

# Garfield & Pitkin Broadband Authority

## Joint Board of County Commissioners

### March 24, 2020

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#### Background Information

**What are we doing?** Garfield and Pitkin Counties are collaborating on improving broadband services within the remote parts of each County and have jointly applied for and were awarded a grant from the Department of Local Affairs (DOLA). The grant monies will support infrastructure and wireless equipment for harder-to-serve areas throughout the region.

**Update on Broadband Status within the Counties.** A few things have changed since starting the project:

1. Ting Fiber, a subsidiary of Toronto-based Tucows recently acquired local Internet Service Provider, Cedar Networks. With Ting’s acquisition, Cedar Networks is planning to expand its fiber footprint within both Counties, focusing initially on Carbondale, Willits, Snowmass Village and Aspen.
2. Holy Cross Energy is looking into building fiber and offering services within the region. The company is studying expanding Fiber to the Premise services to its members. Holy Cross Energy is also evaluating building fiber to support its internal power management, connecting substations and communication devices in the field. There may be potential opportunities to

explore joint fiber builds to assist further expansion of fiber into more remote parts of the Counties.

3. Glenwood Springs is also further building out their fiber footprint to homes and businesses within the City of Glenwood Springs.
4. Pitkin County deployed wireless broadband from three of its communications sites and working with Mammoth Networks as its network operator.

**Is the Broadband Authority still a good idea?** Yes, although it is promising to see the efforts towards building out more fiber within our communities, the remote, harder-to-serve areas within Garfield and Pitkin Counties still lack broadband service. Although fiber is being built out in the more densely populated areas of the Counties, the remote areas will not see fiber for a long time. Garfield and Pitkin Counties are stepping in where the private sector is not offering services. These areas will most likely only be served through the use of subsidies and grants.

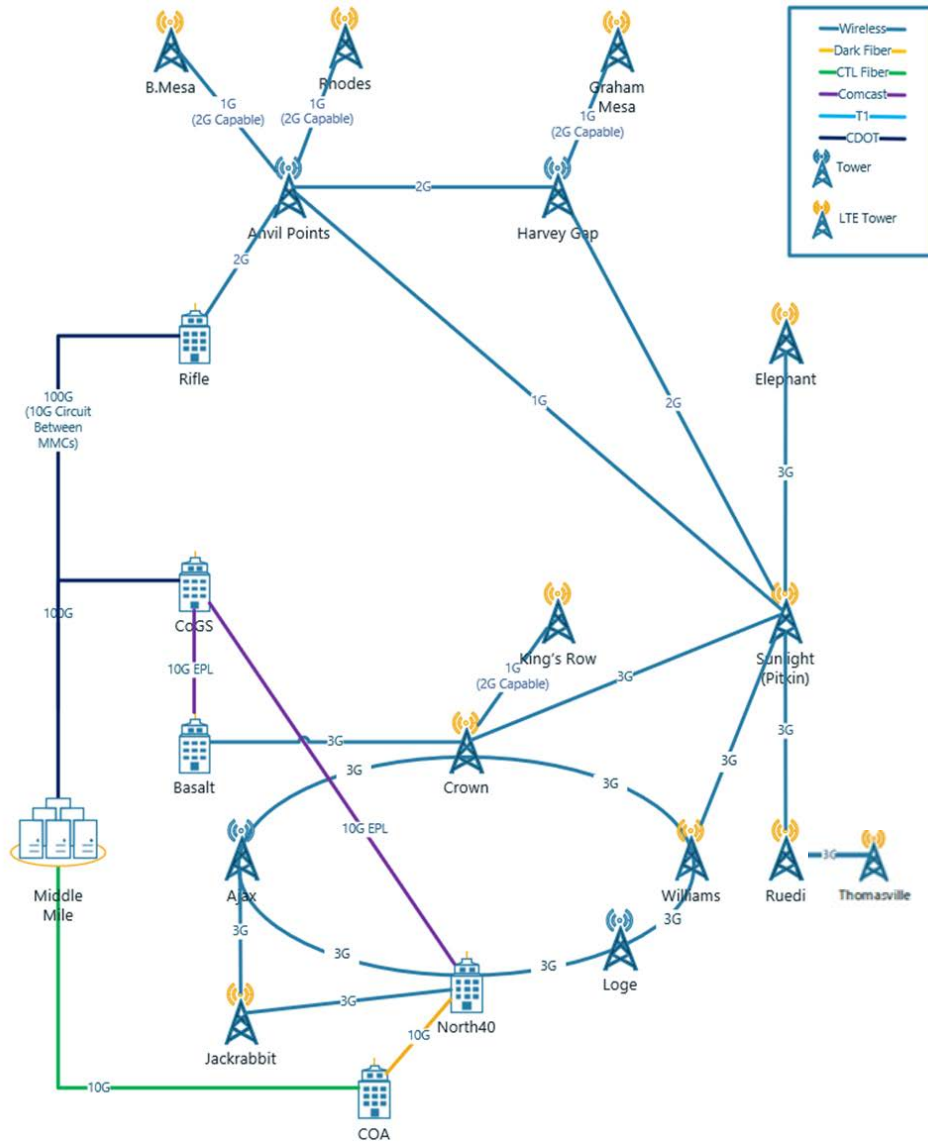
**What has been done since the last joint-County meeting?** Garfield and Pitkin County staff have worked together to update the financial models, providing conservative projections for the operating budget and identifying future capital cost needs of the Authority. Additionally, Garfield County secured needed wireless spectrum to support the wireless network and Pitkin County has piloted for the first round of LTE and CORE equipment. Based on these costs and network design changes, the Counties submitted a supplemental request to the joint DOLA award. The supplement will support the costs of equipment at the Rifle Meet-Me Center, providing further resiliency of the wireless network for both Counties and reallocate funding needed for the LTE and CORE equipment at Pitkin County communication sites.

## A Phased Network Design

Mammoth Networks established conceptual network designs for both counties through a Blueprint process. Mammoth Networks developed a phased approach to integrate the individual County networks into a regional Authority wireless network.

**Providing a More Resilient Network Configuration.** The initial design included connecting Lookout Mountain and Sunlight Mountain. However, the lack of available spectrum between the two sites created a single point of failure. To alleviate this concern the Rifle Meet-Me-Center was identified to provide redundancy and establish regional resiliency.

### Phase 1 Design with Rifle Meet Me Center



	Client	GarCo/Pitkin	Page 1 of 3	Prepared by	Evan Biagi	Date	7/9/2019
	Description	Phase 1 Combined Wireless Network		Approved by	Evan Biagi	Date	8/21/2019



## Roles and Responsibilities

At the last joint meeting, Garfield County and Pitkin County Commissioners directed staff to assume the following roles and responsibilities in the development of a cost model. Below is a chart delineating the responsibilities of the Counties, Authority, Network Operator, and the Internet Service Providers.

	County	Authority	Network Operator	Internet Service Provider(s) (ISPs)
<b>Towers</b>	County owns and operates	Leased from Counties	NA	NA
<b>Microwave</b>	County owns and operates	Bandwidth leased from counties	Coordinate with County to troubleshoot	Communicate with Network Operator on capacity needs
<b>LTE/Core Equipment</b>	None* Counties are purchasing initially equipment with DOLA grant	Authority own and provide access to Network Operator	Operate and maintain. Troubleshoots issues. Sell bandwidth wholesale to ISPs	Purchase bandwidth from Network Operator. Sell and market packaging to end user
<b>Network Operator Agreement</b>	NA	Contract directly with Operator	Contract directly with Authority.	NA
<b>ISP Agreement</b>	NA	Establish ISP minimum service guidelines. Coordinate with Network Operator to troubleshoot and ensure quality of service to end users	Request for Bids for ISPs based on minimum guidelines. Contract directly with ISPs and ensure quality of service	Contract directly with Network Operator

Garfield County and Pitkin County both selected Mammoth Networks as the Network Operator for their respective wireless networks through a competitive bid process. Pitkin County has entered into a Network Operator Agreement with Mammoth Networks for the deployment of broadband from their three towers. Subsequently, Mammoth Networks selected Visionary Broadband and Pathfinders as the two internet service providers for the network. As both counties work towards the development of the Authority, the network operator agreement can be used as framework for the Authority Network Operator Agreement.

## Financial Assumptions

At the last joint meeting, both Boards directed staff to bring back financial models for Phase 1 only Broadband Authority and a full-buildout (Phases 1-3) Broadband Authority. The costs and assumptions in both models represent a conservative approach seeking to reduce the risks where possible in order to ensure long-term viability of the network.

## Revenue Assumptions

Wireless revenues. Take rate and revenue projections were prepared by Mammoth Networks for each tower location. Based on lessons learned from Pitkin County's deployment at three sites, the financial models were revised with very conservative wireless revenue assumptions, especially in the first few years of the Authority. Many potential subscribers are currently committed to contracts with other providers and it will likely take a full year or more to realize the anticipated take rate and wireless revenues. Revenue assumptions for 2020 include (3) months of service revenue as equipment will be installed during the spring and summer months for 2020.

## Operating Expense Assumptions

Meet-Me Center Operating Expenses. A point-to-point leased circuit is necessary from the Rifle Meet-Me Center to the Glenwood Springs Meet-Me Center in order to build in resiliency to the network. The financial models assume a leased circuit will be required with monthly recurring costs. Future fiber builds may be possible to eliminate this expense, but are not currently assumed in the models.

Tower Operating Expenses. The models assume no fees for site leases from either County until year 5. Starting in year 5, the models assume the Authority would pay \$500 monthly per tower for site leases. For tertiary or water tank sites not owned by either County, it was assumed that site owners would trade for internet access in lieu of site leases. Utility costs are assumed at \$75/month per tower site, with \$1,000 monthly in maintenance and repair fees.

Five years of annual warranties and software licensing for most equipment was capitalized and shown under the capitalized costs of both models. After five years, the models show warranty and software licensing fees for most of the equipment.

Fiscal Agent. Staff agree that neither County's finance department has the capacity to operate as the Authority's fiscal agent. Both models assume all fiscal agent responsibilities (administrative, technical, legal and financial) are outsourced to a third party. With the fiscal agent outsourced, it enables the Authority to act as a stand-alone entity, not a department of either County. The following assumptions were used for fiscal agent responsibilities:

- Administrative Labor: 6 hours/month at \$45/hour, starting in July 2020
- Technical Labor, Engineering and Facilities: 20 hours/month at \$45/hour, starting in July 2020
- Fiscal Support: 8 hours/month @ \$45/hour, starting in July 2020
- Procurement Support: 5 hours/month @ \$45/hour, starting in July 2020
- Legal Costs of \$25,000 in the first year to set up the Authority and agreements, \$10,000 per year after the first year.
- Insurance: \$6,000 per year
- Administrative costs, copying, printing, postage: \$6,000 for the first year and \$12,000 per year thereafter
- Marketing costs: no costs are assumed by the Authority as the Internet Service Providers and Mammoth Networks are responsible for marketing
- Independent Audit: \$5,000 for the first year and 10,000 per year thereafter
- Contracted Technical Labor: Contracted support at \$125/hour; a budget of \$30,000 per year for years 1 and 2, \$60,000 per year, starting in year 3.

Cashflow Subsidy: In both models, the Authority has operating losses in the first three years of operations and requires an upfront subsidy of \$125,000 from each County (\$250,000 total).

### Capital Cost Assumptions

Construction and Infrastructure. The joint DOLA grant covers capital costs for construction of communication sites and wireless equipment infrastructure for each tower location and Meet-Me-Center. The cost of warranties and software upgrades are capitalized upfront for the first five years.

Equipment Refreshes. It is anticipated the access equipment has a life span of 5-6 years. Financial models assume the Authority will replace equipment in years 6, 7 and 8 for a total cost of \$900,000. Equipment refreshes are not included in the operating cashflow budget, but are shown under the capital cost projections. It is assumed that these costs could be included in a future grant application.

### Financial Models

As discussed, two variations of the operating budget for the Broadband Authority were prepared. Model A represents implementation of Phase 1 only; which consists of construction of communication sites and wireless equipment within the existing joint DOLA grant. Model B assumes implementation of all phases and tower locations of the conceptual design.

#### **What are the key take-aways from the financial models?**

The proformas for both models show the following:

- The Authority can pay site leases to each County for use of the County-owned towers, starting in Year 5.
- The Authority would continue to have excess cashflows to allow it to meet the cash reserve requirement of 16.5% of operating expenses.
- Excess cashflows can pay for future equipment refreshes, or further grant funding could be sought to pay for equipment replacement.
- Grant funding or other financing would be required for capital expenses for future phases
- Although the Phase 1 Only model is feasible, the All Phase model, with relatively-minor additional capital, is more financially sustainable and serves a larger number of households.

#### Model A: Phase 1 Only

In Model A, the Authority generates positive cashflow in Year 3, is able to cover its operating costs, pay lease fees for use of existing towers, but would not be able to pay back the subsidy until Year 7. The subsidy could be paid fully with 2% interest over five years. Under this scenario, the Authority will not be able to build enough cash reserves to pay for future equipment refreshes or future capital needs.

#### Model B: All Phases

In Model B, the Authority becomes positive in Year 3, is able to cover its operating costs, pay lease fees for use of existing towers and repay the subsidy starting in Year 5 over a two-year period. Profits in later years start to accumulate enough cash to potentially pay for equipment refreshes.

## Model A: Phase 1 Only

### Operating Cashflows, Broadband Authority, Pre-DOLA and Phase 1 Grant

	Start up	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Beginning Cash Balance (\$125,000 from both Counties)</b>	\$ 250,000										
<b>Authority Revenues</b>											
Pitkin Co. Tower Site Revenues	\$ 8,193	\$ 32,770	\$ 85,436	\$ 127,130	\$ 148,512	\$ 169,728	\$ 190,944	\$ 212,160	\$ 212,160	\$ 212,160	\$ 212,160
Garfield Co Tower Site Revenues	\$ 6,620	\$ 26,480	\$ 68,870	\$ 102,240	\$ 119,280	\$ 136,320	\$ 153,360	\$ 170,400	\$ 170,400	\$ 170,400	\$ 170,400
<b>Total Revenues</b>	<b>\$ 14,813</b>	<b>\$ 59,250</b>	<b>\$ 154,306</b>	<b>\$ 229,370</b>	<b>\$ 267,792</b>	<b>\$ 306,048</b>	<b>\$ 344,304</b>	<b>\$ 382,560</b>	<b>\$ 382,560</b>	<b>\$ 382,560</b>	<b>\$ 382,560</b>
<b>Operating Expenses</b>											
<b>Meet-Me Center Operating Expenses</b>											
Leased 10G circuit, Rifle to Glenwood Springs	\$ 17,000	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400
<b>Tower Operating Expenses</b>											
Site Leases	\$ -	\$ -	\$ -	\$ -	\$ 78,000	\$ 78,000	\$ 78,000	\$ 78,000	\$ 78,000	\$ 78,000	\$ 78,000
Utility costs	\$ 8,325	\$ 17,100	\$ 17,100	\$ 17,100	\$ 17,100	\$ 17,100	\$ 17,100	\$ 17,100	\$ 17,100	\$ 17,100	\$ 17,100
Maintenance and repair	\$ 6,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000
Warranties / Software Licensing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 36,279	\$ 59,912	\$ 70,386	\$ 70,386	\$ 70,386	\$ 70,386
<b>Fiscal Agent Support</b>											
Administrative Labor	\$ 1,620	\$ 3,240	\$ 3,240	\$ 3,240	\$ 3,240	\$ 3,240	\$ 3,240	\$ 3,240	\$ 3,240	\$ 3,240	\$ 3,240
Engineering and Facilities	\$ 5,400	\$ 10,800	\$ 10,800	\$ 10,800	\$ 10,800	\$ 10,800	\$ 10,800	\$ 10,800	\$ 10,800	\$ 10,800	\$ 10,800
Fiscal Support	\$ 2,700	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400
Procurement Support	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200
Legal costs	\$ 25,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Insurance	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000
Administrative costs, copying, printing, postage	\$ 6,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000
Independent Audit, Garfield County	\$ 5,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Contracted Technical Labor and Consulting	\$ 30,000	\$ 30,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000
<b>Total Operating Expenses</b>	<b>\$ 114,245</b>	<b>\$ 156,140</b>	<b>\$ 186,140</b>	<b>\$ 186,140</b>	<b>\$ 264,140</b>	<b>\$ 300,419</b>	<b>\$ 324,052</b>	<b>\$ 334,526</b>	<b>\$ 334,526</b>	<b>\$ 334,526</b>	<b>\$ 334,526</b>
<b>Profit or (Loss)</b>	<b>\$ (99,433)</b>	<b>\$ (96,890)</b>	<b>\$ (31,834)</b>	<b>\$ 43,230</b>	<b>\$ 3,652</b>	<b>\$ 5,629</b>	<b>\$ 20,252</b>	<b>\$ 48,034</b>	<b>\$ 48,034</b>	<b>\$ 48,034</b>	<b>\$ 48,034</b>
Repayment of Subsidies and Cash Matches						\$ -	\$ -	\$ 51,000	\$ 51,000	\$ 51,000	\$ 51,000
<b>Ending Cash Balance</b>	<b>\$ 150,568</b>	<b>\$ 53,678</b>	<b>\$ 21,844</b>	<b>\$ 65,074</b>	<b>\$ 68,726</b>	<b>\$ 74,355</b>	<b>\$ 94,607</b>	<b>\$ 91,642</b>	<b>\$ 88,676</b>	<b>\$ 85,711</b>	<b>\$ 82,745</b>
Cash Reserve, 16.7% of Operating Expenses	\$ -	\$ 26,075	\$ 31,085	\$ 31,085	\$ 44,111	\$ 50,170	\$ 54,117	\$ 55,866	\$ 55,866	\$ 55,866	\$ 55,866
<b>Capital Expenditures</b>											
Phase 1 Tower and Wireless Equipment	\$ 1,646,155.60										
Rifle Meet Me Center Supplemental	\$ 326,637.81										
Equipment Refreshes Pitkin Co. Tower Sites							\$ 250,000.00	\$ 250,000.00			
Equipment Refreshes Garfield Co. Tower Sites							\$ 200,000.00	\$ 200,000.00	\$ 200,000.00		
<b>Total Capital Expenses</b>	<b>\$ 1,972,793.41</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 450,000.00</b>	<b>\$ 450,000.00</b>	<b>\$ 200,000.00</b>	<b>\$ -</b>	<b>\$ -</b>



## Model B: All Phases

### Operating Cashflows, Broadband Authority, All Phases

	Start up	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Beginning Cash Balance (\$125,000 from each County)</b>	\$ 250,000										
<b>Authority Revenues</b>											
Pitkin Co. Tower Site Revenues	\$ 8,193	\$ 32,770	\$ 85,676	\$ 141,710	\$ 178,248	\$ 206,784	\$ 235,872	\$ 265,680	\$ 265,680	\$ 265,680	\$ 265,680
Garfield Co Tower Site Revenues	\$ 6,620	\$ 26,480	\$ 77,140	\$ 136,080	\$ 172,704	\$ 199,104	\$ 225,936	\$ 252,960	\$ 252,960	\$ 252,960	\$ 252,960
<b>Total Revenues</b>	<b>\$ 14,813</b>	<b>\$ 59,250</b>	<b>\$ 162,816</b>	<b>\$ 277,790</b>	<b>\$ 350,952</b>	<b>\$ 405,888</b>	<b>\$ 461,808</b>	<b>\$ 518,640</b>	<b>\$ 518,640</b>	<b>\$ 518,640</b>	<b>\$ 518,640</b>
<b>Operating Expenses</b>											
<b>Meet-Me Center Operating Expenses</b>											
Leased 10G circuit, Rifle to Glenwood Springs	\$ 17,000	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400
<b>Tower Operating Expenses</b>											
Site Leases	\$ -	\$ -	\$ -	\$ -	\$ 78,000	\$ 78,000	\$ 78,000	\$ 78,000	\$ 78,000	\$ 78,000	\$ 78,000
Utility costs	\$ 8,325	\$ 17,100	\$ 17,100	\$ 17,100	\$ 17,100	\$ 17,100	\$ 17,100	\$ 17,100	\$ 17,100	\$ 17,100	\$ 17,100
Maintenance and repair	\$ 6,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000
Warranties / Software Licensing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 36,279	\$ 59,912	\$ 70,386	\$ 70,386	\$ 70,386	\$ 70,386
<b>Fiscal Agent Support</b>											
Administrative Labor	\$ 1,620	\$ 3,240	\$ 3,240	\$ 3,240	\$ 3,240	\$ 3,240	\$ 3,240	\$ 3,240	\$ 3,240	\$ 3,240	\$ 3,240
Engineering and Facilities	\$ 5,400	\$ 10,800	\$ 10,800	\$ 10,800	\$ 10,800	\$ 10,800	\$ 10,800	\$ 10,800	\$ 10,800	\$ 10,800	\$ 10,800
Fiscal Support	\$ 2,700	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400	\$ 5,400
Procurement Support	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200
Legal costs	\$ 25,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Insurance	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000
Administrative costs, copying, printing, postage	\$ 6,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000
Independent Audit, Garfield County	\$ 5,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Contracted Technical Labor and Consulting	\$ 30,000	\$ 30,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000
<b>Total Operating Expenses</b>	<b>\$ 114,245</b>	<b>\$ 156,140</b>	<b>\$ 186,140</b>	<b>\$ 186,140</b>	<b>\$ 264,140</b>	<b>\$ 300,419</b>	<b>\$ 324,052</b>	<b>\$ 334,526</b>	<b>\$ 334,526</b>	<b>\$ 334,526</b>	<b>\$ 334,526</b>
<b>Profit or (Loss)</b>	<b>\$ (99,433)</b>	<b>\$ (96,890)</b>	<b>\$ (23,324)</b>	<b>\$ 91,650</b>	<b>\$ 86,812</b>	<b>\$ 105,469</b>	<b>\$ 137,756</b>	<b>\$ 184,114</b>	<b>\$ 184,114</b>	<b>\$ 184,114</b>	<b>\$ 184,114</b>
Repayment of Subsidies and Cash Matches						\$ 127,500	\$ 127,500				
<b>Ending Cash Balance</b>	<b>\$ 150,568</b>	<b>\$ 53,678</b>	<b>\$ 30,354</b>	<b>\$ 122,004</b>	<b>\$ 208,816</b>	<b>\$ 186,785</b>	<b>\$ 197,041</b>	<b>\$ 381,156</b>	<b>\$ 565,270</b>	<b>\$ 749,385</b>	<b>\$ 933,499</b>
Cash Reserve, 16.7% of Operating Expenses	\$ -	\$ 26,075	\$ 31,085	\$ 31,085	\$ 44,111	\$ 50,170	\$ 54,117	\$ 55,866	\$ 55,866	\$ 55,866	\$ 55,866
<b>Capital Expenditures</b>											
Phase 1 Tower and Wireless Equipment	\$ 1,646,155.60										
Rifle Meet Me Center Supplemental	\$ 326,637.81										
Phase 2 Tower and Wireless Equipment		\$ 495,981.55									
Phase 3 Tower and Wireless Equipment			\$ 684,760.62								
Equipment Refreshes, Pitkin Co. Tower Sites							\$ 250,000.00	\$ 250,000.00			
Equipment Refreshes, Garfield Co. Tower Sites							\$ 200,000.00	\$ 200,000.00	\$ 200,000.00		
<b>Total Capital Expenses</b>	<b>\$ 1,972,793.41</b>	<b>\$ 495,981.55</b>	<b>\$ 684,760.62</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 450,000.00</b>	<b>\$ 450,000.00</b>	<b>\$ 200,000.00</b>	<b>\$ -</b>	<b>\$ -</b>

## Timeline and Key Milestones

Below are the critical next steps or milestones for setting up the Authority and the associated timing of the milestones.

1. Agreement from Boards to set up the Authority and Move Forward (now)
2. Amend the existing IGA between Garfield and Pitkin Counties that was used for the DOLA joint-grant application, by creating an addendum to the IGA to set up the Authority, and execute the responsibilities of the joint-grant award (As soon as possible, March)
  - a. Create Authority
  - b. Set up legal framework of the Authority
  - c. Identify the 3<sup>rd</sup> party fiscal agent
  - d. Order Equipment (April)
  - e. Enter into/amend Network Operator Agreement
3. Engage with Attorney, Ken Fellman to Establish the Authority (now)
4. Engage with Mammoth to order and install equipment, set up wireless network for Phase 1 (June – September)
5. Go live with wireless services (September – November)

## Broadband Authority Considerations

There are a number of considerations to set up the Authority. The items required per statute (Special District under C.R.S 29-1-203.5) are:

Name of Authority: Garfield Pitkin Broadband Authority

Board Make-up:

- 5-member board
  - (1) Garfield BOCC
  - (1) Pitkin BOCC
  - (1) Community representative appointed by Garfield BOCC
  - (1) Community representative appointed by Pitkin BOCC
  - (1) At-large jointly appointed by Garfield BOCC
- Manner of appointment  
BOCC approval as outlined above
- Terms of office  
4-year terms. Start initially with staggered terms

Additional considerations beyond statute requirements:

Goals of the Authority:

- To establish a middle-mile network to provide rural, unserved areas with fixed-wireless broadband services.
- The Authority shares operating costs and shares wireless revenues, agnostic of last mile serves provided.

- The Authority, rather than County jurisdictions, is ultimately responsible for the long-term operations of the network. Neither County is in the business of broadband, but rather, provides initial funding, through grants and subsidies, to build the backbone network to jumpstart the efforts.

Key mechanisms to accomplish these goals:

1. Garfield and Pitkin Counties bring respective infrastructure to the Authority. Each jurisdiction retains ownership of the towers and microwave point-to-point equipment.
  - Demarcation (D-mark) is at the Core equipment.
2. Network and Network Expansion
  - Authority maintains agreement with network operator (Mammoth agreements will roll into Authority jurisdiction.)
  - Authority funds expansion of network (secondary/tertiary towers and additional equipment through grants and other funding)
3. Fiscal Agent
  - Initial stand up of Authority will require outsourced, fiscal agent resources.
  - Long-term goal is that Authority is sustainable outside of County resources.
  - Services will be on a contract basis with control elements limited to just necessities and outlined in contract (i.e. firing staff who violate drug or alcohol policies).
4. Other Considerations
  - Additional members. Broadband Authority will be stood up with Pitkin and Garfield as initial members. The framework for the Authority will be developed to allow other jurisdictions to join the Authority. For example, Eagle County and Holy Cross Energy may become future members of the Authority.

## Key Discussion/Decision Points

- Do Garfield and Pitkin County Boards support staff recommendation of:
  - Move forward with All-Phase Buildout
  - \$125,000 subsidy from each County
  - Outsource Fiscal Agent responsibilities
- Authority Governance
  - 5-member board as outlined above
- Next steps:
  - Direct staff to move forward with formation of Authority
  - Work with legal sources to draft and execute Authority requirements (Bylaws, IGA)
  - County staff work with Mammoth Networks to execute Network Operator Agreement and procure LTE and Core equipment
  - Continue construction schedule for deployment of services in the September-November 2020 timeframe.