

Project Title: Jefferson PUD – Fiber Master Plan

Progress Report: June 30th, 2019

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June Update: Magellan Advisors has been assisting JPUD with its efforts to determine the viability and appropriateness of expanding broadband availability within their service territory. Magellan has worked with JPUD's internal staff to collect valuable information regarding the potential for making broadband available to the general public.

June has seen a lot of work accomplished toward making a recommendation and providing options for the PUD on their options to offer broadband to the region.

Magellan has continued to meet with key external stakeholders including, Mason 3 PUD, Kitsap PUD, Clallam PUD, City of Port Townsend, Chamber of Commerce, NoaNet and a few others. We also sat down with Commissioner Collins for a discussion on his desires for the region's broadband and the potential PUD's role in that vision.

Each one of the external PUD's we visited with uses a different "business" model to offer broadband to their end users. Magellan has more insightful understanding of how broadband is offered in the region as a result of these interviews and discussions that can now be applied to Jefferson PUD and weighed for appropriateness for their specific market. This, combined with Magellan's experience in helping other PUD's, should provide some valuable guidance for JPUD.

It is anticipated that Magellan will have a draft report ready to present to Management/Commissioners by the end of August. This report/draft will incorporate all of the Statement of Work obligations as set forth in the contract, but more importantly, it will have an overall recommendation about how the PUD could provide broadband to the region. Based on feedback from the Commissioners, it has been our experience that an additional two-three weeks of report refinement will be needed after to have an agreed upon Broadband Plan in place with actionable items in place to move forward with.

Prior to the presentation to the interested parties, Magellan will work with select management members in collaborating on possible scenario options, ramifications, risk/rewards and financial considerations prior to the end of August report-out.

Work done to date:

MAPPING:

Magellan continues to build its GIS database with information provided by the client. Over the past month, new data has been received by Magellan including updates on existing fiber routes, planned upgrades and NoaNet routes to the end users. This information will be coupled with GIS-based survey results to understand where service is and is not available, helping to determine where and how the PUD might be able to address any broadband shortages. From these maps, Magellan's team will be able to develop routes and associated costs with building a network over time. These costs then combine with business

and implementation plans and associated financial models to provide direction to the PUD on what options may be available to them.

June Update: With the survey now closed, Magellan is reviewing the results and offering some insight about the state of broadband in the region. In addition, the survey respondents address, and broadband information will be populated in the GIS database allowing Magellan and JPUD to get a visual representation about the status of broadband in the region. This will also allow the team to target and prioritize network builds to specific underserved or strategic areas for broadband service should the PUD decide to offer a service. The survey yielded over 1000 responses. Results and reporting will be available later in July and ultimately made part of the final report.

TELECOM AUDIT:

May Update: *Internal structure to support a Telecom business* – Magellan has been working to address and recommend and appropriate internal business structures that will be capable of supporting a telecom offering from the PUD. This was part of Task 2 as defined by the contract. While Magellan’s team has general recommendations prepared for the PUD, we have not yet made detailed recommendations at this juncture as we do not know the ultimate business recommendation, which will influence the organization’s structure. We are reluctant to spend time (resources) on Task 2 at this point in the project because our detailed recommendations are dependent on determining a business model and preliminary findings may potentially change once we determine a suitable model for the PUD.

June Update. Based on the feedback and understanding of potential deployment solutions that the other local PUD’s are using, Magellan is readying a draft recommendation based in part on the feedback and model options employed by the other local PUD’s. Each of the other PUD’s is different in how they have chosen to deliver broadband that careful analysis will be needed to determine what mix may be most appropriate for JPUD. For instance, Mason 3 offers residential services to selected communities but only after they get a commitment by at least 75% of those residences to purchase service. They end users do not have any upfront costs but are charged a \$25 per month network fee to help offset the last mile costs. All last mile infrastructure costs are provided by the PUD. The Mason 3 model requires a staff of about 10 people. In contrast, Clallam PUD uses a model that provides services only to business and will charge them an Aid-to-Construction fee prior to building to the business facility. Their entire operation is managed by roughly 2 people. Kitsap PUD uses a hybrid approach of offering service to select residential communities, but does require an upfront last mile construction fee, but end users have the option to pay for this fee via a lien on their home and then monthly payments. Kitsap PUD creates Local Utility Districts for each of their communities. They have a staff of roughly 5 people.

Based on these discussions, there are several potential models or hybrids of these that may be appropriate for JPUD. Each model does have differing company structure and management considerations.

STAKEHOLDER ENGAGEMENT:

May Update: *Internal discussions* – Magellan’s team has met with several internal groups from the PUD including staff, CAB, GIS, engineering and two of the three board members. We are working to schedule time with Board Member Ken Collins to exchange thoughts on potential direction the PUD could take in helping with the availability of broadband for the community. This discussion would be best conducted face-to-face; therefore, we are seeking for an agreeable time when Magellan will be onsite. We will suggest some times for this discussion shortly. Magellan would like to engage a few additional stakeholders and is trying to coordinate schedules to do so. We hope to have a majority of these interviews/discussions completed by the end of June. Thus far, stakeholder discussions have provided some insights about the PUD that will be applied to our final recommendations

In May, Magellan met with Kitsap PUD and with the Port of Port Townsend. They both provided their perspectives on broadband for the region and offered suggestions that they recommend JPUD might consider for potential deployment scenarios.

Kitsap PUD. Magellan met in person with a group from Kitsap PUD in their facilities. Represented was engineering, management (GM/CEO) and product/customer engagement. Kitsap PUD is offering a broadband solution to many communities within their service territory. Unlike JPUD, Kitsap PUD is not an electric provider; they only provide water service. They indicated that being an electric provider would have made their decision to “tackle” the lack of broadband an even easier decision for them. The encouraged JPUD to capitalize on their assets to make broadband available. Their GM was not initially a strong supporter of their broadband goals, but over time, as he has seen it implemented, is now a huge champion of the effort and hopes JPUD will also become eventual converts. He believes that without entities like the PUDs, and their ability/position to capitalize on existing assets/structure, broadband may forever be out of reach for many within the community given the business models of the for-profit carriers.

Kitsap PUD uses a Local Utility District (LUD) model when targeting broadband efforts. In essence, groups of homeowners get together (or are targeted) and collectively approach the PUD for broadband. The PUD then does some cost analysis on what it would take to get broadband to these communities, then provides the communities a cost-per-home for broadband. The PUD Board then designates each community an LUD and identifies several financing options for each homeowner. Homeowners contribute to the cost of the last mile infrastructure and can pay for that via a loan from the local credit union, which has the ability to grant these funds based on a lien placed on the property. This lien has a position even ahead of any existing loans, making them safe. The loans can then be paid off over time or with a refinance (which seems to be what most people are opting for), or paid off when the home is sold.

The details of how Kitsap facilitates and promotes (and the effort required) will be part of the options explored for JPUD in this analysis. At this time, Magellan is not making a determination that this is the best model for JPUD, but will certainly use it as a potential model. OPALCO runs a very similar model and is worth consideration for an appropriate fit within JPUD models. More details will be provided in the Report on this potential solution with its pros/cons and risks.

Port of Port Townsend. Magellan also met the with Port. They indicated that traditionally, the Ports (all Ports in Washington) charter to oversee/facilitate/encourage economic development, not just for the Port itself, but for the surrounding communities. They are very anxious to provide any support necessary for the PUD in the development and encouragement of broadband. They see two glaring issues for the region around Economic Development: one is affordable housing, and the other is lack of adequate broadband. As such, they are willing to put their support behind solutions for better broadband access for all in the region. They feel that the JPUD is in a position to influence the availability and affordability of broadband and are encouraged by the efforts being taken.

Magellan is continuing to contact other external stakeholders and are working to get as many finished in June as possible. We hope to meet with Mason 3, the school districts, Clallam PUD, OPALCO, City of Anacortes, Skagit PUD, City of Port Townsend, T-Mobile, Wave, CenturyLink, NoaNet, OlyPen, NOP Data Centers (Leo), and Doug Sheffield from Marrowstone group. Magellan is arranging some of these discussions, while JPUD is facilitating others.

June Update: As noted above, Magellan did meet with Mason 3 PUD, Clallam PUD, NoaNet, City of Port Townsend, Chamber of Commerce and Commissioner Collins. In July, we have Skagit PUD, OPALCO, T-Mobile (again), school districts and a few of the local ISP’s to meet with as well. Scheduling has been taking some time given business schedules for all the parties.

SURVEY:

May Update: The broadband survey has been live since May 1. It has received over 800 online responses and roughly 200 paper surveys for residential respondents and about 35 business responses. As the survey results come in, Magellan's team puts them into a GIS database that maps responses based on their address. This allows us to create a visual representation of where broadband is and is not available, helping to tell the story of broadband in JPUD's service area.

JPUD will continue to promote the survey to create an accurate representation of broadband in the community.

June Update: As noted above, the survey is closed with over 1000 responses. Magellan is working to incorporate the feedback into the Report and GIS database. This will allow the team to understand the current need for broadband, where that need is concentrated and then apply those findings to a Broadband Plan. Results should be available in mid July,

MARKET RESEARCH:

May Update: Magellan has been performing a market research analysis of existing providers, what they offer and where their service is available. This includes all technologies. The survey, with its built-in speed test, will help augment the overall picture of where service is available and at what speeds. This approach creates a more accurate picture of broadband than relying on the FCC's maps, which we've found to be incomplete and inaccurate.

In addressing some of the issues identified during our outreach sessions (such as how to get more ISPs involved), we develop a SWOT picture and then work to address on any weaknesses and to capitalize on any strengths that are identified. The completed SWOT analysis will include some work we have already done and many items that are in-progress. Several deliverables for the project are in draft form and not ready to be shared with the JPUD at this point. We have not made an internal decision as to the recommended course that the PUD needs to take as we are still collecting information.

Next Steps:

June Update:

- Continue external/internal stakeholder outreach – June - July
- Collect survey and market analysis results – Mid-June - Done
- Design potential network and apply costs to both middle mile and last mile options – June/July - ongoing
- Build financial models based on costs and revenue assumptions ties into business structure – June/July - ongoing
- Determine appropriate business model/plan to support financial and service goals and share them with the PUD – July/Aug
- Write our final recommendations - Aug
- Present to Jefferson PUD management and staff - Aug

Interim determination points to JPUD being able to provide broadband to much of their service territory, but not without some effort and a plan to do so. There are many challenges with providing broadband to especially rural areas and electric utilities are better positioned than anyone to provide a solution. We will help the PUD determine what avenues/options make the most sense both financially and practically.

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