to someone like CCI.
   5. Colored map areas may depict various things (see key on the map). You may see or know of houses, businesses, etc. that are in Wireless areas that are close to the road or make sense for Fiber up front. The maps and associated data can be updated to reflect changes.
      1. This will be addressed separately.
   6. “Towers” identified are all needed in the blended solution. Some existing towers may NOT be able to support new transmitters and new towers, and/or different locations may be needed.
      1. New Towers identified (many of the 23 noted) are 80 Foot Phone Pole type towers. If your town has a Tower Ordnance (Blue Hill Has one), they must meet the requirements and gain approval from the town through standard procedures in the Ordnance. Blue Hill Towers above 35 Feet need to be approved.
      2. Towers also do not need antennae with 360 deg coverage. Radio frequency (RF) directional assessments are provided in the data and may be helpful to a vendor.
      3. The number - 23 towers - stays the same even as we add fiber (that serves about 80%) until All have fiber.
      4. Blue Towers are those that exist, and Red Towers are New. Note the comment about existing towers above. Some tower owners may not want to share space either… There may be no formal requirement for them to and that would have to be studied. Their permit to operate wording is key. Some towers may also be “full” and not able to support additional weight, etc.
   7. Costs do not reflect Pole replacement requirements nor Maine requirements from The Public Utilities Commission (PUC) for installation and annual per pole charges.
   8. Costs may be higher (or lower for other things) than some providers may quote, such as cable cost.
   9. Wireless coverage from the Poles is approximately 3 Miles (That’s it!) AND their life expectancy is about 5 years! It is not a long-term solution.
   10. Wireless is impacted by our Pine/Spruce forests, especially vs. height and elevation vs radio frequency (RF) signal drop or blockage. This was not specifically addressed as the maps and GIS data do not show trees, their type nor their heights. A “feet on the ground” requirement for a full and accurate study.
   11. Wireless Capacity (i.e. Speed) vs. Cost & Fiber Capacity (i.e. Speed) vs. Cost were not clear up front and will be one of the questions. This could drive acceptance by users.
   12. Capacity (i.e. Speed) Data used is derived from FCC data which is well known to be inaccurate (i.e. deceptive). Example: An area defined as having Spectrum may have homes with no wired Internet at all (no CCI or Spectrum) as they might be too far from CCI service or too far from Spectrum on a main road. That is the case throughout Blue Hill, Stonington, Deer Isle and Castine.
   13. The Data is not refined enough that it can be used by a Fiber/wireless provider to build to – no wire distances, number and variability of poles (EMERA vs. Private, etc.) and other unique considerations.
   14. Some analyses provided may be confusing and they can be explained as needed in a separate meeting (i.e. if there is an RF Clutter analysis provided). The nuances of the analysis will not be important to the general public or many of the group. It is important to the installer – especially one that is installing RF systems like wireless (i.e. WIFI, Cell Phones, etc.).
   15. If you are not familiar with EXCEL and calculations used in the formula areas (and you feel you need to know them….) they can be addressed. If you download an EXCEL file you can change the data (not sure if the formulas are protected…) but I would not change the formulas…!
   16. Financial analysis assumes an interest rate of 3.5% as I remember… This is a guide and LOWER rates are available “locally.” The Baileyville/Calais effort they funded as “Downeast Broadband” was closer to 2%.
   17. The ability to get Grants varies between entities providing them (FCC vs. USDA as an example). In some cases, having Spectrum in a census block (with limited access) may not matter – for some having all the schools and libraries with Fiber may not matter. The students, etc. (i.e. at home) may still not be connected and that may be the key factor.
   18. Connecting to Isle au Haut was assessed (undersea cable vs. RF Tower) and a Tower was the most economical (est. $60,000 for the study). What was not clear was the Deer Isle Bridge and the cost of that transit (it may be a question still - after reading all of the study).
   19. One comment from Chris is worth adding – not sure if it is in the report… Generally, don’t recommend working with incumbent providers – they can resist change. Do for us that would include folks like Spectrum and CCI, though CCI’s business model could change but have not seen that to be true yet.

There may be other notes to add as well as questions for the providers and that will come at a later date. The next PUB meeting will be a good opportunity – if all have a chance to review the provided information – to discuss the next steps.