



# BROADBAND SUMMIT

JAN 26-27, 2023

SAWGRASS MARRIOTT  
ST. JOHNS COUNTY

# **Planning your Broadband Vision: From Feasibility to Future-Proofed**



# Introduction



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Apalachee Regional Planning Council



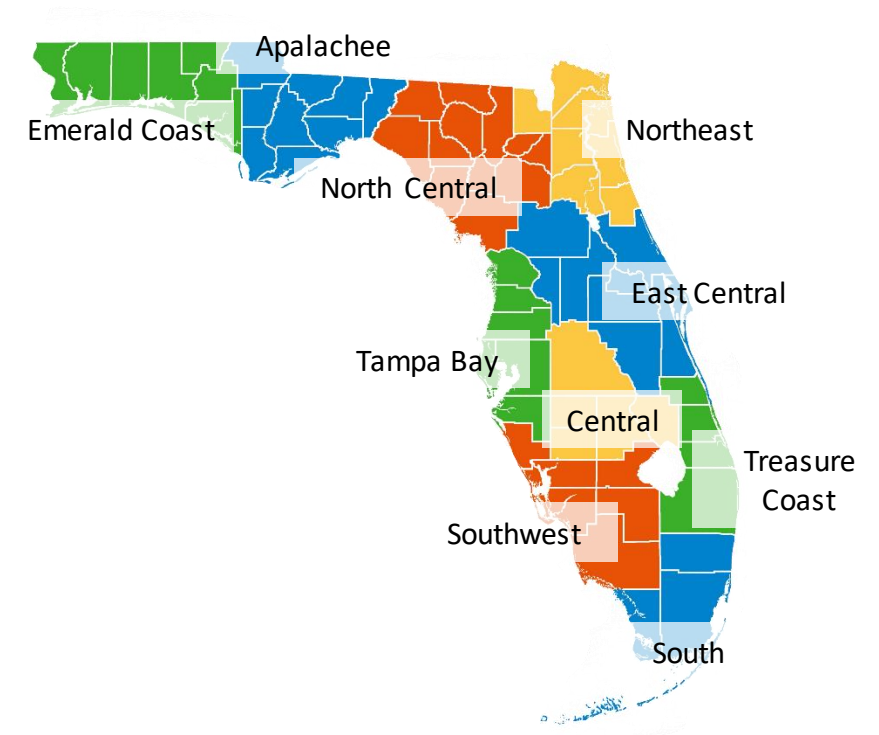
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# Context

**Who are we, and  
what do we do?**

# Florida Regional Councils Association - FRCA

FRCA is an alliance of Florida's 10 Regional Planning Councils (RPCs) and serves to enhance regional prosperity throughout the state. RPCs are multi-purpose entities that partner with local governments, as well as state and federal agencies, to solve problems at the regional level and help communities grow.



# Florida Regional Councils Association - FRCA

## 5 Primary Focus Areas



# Apalachee Regional Planning Council – ARPC

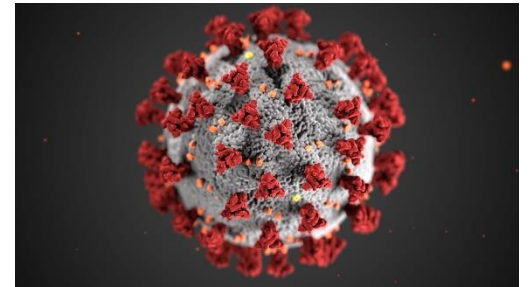
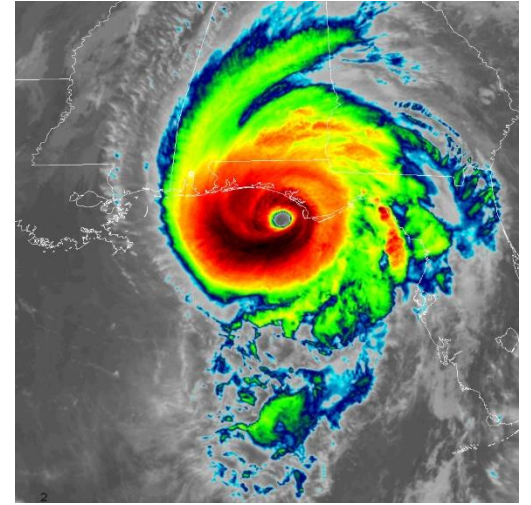
- Provides technical assistance to member local governments
- Serves as a regional convener
- View ourselves as an extension of county staff





# Regional Background

- 2018 – Hurricane Michael
  - \$1.3B Timber Lost
- 2020 – Covid-19 Pandemic
- 2022 – Wildfires





# Importance Of Broadband

## Government Services

- Makes services readily available to residents

## Telehealth

- Improves healthcare outcomes and extends reach of service

## Education

- Allows opportunity for distance learning

## Public safety

- Increases emergency services response time and connectivity

## Economic

## Development

- Aids local businesses with productivity
- Allows for remote work for employees



# Context Continued...



- Rural counties are currently experiencing significant disparities in broadband provision compared to more urban counties.
- The quality and availability of broadband service creates a service gap in rural counties.
- Broadband is not considered a public utility, there is not a requirement for universal provision.
- There are significant barriers to establishing municipal broadband throughout the state.

# Technical Assistance & Partnerships

Counties began identifying access to affordable high-speed broadband as a NEED for residents and businesses.

DEO Rural Infrastructure Fund

Liberty & Wakulla Counties

Apalachee Regional Planning Council

FSU Department of Urban and Regional Planning

Broadband Feasibility Study – Implementation Plan

# Florida State University



**Barnebey Planning  
& Development Lab**

# Partnerships Continued...

- ARPC partnered with FSU/Barnebey Lab
  - Provided 8+ months of assistance across 2 semesters
- Worked in both Liberty and Wakulla Counties
  - Data Collection / Surveying
  - Public Meetings
  - Market Analysis
  - Feasibility Studies
  - Story Maps
  - Implementation Plan

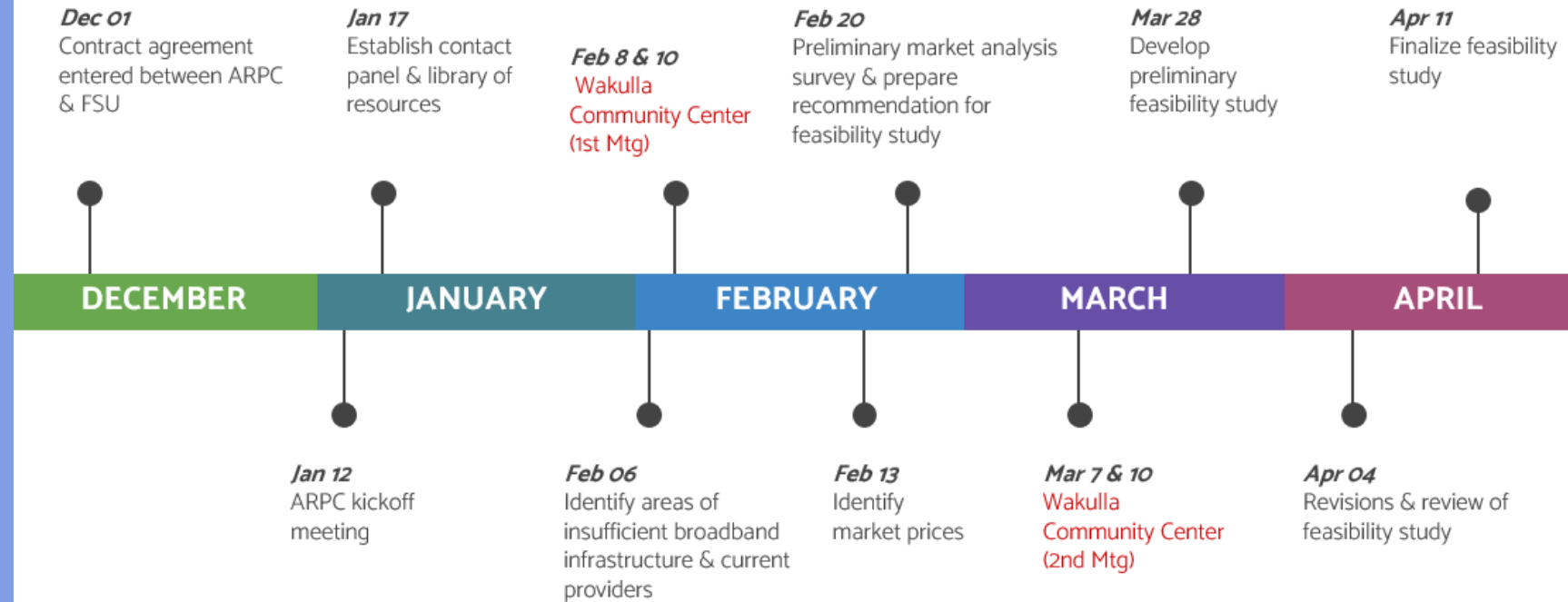
# Project Timeline

Dec 2021

To

Aug 2022

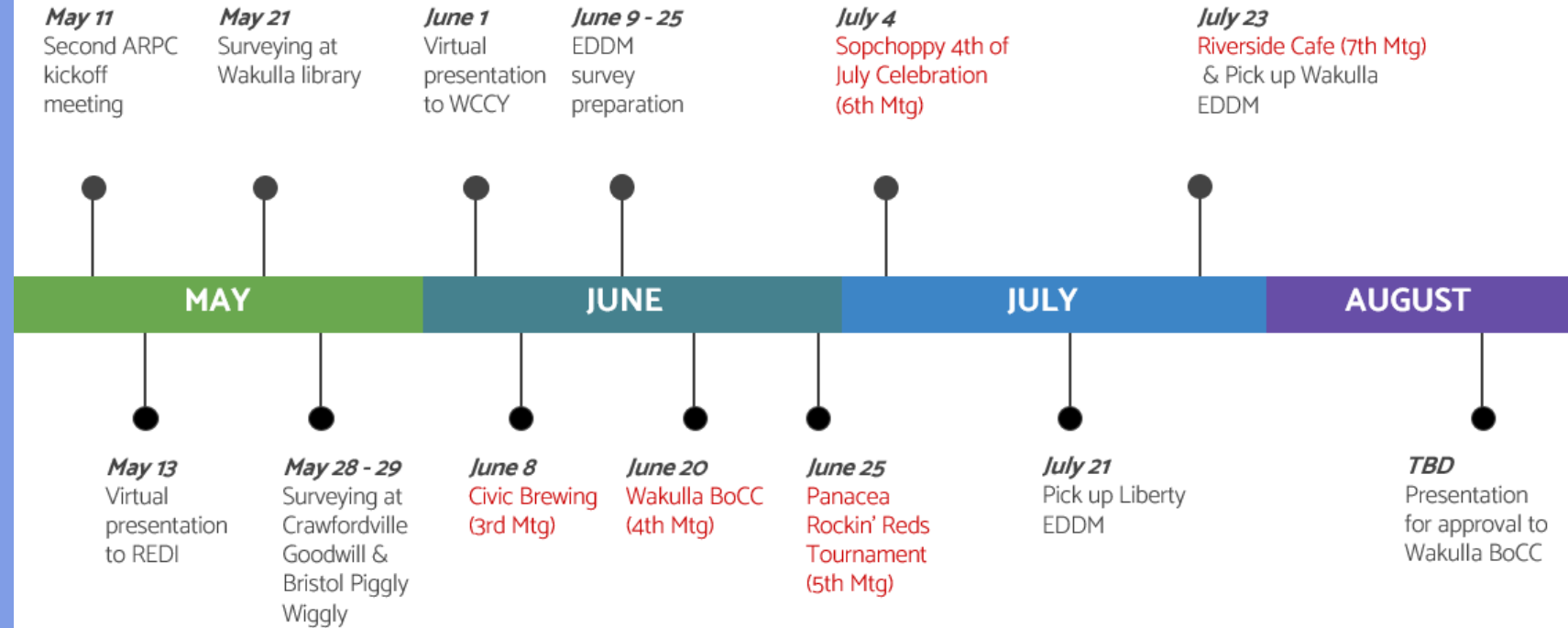
## Using Wakulla County as the example





# Project Timeline

Dec 2021  
To  
Aug 2022



# Digital Divide In Florida

Location	Percent of Households with Broadband Subscription	Percent of Households with income < \$35,000 with Broadband Subscription	Percent of Non-white Households with Broadband Subscription	Percent of Age 65 & over Households with Broadband Subscription
Florida	83%	67%	83%	78%
Wakulla	79%	66%	64%	76%

# Community Outreach & Innovative Strategies

## Wakulla Meetings:

1. Wakulla Community Center
2. Wakulla Community Center
3. Civic Brewing
4. Wakulla BoCC
5. Panacea Rockin' Reds Tournament
6. Sopchoppy 4th of July Celebration
7. Riverside Cafe
8. Wakulla BoCC - approval



# Community Outreach & Innovative Strategies

## Every Door Direct Mail (EDDM)

- USPS direct mail program
- Cost effective alternative to traditional postage
- Targeted most rural areas
- Raffle incentive
- Coordinated with local governments and businesses for drop-off locations
- Mail routes and PO boxes
  - 683 surveys delivered

# Story Map

[Background & Overview](#)

[Public Outreach](#)

[Broadband Feasibility Report](#)

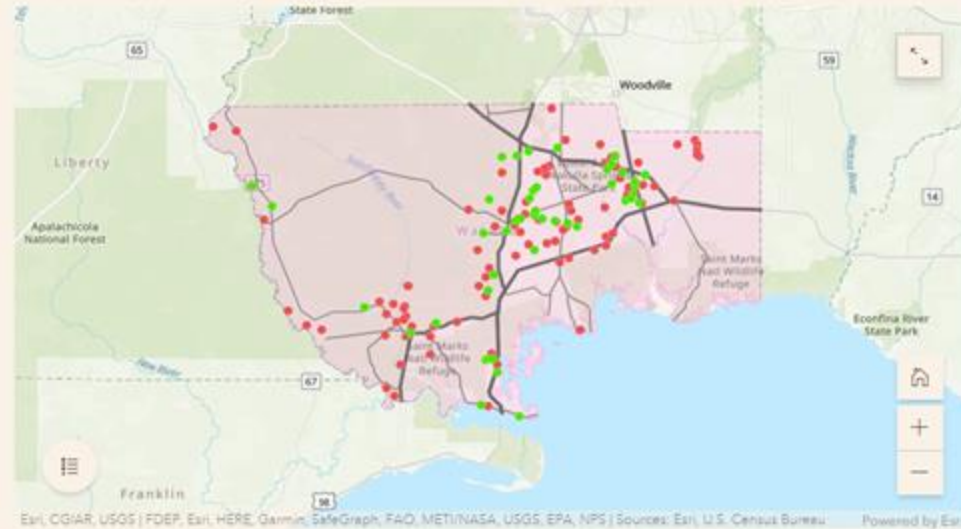
[Broadband Alternatives](#)

[Results of Survey Questions](#)

[Survey Link](#)

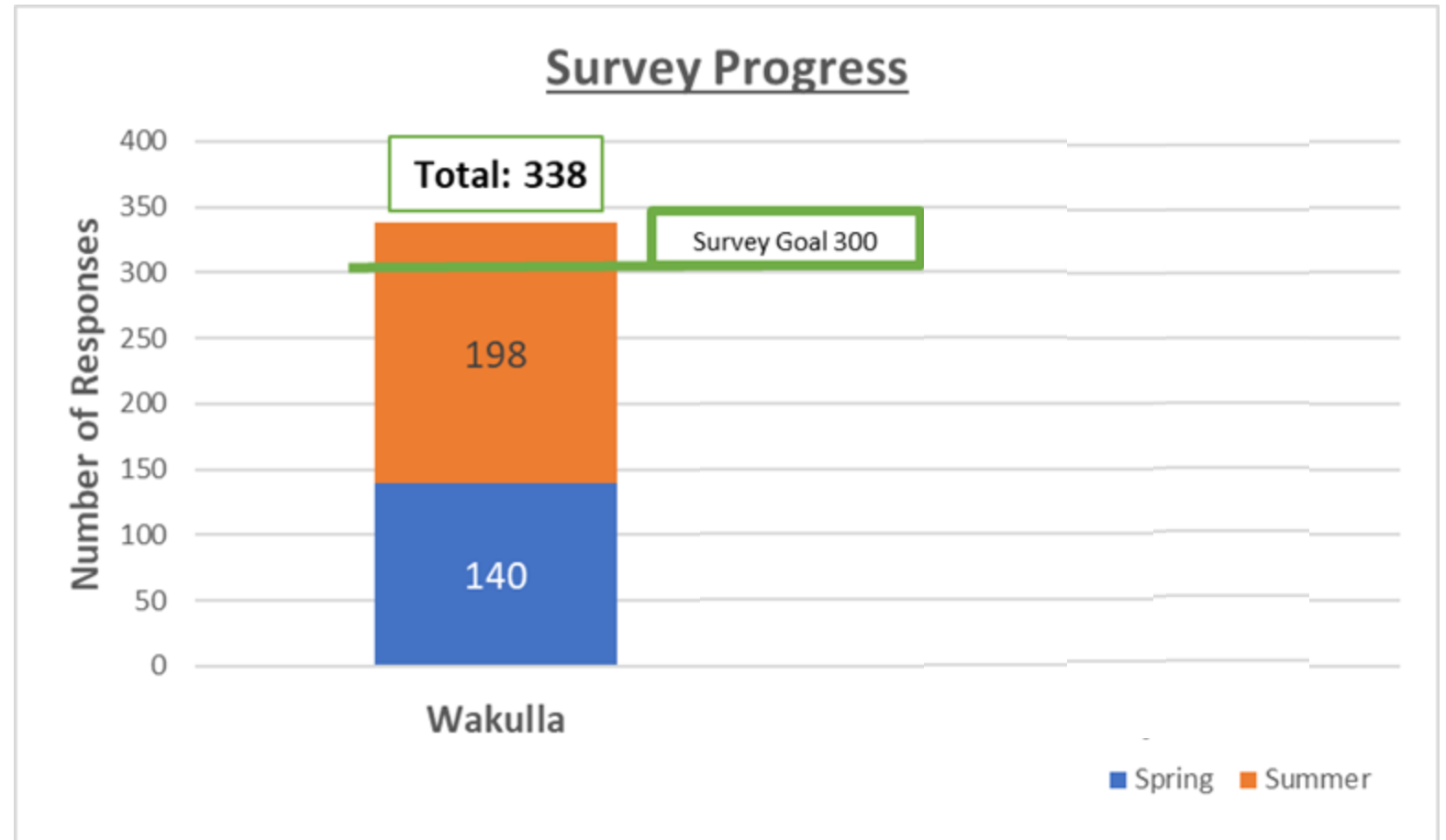
[Resources](#)

Most survey respondents reported being dissatisfied with their internet quality. Sixty-one percent of Wakulla residents surveyed stated being unsatisfied, with Liberty residents stating a an even larger 75 percent.



The map above plots the Wakulla County survey responses from the pie chart above, so we can get an idea of how the internet quality is across the county. Repondents who answered "Yes" are shown in green and "No" in red.

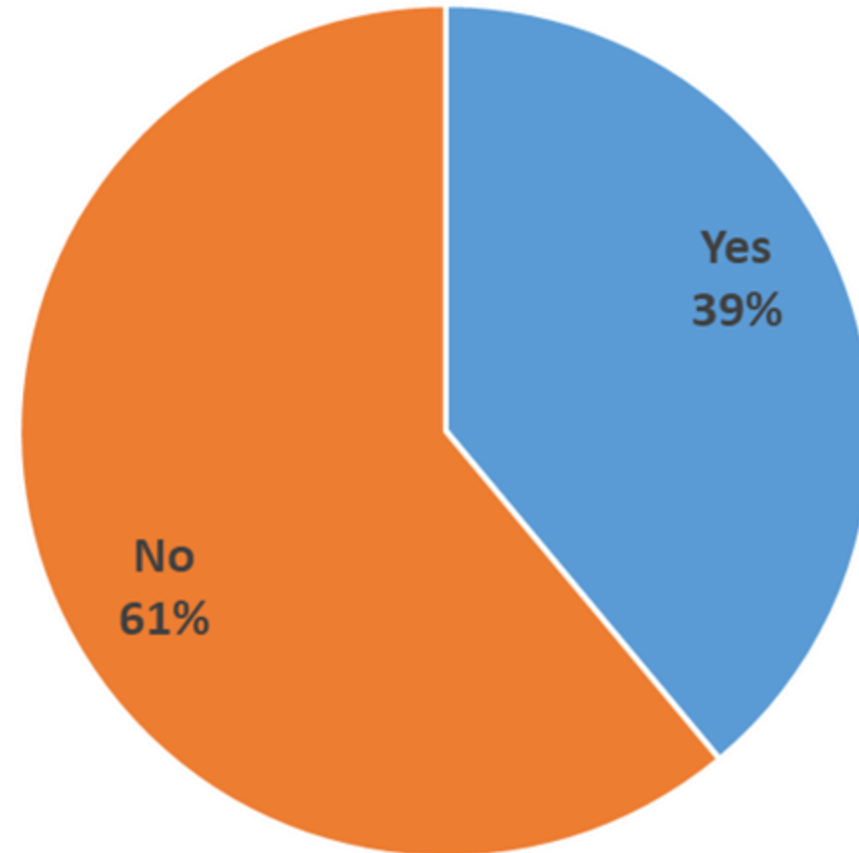
# Findings





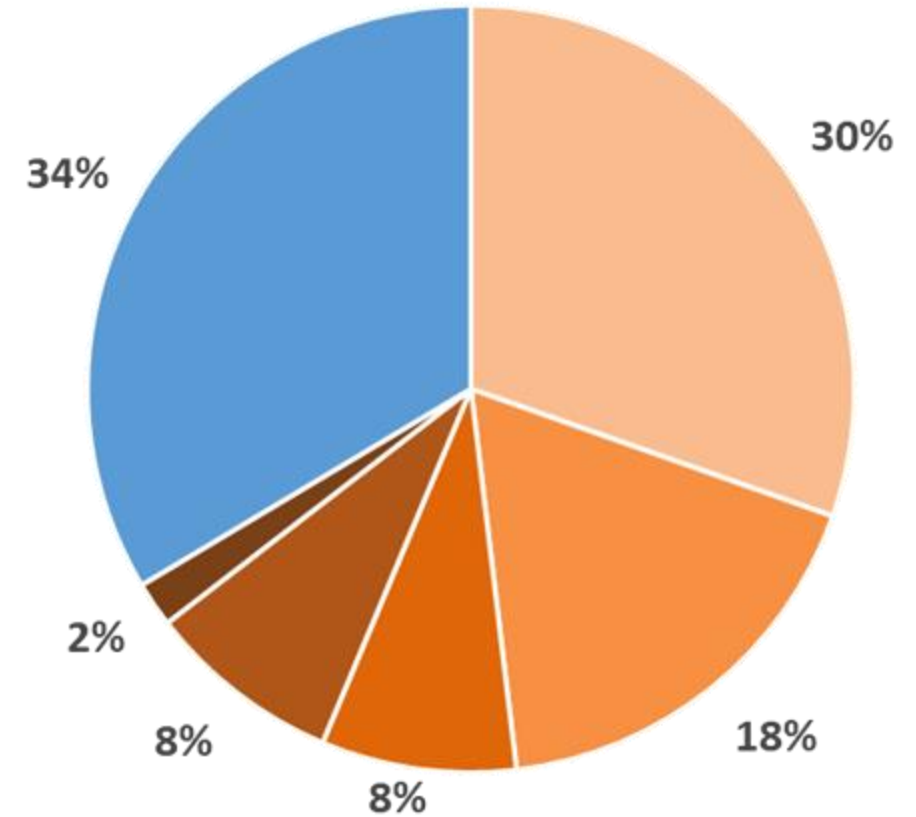
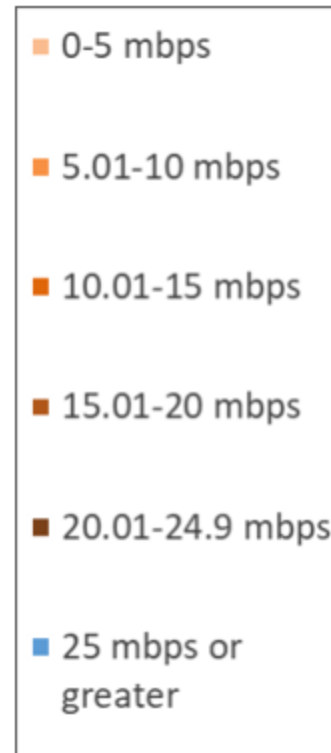
# Findings

Does your current internet service meet your needs?



# Findings

## Current Internet Speed



# Alternatives

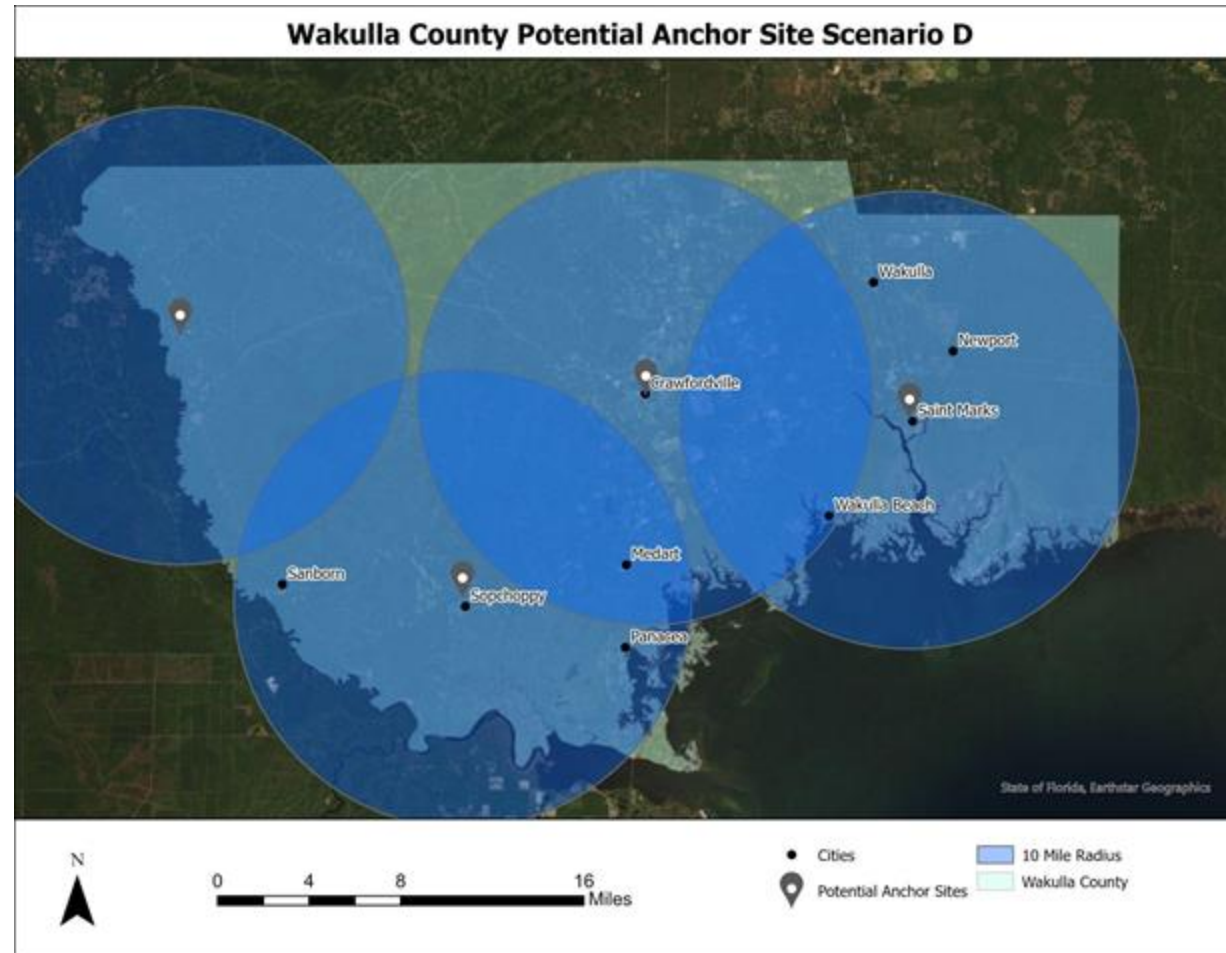
# Administrative Approach

Public Sector	Private Sector	Public-Private Partnership (PPP)
Local government would be responsible for all infrastructure, implementation, and subscription services, and customers would pay the city directly.	Private corporation would be responsible for all infrastructure, implementation, and subscription services, and customers would pay corporation directly.	Collaboration between governments and private entities where private capital is used to stimulate public projects before drawing upon taxes to cover costs.
<b>Strengths</b> <ul style="list-style-type: none"> <li>• Costs are often subsidized for consumer</li> <li>• Potentially more equitable options</li> <li>• Acts as a safety-net</li> <li>• More public input</li> </ul>	<b>Strengths</b> <ul style="list-style-type: none"> <li>• More potential capital to work with</li> <li>• Potentially faster completion</li> <li>• More market competition</li> <li>• Less bound by legislation</li> <li>• Take on any risks and debt</li> </ul>	<b>Strengths</b> <ul style="list-style-type: none"> <li>• Combines public and private resources for more overall support</li> <li>• Faster project completions and reduced delays</li> <li>• Draws upon expertise of private company</li> <li>• Reduced policy barriers for private company</li> </ul>
<b>Weaknesses</b> <ul style="list-style-type: none"> <li>• Slower implementation</li> <li>• More costs for government</li> <li>• Bound by legislation</li> </ul>	<b>Weaknesses</b> <ul style="list-style-type: none"> <li>• Less equitable</li> <li>• Status quo</li> <li>• More costs for consumer</li> <li>• Needs ROI</li> </ul>	<b>Weaknesses</b> <ul style="list-style-type: none"> <li>• May incur greater costs for government in long run</li> <li>• Possible tax increases to cover project</li> <li>• Limits market competition</li> <li>• Public reliance on private company</li> </ul>

# Implementation Strategies

Anchor Points \$	Hybrid Fiber \$\$	Fiber – to – Home \$\$\$
<p>Installation and use of fiber infrastructure connected to public locations throughout the county to create "anchor points".</p> <p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Provides potentially free internet for residents at public locations</li> <li>• Already partially available (libraries, schools, etc.)</li> <li>• Realistic and feasible as costs and infrastructure not as significant as compared to other alternatives</li> </ul> <p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Requires travel to site</li> <li>• Internet services restricted to operating hours of site</li> <li>• Not personable/lack of customizable technology</li> <li>• Security risks due to public access</li> </ul>	<p>Able to address internet coverage issues by pairing together existing fiber infrastructure with new fixed wireless tower installations.</p> <p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Can offer up to a 10-mile radius signal</li> <li>• Alleviates the need to run in-ground infrastructure to each resident</li> <li>• Activates current "dark fiber" networks</li> </ul> <p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Signal quality degrades the further away from the signal origin</li> <li>• Weather can negatively impact signals</li> <li>• New towers typically cost \$175,000</li> </ul>	<p>The installation and use of optical fiber from a central point directly to residential addresses and private businesses to provide high-speed internet access.</p> <p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Fastest and most reliable option</li> <li>• Allows for market competition</li> <li>• Grant options</li> <li>• Favorable policies ("Dig-once Policy")</li> </ul> <p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Most expensive option (fiber typically costs \$74,000 per mile)</li> <li>• Costs based on usability of current lines and/or require newly constructed lines</li> <li>• Need ROI so costs may be higher for consumer</li> </ul>

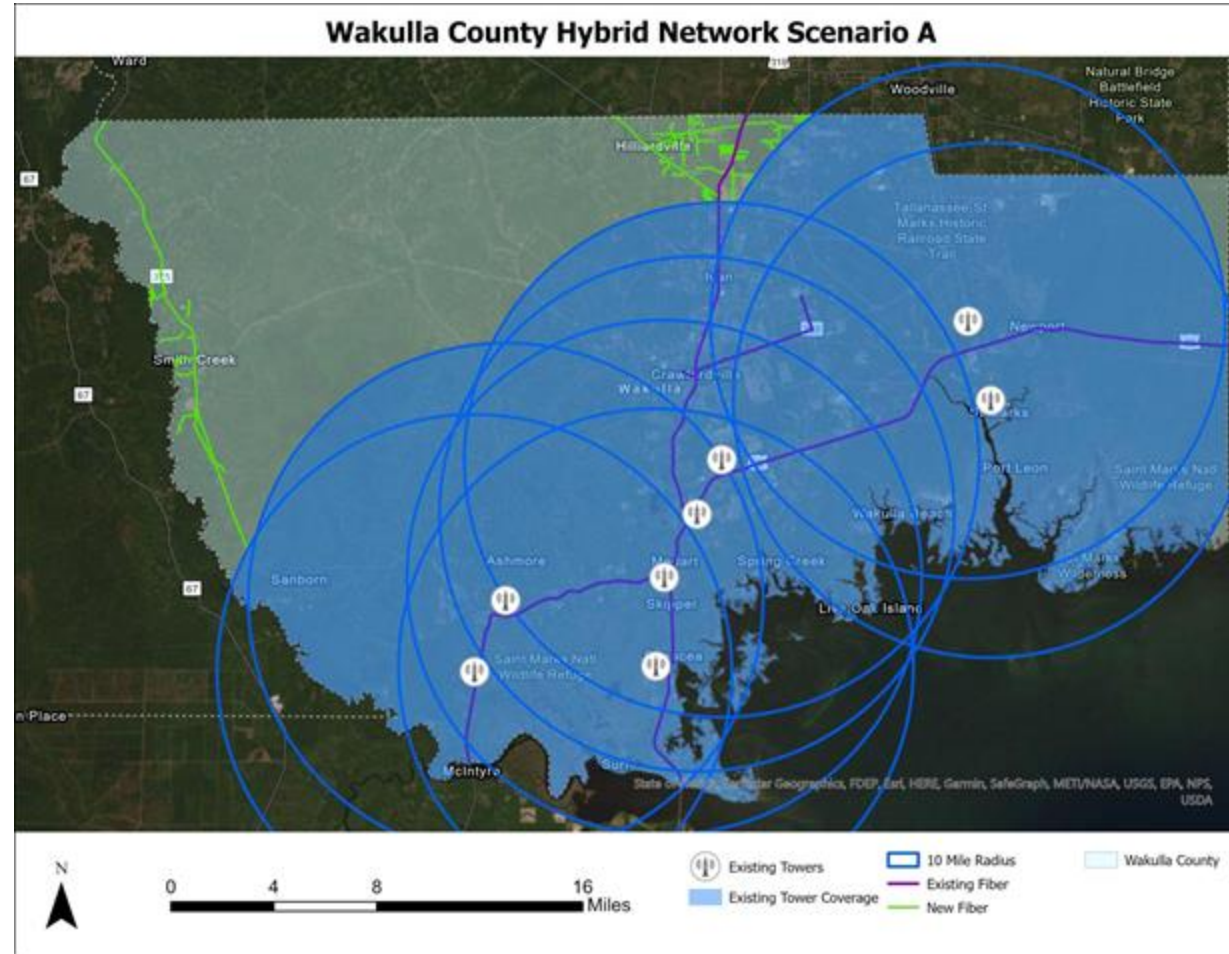
# Anchor Points Example



Anchor Points D	
Cost Formula	\$112,000 per anchor point site
Anchor Points to be Implemented	4
Total Cost Estimate	\$448,000
Percent of Population Covered	93%

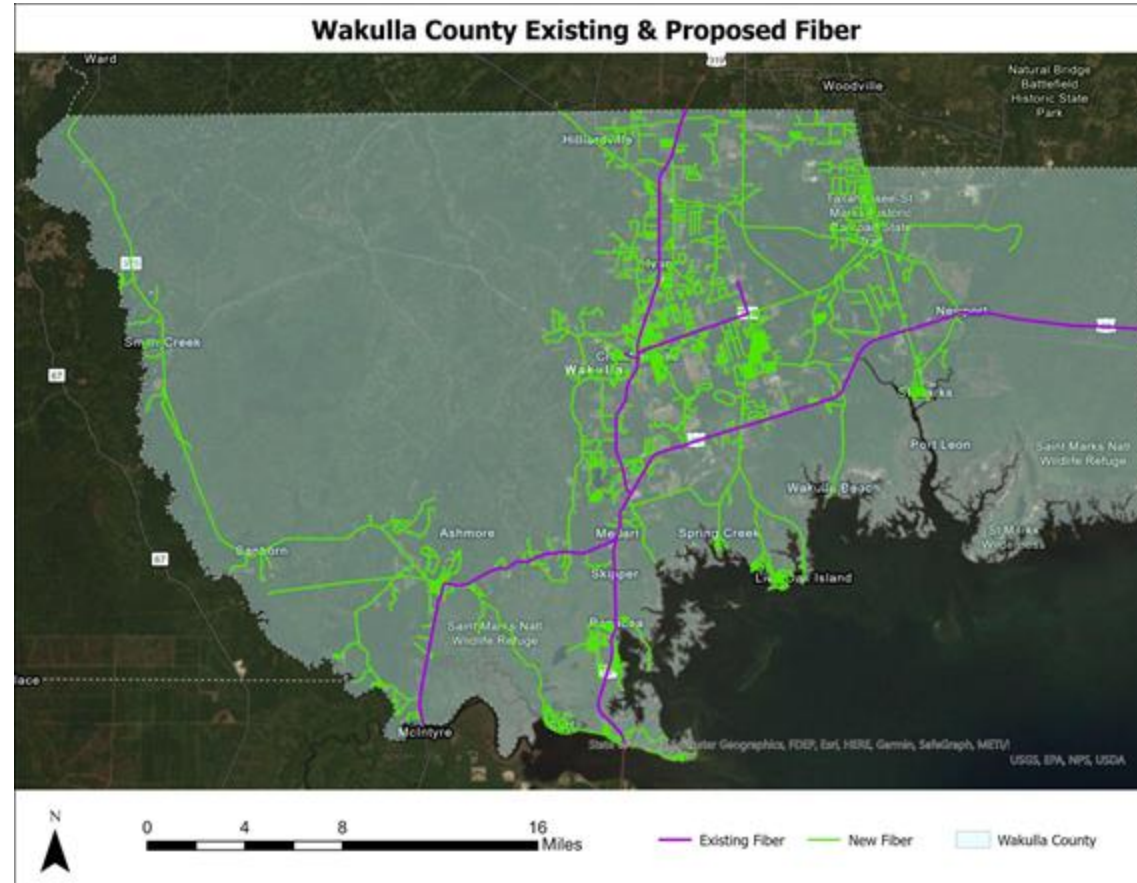


# Hybrid Model Example



Hybrid Network A	
Cost Formula	\$175,000 per tower + \$74,000 per mile of fiber + \$600 per home
Existing Infrastructure	10 towers, 64 miles of fiber
Additional Infrastructure Needed	0 towers, 58 miles of fiber
Total Cost Estimate	\$5.1 million
Percent of Population Covered	100%

# Hybrid Model Example



Fiber-to-Home	
Cost Formula	\$74,000 per mile of fiber + \$600 per home
Existing Infrastructure	64 miles of fiber
Additional Infrastructure Needed	671 miles of fiber
Total Cost Estimate	\$58 million
Percent of Population Covered	100%

# Deliverables

# Feasibility Report

## Chapter 1: Introduction

- Project Background
- Executive Summary

## Chapter 2: Barriers and Limitations

- Time
- Funding
- Government Regulations
- Provider Willingness
- Insufficient Data

## Chapter 3: Community Survey & Outreach

- Survey Methodology
- Public Workshops
- Final Surveys & Outreach Results
- Survey Limitations and Future Opportunities



# Feasibility Report

## Chapter 4: Broadband Alternatives

- Administrative Approaches
- Implementation Strategies

## Chapter 5: Cost Estimates

- Implementation strategy cost scenarios & estimates

## Chapter 6: Next Steps

- Approval
- Implementation
- Conclusion

## Chapter 7: Appendices

- Supporting maps, outreach materials, and references



# Lessons Learned





# Lessons Learned

- Full broadband provision in Rural counties is a priority, however there are significant barriers.
- Internet should be considered a public utility.
- Funding is coming, but slowly and rural counties are struggling in the meantime. However, counties need to position themselves in a way to leverage funds when they become available.
- The heavy reliance on internet technologies during the height of COVID-19 and since then has underscored this divide.



# Questions



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