AGENDA ITEM SUMMARY

WORK SESSION DATE: August 9, 2016

AGENDA ITEM TITLE: Broadband Initiative and McClure Pass Update

STAFF RESPONSIBLE: Kara Silbernagel

ISSUE STATEMENT: Share the efforts of Pitkin County's Broadband Initiative and provide a status update on the proposed McClure Pass Communication Site.

BACKGROUND:
Pitkin County is completing Phase II – a conceptual model - of its Broadband Initiative this summer. Phase II focuses on advancing broadband services to the rural areas of the Roaring Fork Watershed (including Gunnison County and Marble). While some of the municipalities have access to services, the region lacks redundancy and many areas just outside of the Highway 82 corridor lack access to any broadband service. Pitkin County has developed a hybrid model that integrates both fiber and fixed wireless technologies to develop an open-access middle-mile network. The goal of this network is to leveraged existing communication sites to provide redundancy outside of the valleys and connect rural drainages to high speed internet.

In addition, although Gunnison County already transitioned much of its public safety to the State Digital Trunked Radio System (DTRS), Pitkin County is just beginning to transition to the state system. In coordination with the State OIT, Pitkin County identified many of its TV/FM Translator sites to develop a DTRS network. As part of this transition, the State also identified a need to develop a site at McClure Pass, reigniting past efforts led by of the State, Gunnison County and Holy Cross Energy. This same site has also been identified as part of the broadband network to provide cellular and broadband service to the Crystal River Valley and Marble area.

LINK TO STRATEGIC PLAN:
Livable & Supportive Community – a sense of personal and community safety

KEY DISCUSSION ITEMS:
- Discuss the two county's broadband efforts
- Identify future discussion topics for continued collaboration of the McClure Pass Communication Site

BUDGETARY IMPACT:
None.

RECOMMENDED BOCC ACTION:
None.

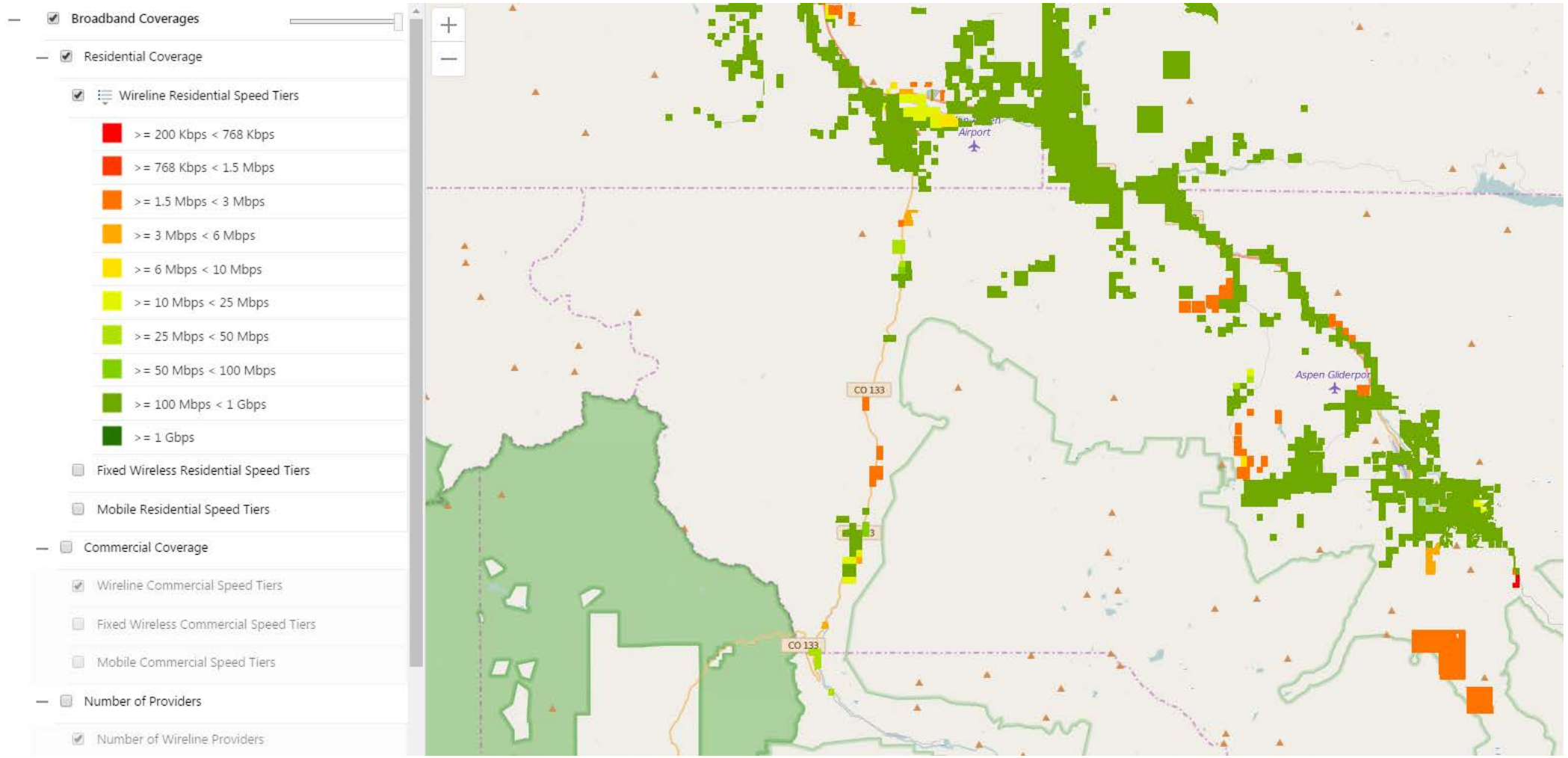
ATTACHMENTS:
Presentation

Broadband Initiative & McClure Pass

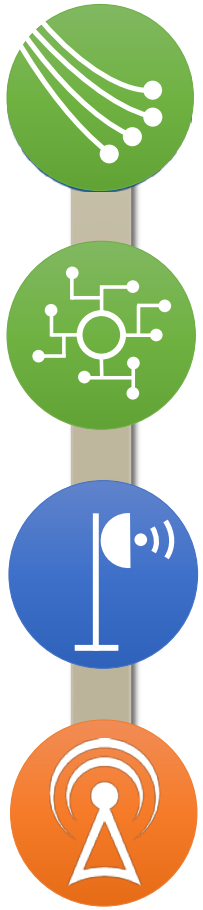
Background

- Transition to State Digital Trunked Radio System (DTRS)
  - Pitkin is one of handful of counties that has not transitioned to the state system
    - Over 80% of counties in the state have transitioned to the state system
  - Aim to have full transition by 2017
- Pitkin County Broadband:
  - No service or inadequate connectivity beyond the Highway 82 corridor
  - Focus on available, abundant and reliable throughout the Roaring Fork Watershed (including Marble)
  - County SB-152 Opt-Out – November 2015

Broadband Today



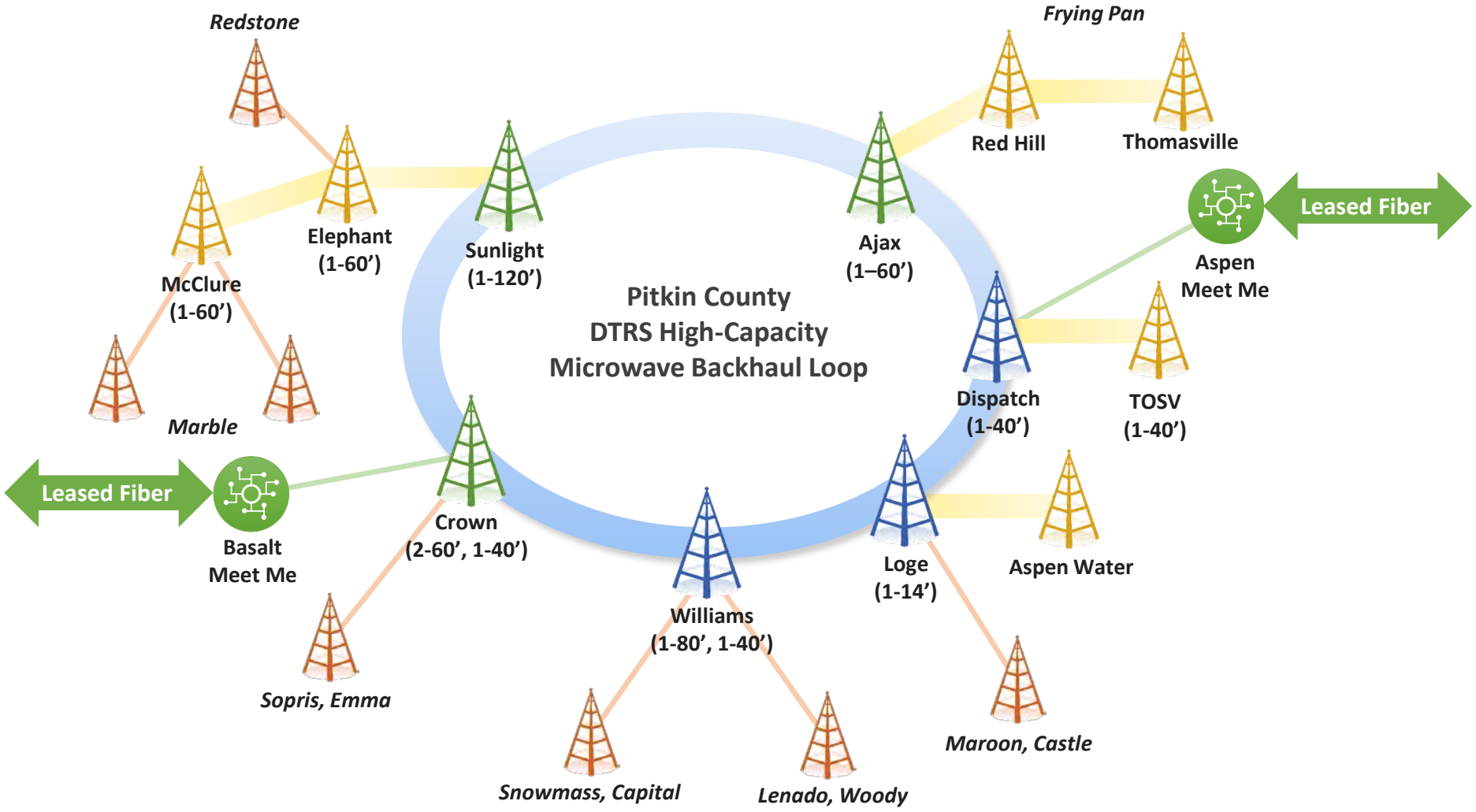
Pitkin County Conceptual Model



Hybrid Fiber and Fixed Wireless Technologies

1. Lease existing (lit) fiber along Hwy 82 corridor
   - Fiber buildout is cost prohibitive
2. Add Meet Me Points (Aspen and Basalt)
   - Aggregate infrastructure to improve the capacity of service available
3. Leverage existing infrastructure
   - Utilize the existing 10 mountain top sites Pitkin County manages for TV/FM translator and public safety radio
4. Add Broadband Access Towers (in unserved / underserved areas)
   - Develop deployment strategy based on stakeholders/partnerships, cost, demand and coverage analysis

Architecture and Design



Infrastructure Upgrades

- Step 1: Develop Microwave Backhaul Loop
  - Supports DTRS / Translator communication today and Broadband communications in the future
  - Connects to fiber meet-me points
  - Upgrades to existing sites (i.e. Elephant)
- Step 2: Develop Stub Connections
  - Develop links for key sites and drainages (i.e. McClure)
- Step 3: Develop Broadband Relay Towers
  - Dependent on private providers

McClure Pass Site Background

- 2008: State of Colorado (as part of DTRS transition) evaluated coverage for McClure Pass area.
- 2010: Coordination between Pitkin & Gunnison counties, State of Colorado OIT, and Holy Cross Energy seeking USFS approval to develop the proposed site.
- 2011: Due to budget constraints and lack of grant availability, the project was shelved.
- 2015: State of Colorado OIT, Pitkin and Gunnison counties and Holy Cross Energy revisit the project. Reaffirm site location and power route.
  - Gunnison County and Holy Cross submit application to USFS
- 2016: USFS requests Trade-off Analysis of preferred site and alternative sites due to concerns related to:
  - Roadless Area
  - Scenic Byway
  - Proposed Wild and Scenic designation
- Fall 2016: Submit Trade-off Analysis to USFS

Proposed McClure Pass Site

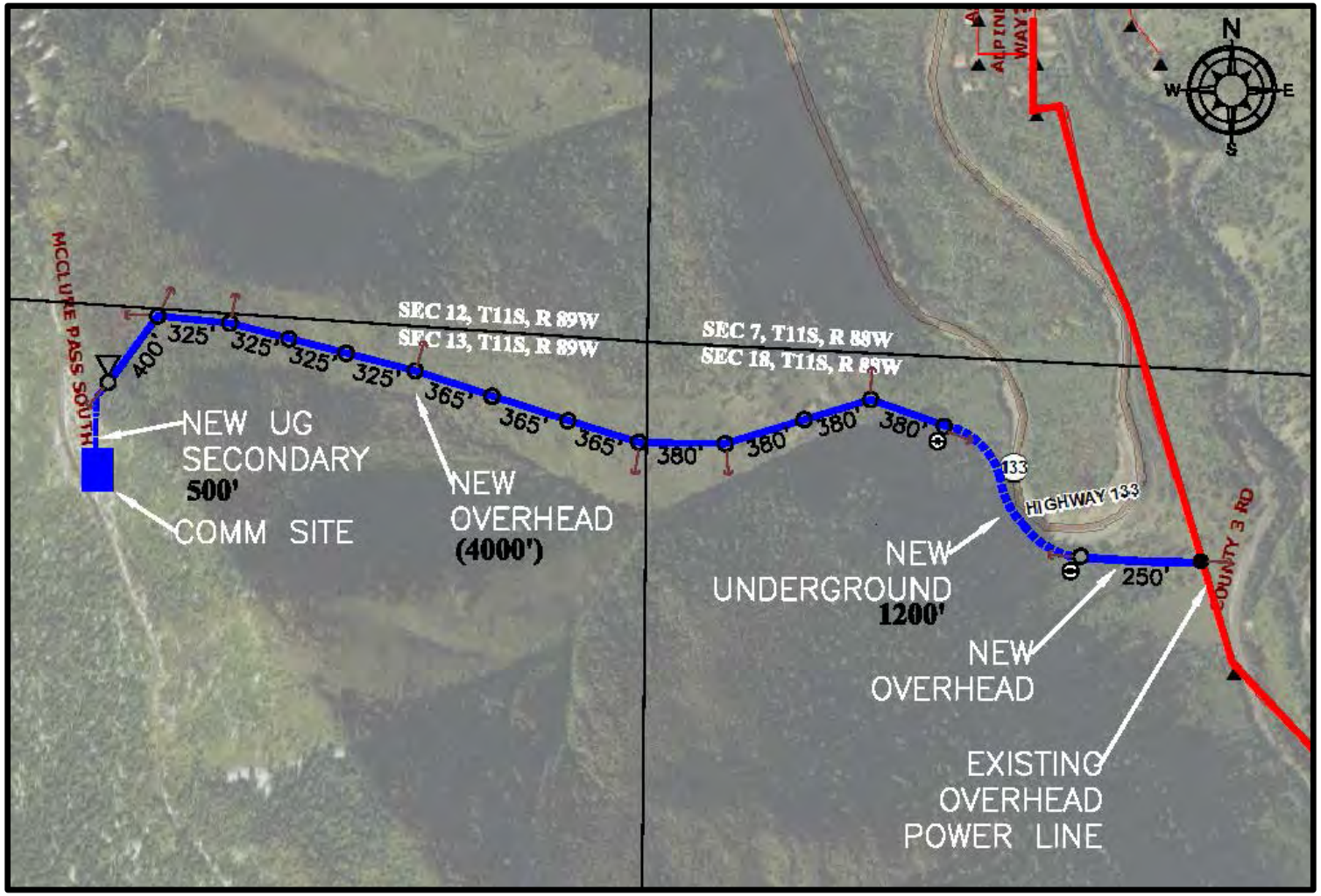
Existing Gunnison Site

Proposed McClure Pass Site

Proposed site

Looking up towards the powerline path

Proposed Power Lines



McClure Next Steps

Future Pitkin/Gunnison discussions

- Site considerations and trade-offs
- Funding resources and availability (local, state and federal)
  - NEPA analysis
  - Site construction