

Developing Broadband in Maine: Needs Assessment

*A Presentation to
The ConnectME Authority*

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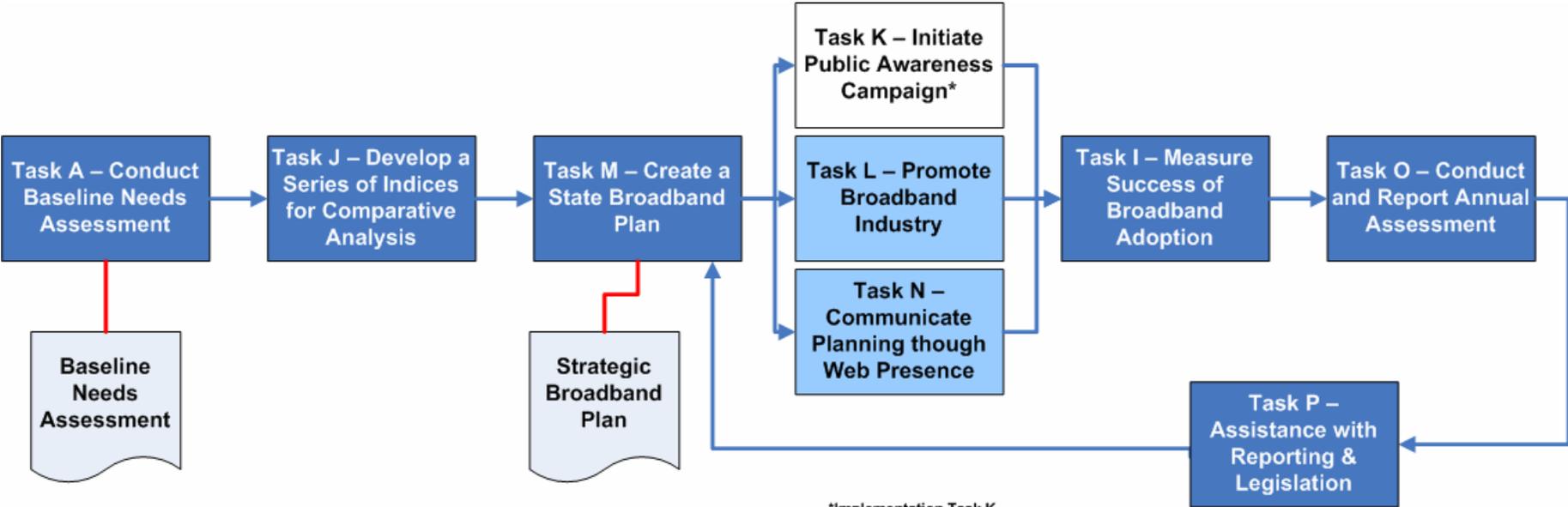
The Assessment Goals

The Needs Assessment is one deliverable in the ConnectME Authority's Broadband Planning Project (2010-2014) for the State of Maine.

- It establishes a baseline of broadband availability & use.
- It identifies the primary barriers to the adoption of broadband technologies.
- It will be used to plan the Authority's strategies for increasing broadband awareness & uptake.
- It will be used to provide the baseline against which implemented strategies can be evaluated.



Planning Project Workflow



The Assessment Team

The Sewall Team

- Dr. James H. Page, Sewall, Project Officer
- Randy Claar, Sewall, Project Manager
- Lisa Schoonmaker, Sewall, Project Coordinator, Editor
- Clarence Young, Sewall, Technical Consultant
- Jeff Letourneau, Technical and Policy Consultant
- Dr. Todd Gabe, Economics Consultant
- Liane Judd, Packard Judd Kaye, Marketing Consultant
- Susan Kaye, Packard Judd Kaye, Marketing Consultant

The ConnectME Authority

- Phillip Lindley, Executive Director
- Lisa Leahy, Associate Executive Director



Data Acquisition

- **Direct Survey of 28 Service Providers**
- **Mailed Surveys**
 - **10,869 Households (26% return)**
 - **3,552 Businesses (17% return)**
- **Direct Survey or Review of 4,496 Community Anchor Institutions**
- **Direct Survey of Maine's Five Tribal Entities**
- **6 Public Forums for Direct Qualitative Input**
- **The ConnectME Mapping & Inventory Project**
- **Other Studies or Databases**
 - **Maine Schools and Libraries (Networkmaine)**
 - **Telemedicine Community (Office of the State Coordinator for HIT)**
 - **Federal and State Agencies**



Defining Broadband

Measuring Availability – Broadband as Transmission Speed

- FCC Tier 1 or higher (minimum 768 Kbps)
- FCC Tier 3 or higher (minimum 3 Mbps)
Authority preference level for project funding

FCC Speed Tier	Upload/Download Speeds	Broadband (Y/N)
1 st Generation Data	200 Kbps to < 768 Kbps	No
Tier 1	768 Kbps to < 1.5 Mbps	Yes
Tier 2	1.5 Mbps to < 3 Mbps	Yes
Tier 3	3 Mbps to < 6 Mbps	Yes
Tier 4	6 Mbps to < 10 Mbps	Yes
Tier 5	10 Mbps to < 25 Mbps	Yes
Tier 6	25 Mbps to 100 Mbps	Yes
Tier 7	> 100 Mbps	Yes



Defining Broadband

Measuring Adoption – Broadband as Technology Type

- DSL
- Cable
- Fixed Wireless
- T-1
- Fiber Optic

Technology	Broadband (Y/N)	Download Speeds
Dial-up	No	Up to 56 Kbps
Mobile	No	56 Kbps – 1.5 Mbps
Satellite	No	200 Kbps – 2 Mbps
Electric power line	No	256 Kbps – 3 Mbps
DSL	Yes	768 Kbps – 6 Mbps
Cable	Yes	1 Mbps – 10 Mbps
Fixed wireless	Yes	1 Mbps – 10 Mbps
T-1	Yes	1.5 Mbps
Fiber optic	Yes	Up to 150 Mbps



Baseline Results

☒ Maine Locations

- 91.9% of Maine street locations currently have access to some form of broadband connection from at least one service provider.
- Maine municipalities are served by an average of 4.3 broadband service providers.

☒ Maine Households

- 89.6% of surveyed households currently have some form of internet connection, although this may not be at broadband levels.
- 72.7% of surveyed Maine households currently subscribe to broadband.

☒ Maine Businesses

- 90.1% of surveyed businesses currently have some form of internet connection, although this may not be at broadband levels.
- 85.7% of surveyed Maine households currently subscribe to broadband.

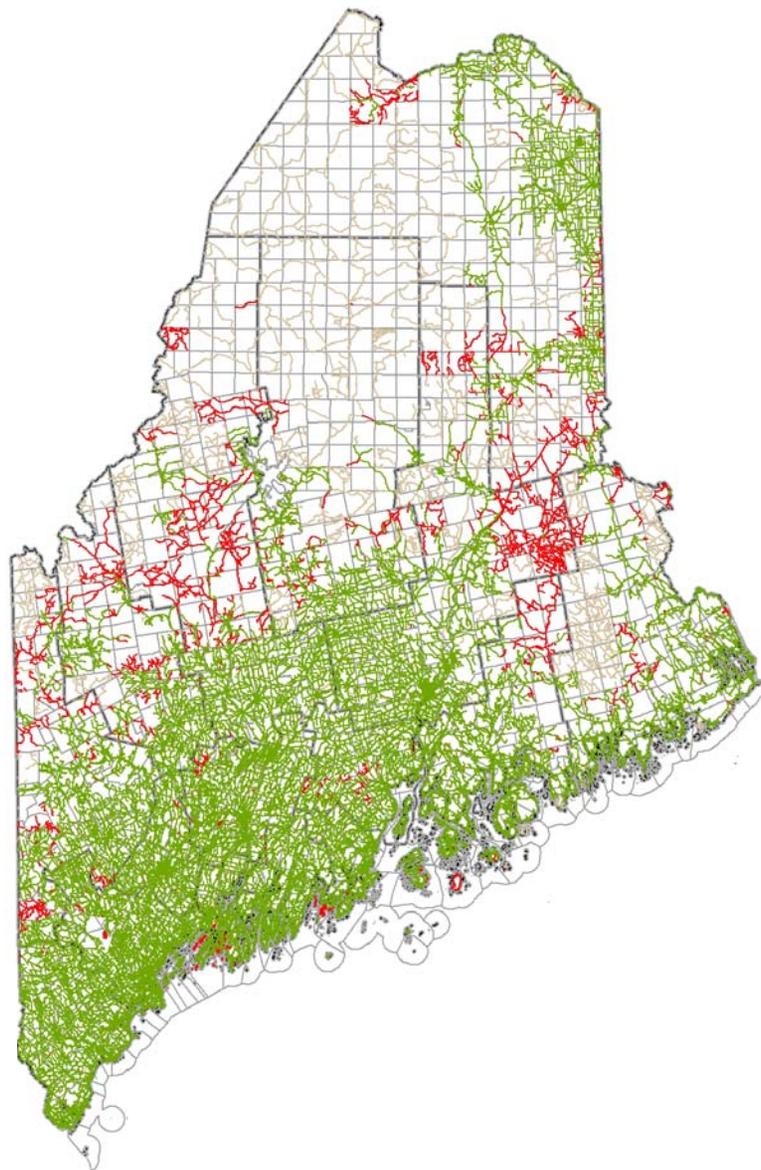


Matching Needs To Service

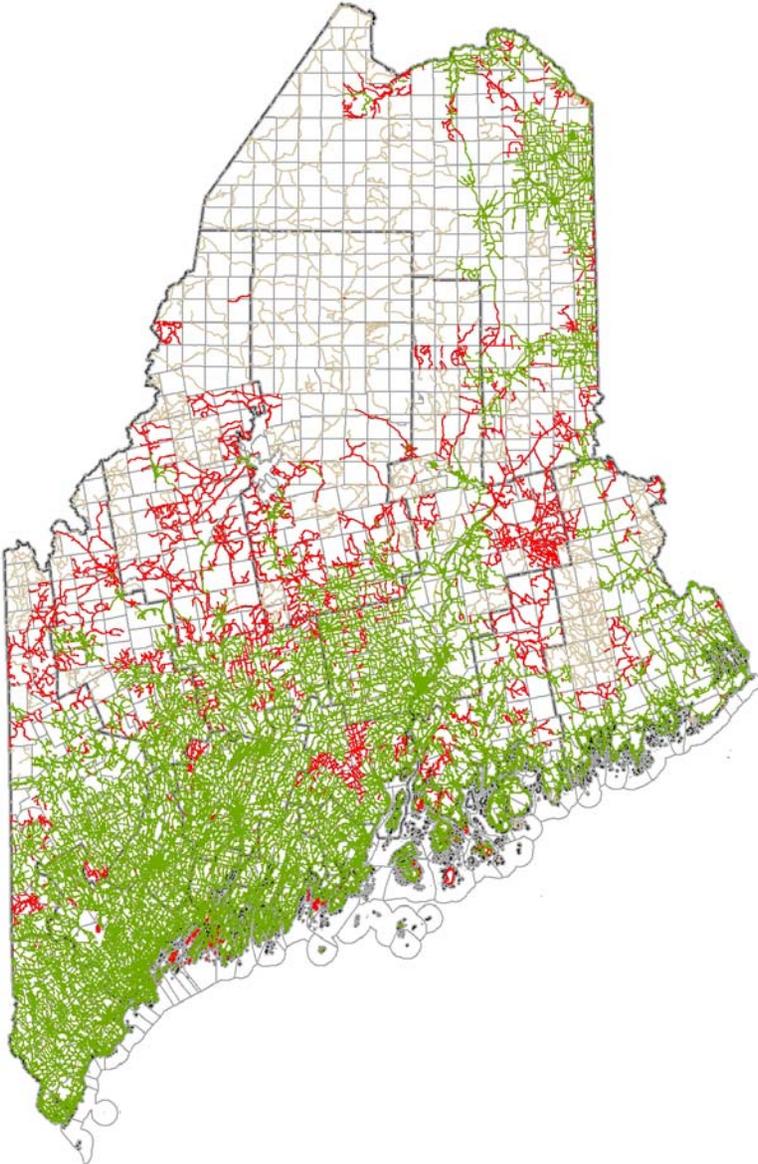
In assessing availability percentages, it is critical to match consumer needs with the required level of broadband service.



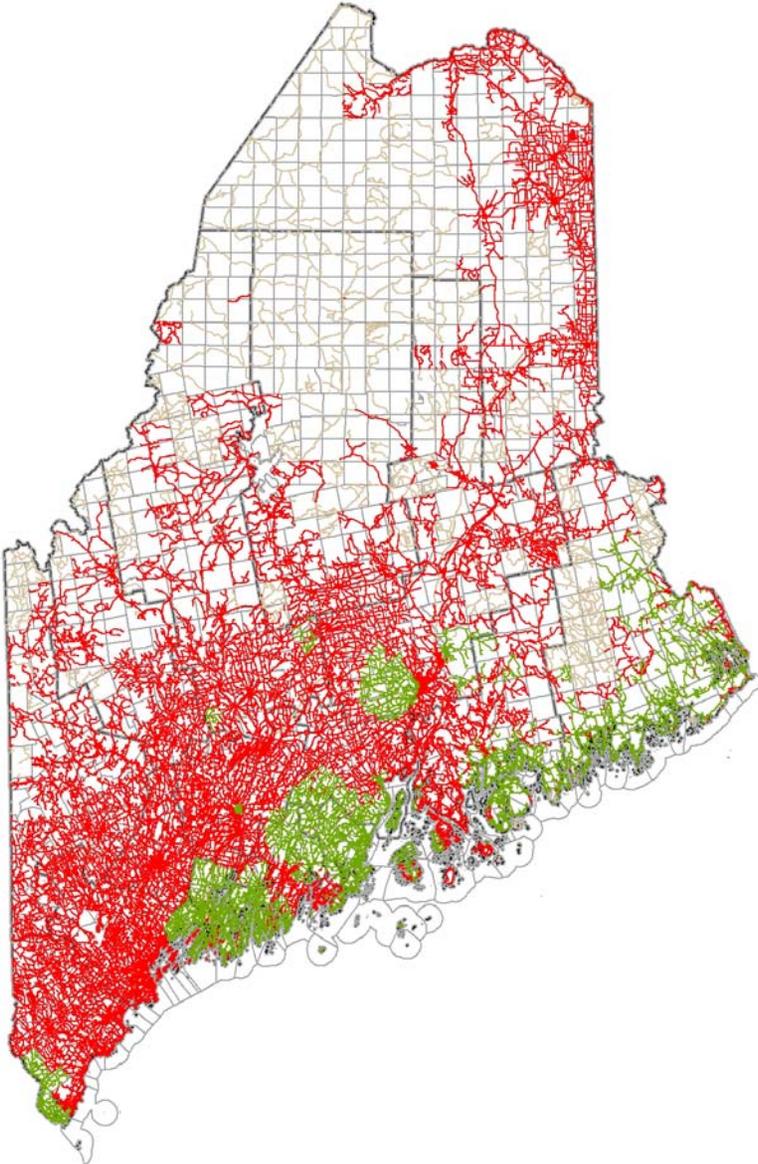
FCC First Generation Data Coverage



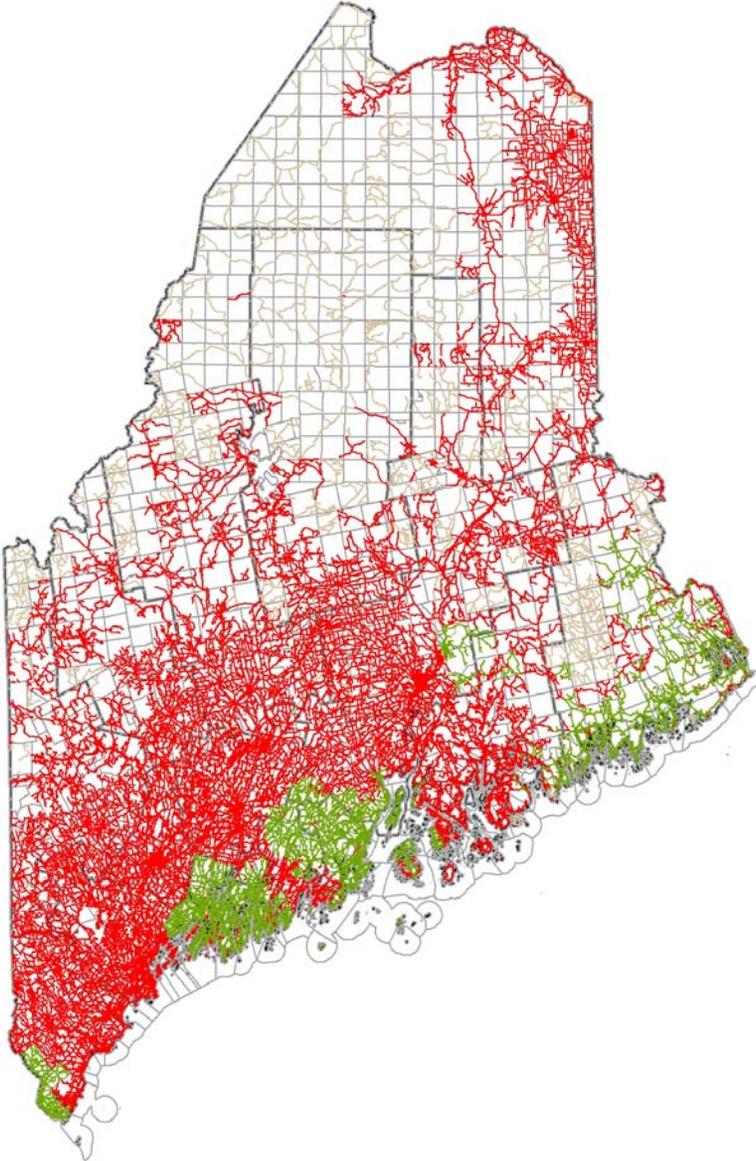
FCC Tier 1 Coverage



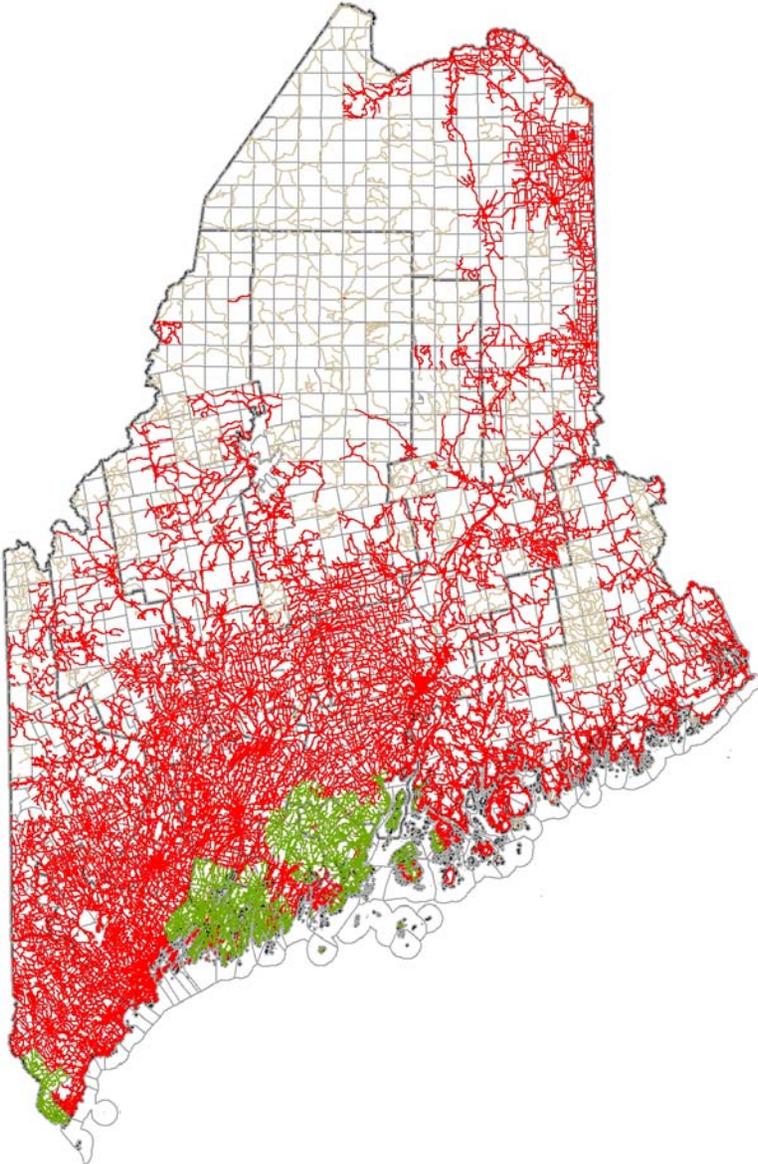
FCC Tier 2 Coverage



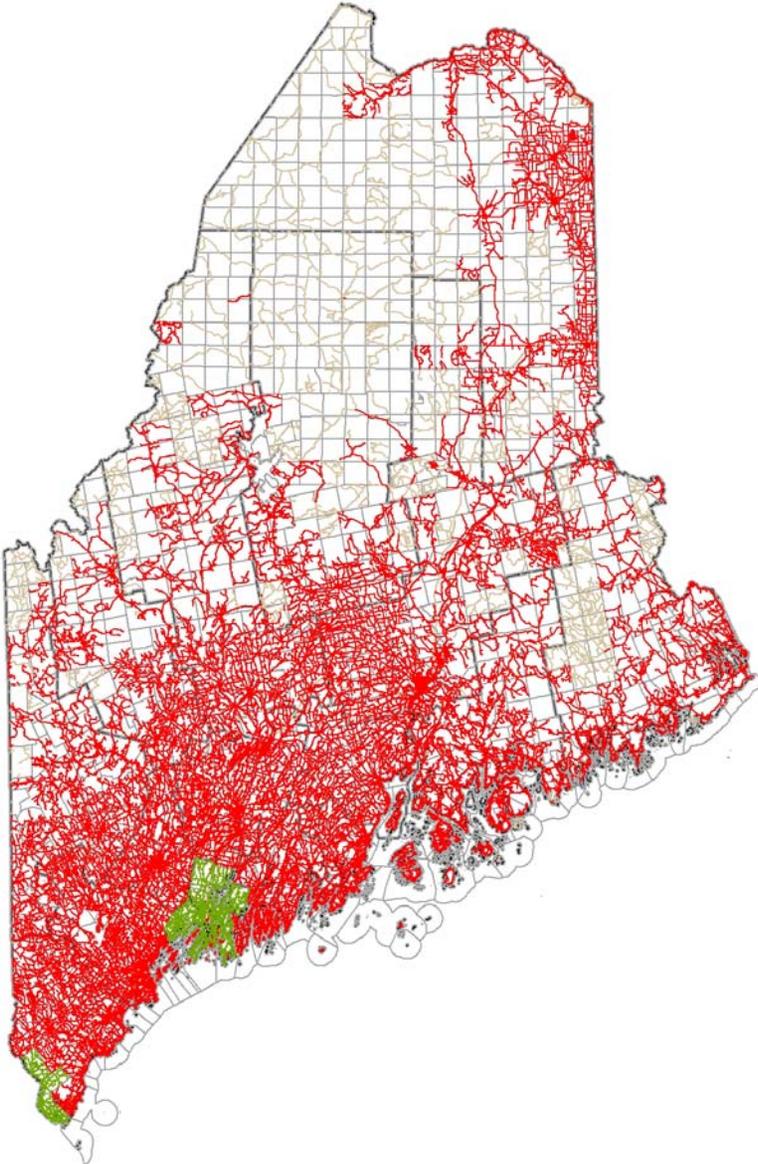
FCC Tier 3 Coverage



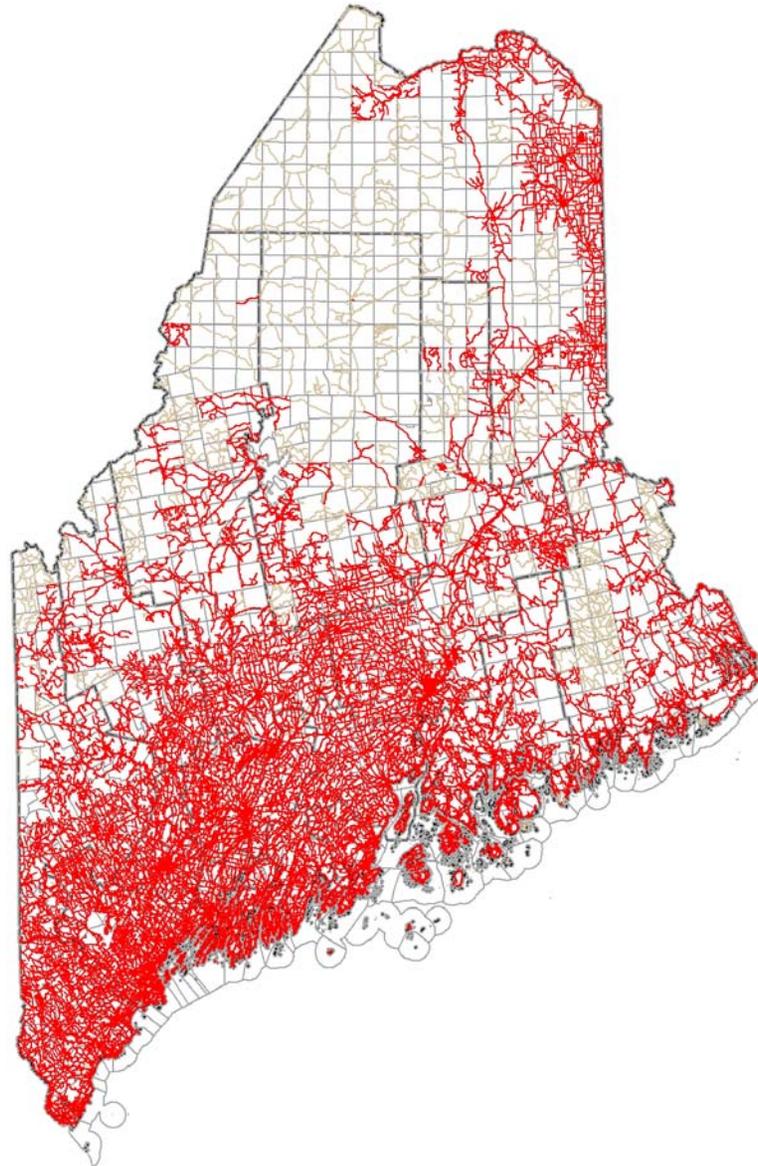
FCC Tier 4 Coverage



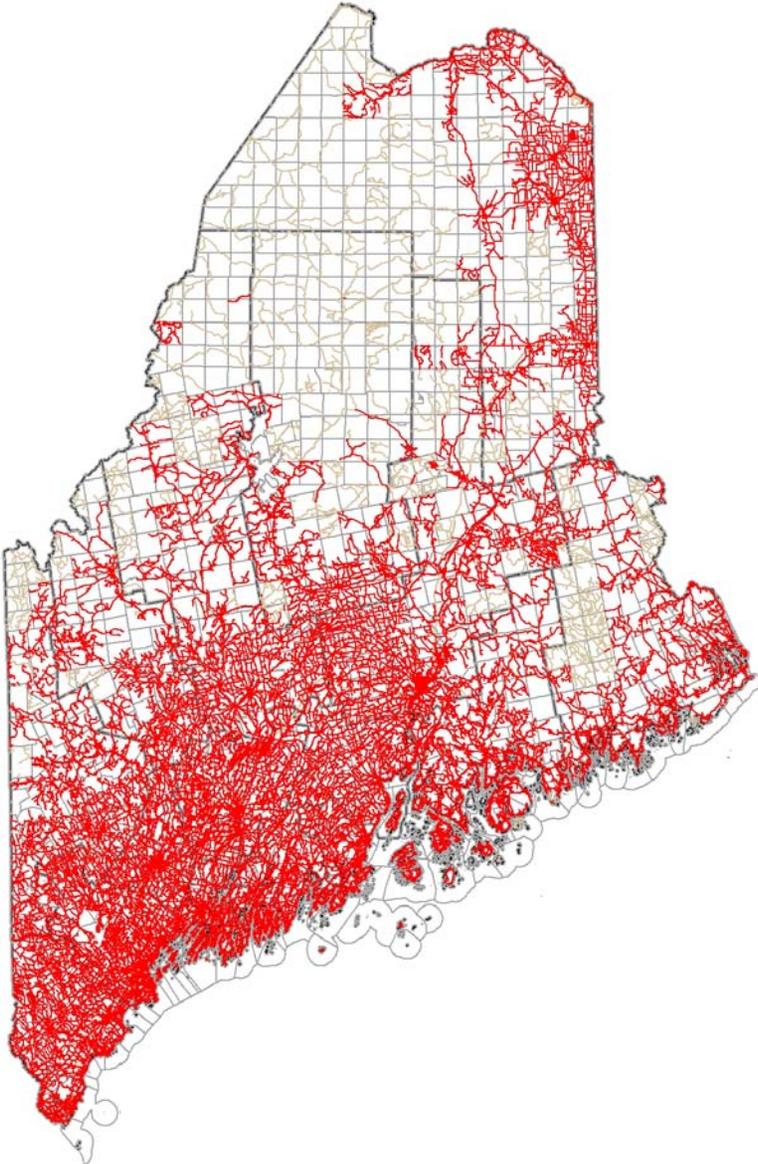
FCC Tier 5 Coverage



FCC Tier 6 Coverage



FCC Tier 7 Coverage



Consumer Identified Barriers to Broadband Adoption

➤ For Maine households

- lack of perceived need or value in owning a computer (44.7%)
- cost (21.3%)

➤ For Maine businesses

- lack of perceived need or value (39.1%)
- cost (28.3%)



Demographic Factors Driving Broadband Adoption

▣ Factors concomitant with increased broadband adoption

- Households with one or more children under 18 (Maine is 48th out of 50)
- Households with more than 3 people (Maine is 48th out of 50)
- Small businesses in finance & insurance sectors (Maine is 48th out of 50)

▣ Factors concomitant with decreased broadband adoption

- Households with annual income under \$15,000 (Maine is 18th out of 50)
- Households comprised of people over age 64 (Maine is 5th out of 50)
- Small businesses with fewer than 5 employees (Maine is 9th out of 50)

Maine is on the wrong side of both factor sets!



Common Themes

- There is an increasing general need & demand for higher levels of broadband service driven by social, economic, & technological factors.
- While Maine has good coverage for basic broadband service, current service levels are too low to realize most advantages broadband will offer.
- There is a lack of perceived value in computer use & internet adoption.
- Maine's demographics and geography present a challenge to broadband advancement.



Next Steps: Developing the Strategic Plan

We recommend:

- ❑ The Authority consider expanding its focus from unserved residential consumers to include businesses, agencies, & community anchor institutions in order to coordinate better planning and growth.
- ❑ The Authority lead a sustained marketing campaign that builds awareness on the benefits of broadband adoption & that focuses on groups with low adoption rates.
- ❑ The Authority work more closely with service providers to build incentives that increase awareness & adoption.
- ❑ The Authority work with State government to encourage regulatory reform more attuned to current technologies & business requirements.

