

Broadband Mapping Initiative Overview

for the

State of Connecticut Broadband Internet Coordinating Council

Applied Geographics, Inc.

September 13, 2010

(DOIT Project ID: 1001327)



Background

- NTIA awarded CT \$1.8M
 - \$1.3M to collect information on availability and broadband service in CT.
 - \$500k for mapping and Statewide planning activities.
- Through Executive Order 32, CT Department of Public Utility Control assigned the lead agency on the broadband mapping project.
- Contracted with Applied Geographics INC (AppGeo) to assist with data collection, GIS processing, and to develop the related web applications.

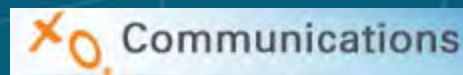
Data Collection

- This program involves collecting data from:
 - **Broadband Providers**
 - Private
 - Public, and
 - Public/private partnerships
 - **Community Anchor Institutions**
 - Schools
 - Libraries
 - Medical and Health Care Providers
 - Public Safety
 - Universities/Colleges/Higher Education
 - Governmental Community Support
 - Non-governmental Community Support
 - **Consumers** of broadband service

Data Needed from Service Providers

- Data broadband providers are requested to provide:
 - Service Availability: Information where they provide service today or could offer service in 7 to 10 business days
 - For census blocks less than 2 sq miles – at census block level
 - For census blocks greater than 2 sq miles – at street segment level
 - For wireless providers, a boundary of their service area
 - Middle Mile/Backbone Interconnection Points
 - Technology of Transmission (e.g. DSL, copper wire, cable modem, fiber, satellite, wireless, other)
 - Upstream and Downstream Speed – both advertised and typical

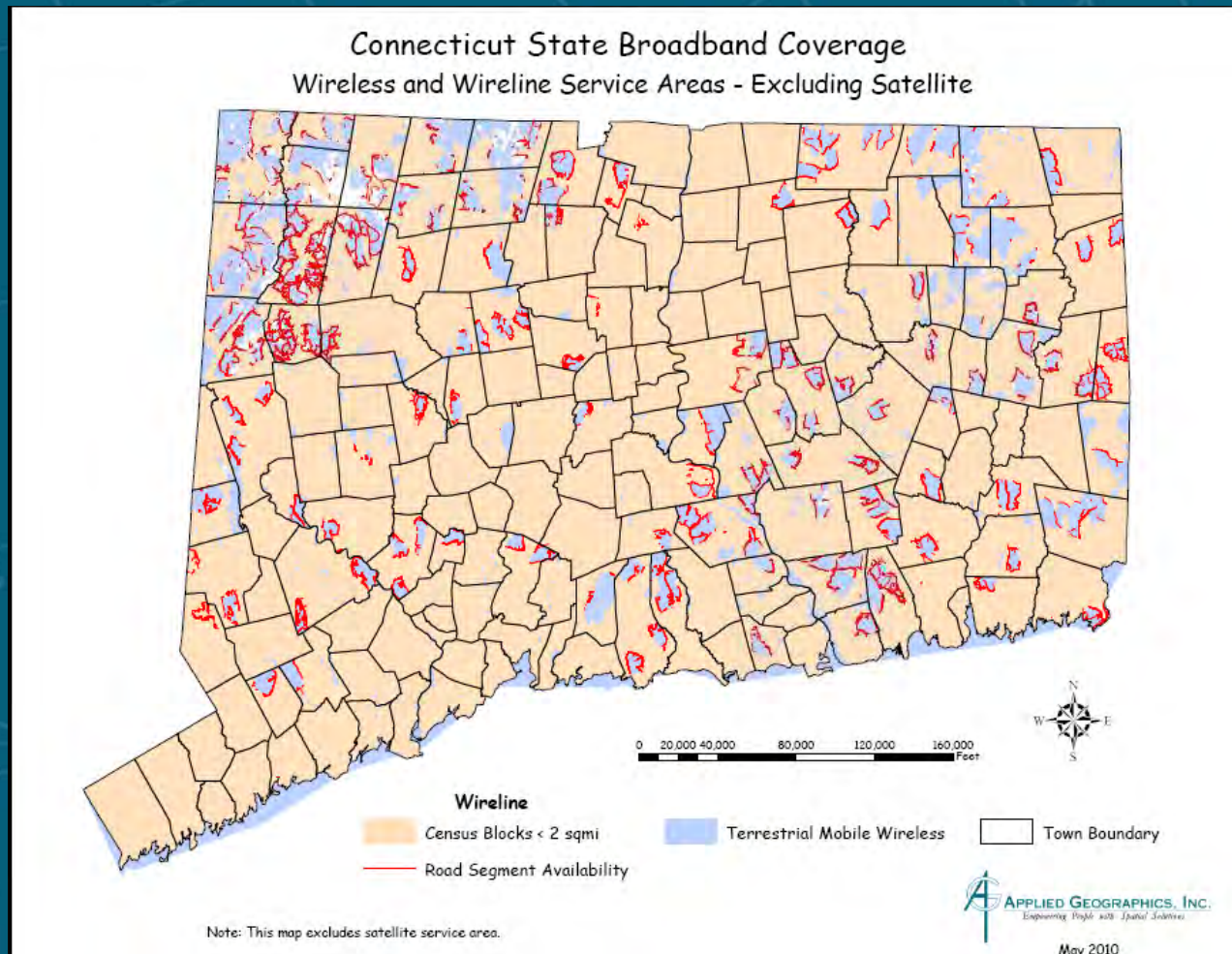
Participating Providers



Data Processing

- Much of this data is considered **proprietary** and **confidential** by the actual service providers.
- Start process by signing **Non-Disclosure-Agreements** with the provider
- Processed into a **standardized** format
- Aggregated to **non-confidential** format
- Ultimately delivered to **NTIA**
- Process repeated **twice a year**

Data Processing



The first round was processed and submitted to the state and NTIA in May 2010

Preliminary Findings

- Due to its size and various regulations, CT only has:
 - Two actual ILEC providers
 - Three mobile wireless providers
 - Six cable TV based providers
- Provider service boundaries are much more defined than in other parts of the country
- Due to the states small geographic size, over **95% of the state is covered** by wire line or terrestrial wireless service (meeting NTIA definition)

Current Activities

- Round 2 (status as of June 30, 2010) has been **collected**, and **processed**
- Providers have an opportunity to **review** their data in a secure web-based application
- More **rigorous validation** is being done
- Round 2 data will be **delivered** to the state and NTIA by **October 1st**

Web Site Overview

- Purpose: Provide bidirectional flow of information between State of Connecticut and consumers/providers of broadband technology
- Web Portal will consist of six integrated components:
 1. Informational Portal
 2. Community Anchor Institution Application
 3. Speed Test Application
 4. On-line Surveys
 5. Interactive Mapping Portal
 6. Provider Portal

Information Portal

<http://ct.gov/broadband>

- Entrance point to mapping portal
- Project/Program Overview
- Program Status Updates
- PDF's of Map Products
- Contact Information
- Launch point to other apps



Community Anchor Institution Application

- Secure Site
- Find your facility
- Provide technical information
(provider(s), speed, technology, etc)
- Improve accuracy of location
- Add new or missing facility
- Perform a speed test from that location

Community Anchor Institution Application

[Home](#)
[About Us](#)
[Press Release](#)
[Contact Us](#)

[Interactive Mapping](#)
[Maps](#)
[Providers](#)
[Community Anchor Institutions](#)
[Other Links](#)

Community Anchor Institutions

[Logout](#)

Please answer the following questions to the best of your knowledge.

What Category best describes the Institution?

Public Safety

Please choose the city the Institution is in?

Coventry

Please Select the Institution from the list

If you do not see your institution on the list, please select 'Other'.

Other
COVENTRY POLICE DEPARTMENT
COVENTRY VOLUNTEER FIRE ASSOCIATION INCORPORATE
COVENTRY VOLUNTEER FIRE ASSOCIATION INCORPORATE
NORTH COVENTRY FIRE DEPARTMENT INCORPORATED ST.
NORTH COVENTRY FIRE DEPARTMENT INCORPORATED ST.

- Provide broadband services directly to End-users?
- Own any broadband infrastructure (last-mile connection points or middle-mile or backbone interconnection points)?

If so, please be aware that you are also required to submit information as a broadband provider.

Please [Contact Us](#) for more information.

Community Anchor Institution Application

If you do not see your institution on the list, please select 'Other'.


COVENTRY POLICE DEPARTMENT

Location Address of Institution (no P.O.Box):
1585 MAIN STREET

City: COVENTRY Zip: 06238

Update Address on Map Base Map Satellite

Mapped Location: (Please be patient while map loads.)



If needed, use this tool to place the address point in the correct location on the map.

Does the Institution subscribe to broadband service at this location?
Yes ☒ No ☐

Who is your broadband provider?

What type of technology is used for your institution's broadband transmission?

Local intranet

Speed Test

- Collect data on actual speeds at end-user location
 - Collect data in multiple places:
 - Community Anchor Institutions
 - As part of survey
 - As stand alone data
 - Collect speed, provider, technology, time of day
- Provide validation of service being provided
- Provide useful feedback statistics about speed of connection

Speed Test

Broadband Mapping Program

[Home](#)
[About Us](#)
[Press Release](#)
[Contact Us](#)

[Interactive Mapping](#)
[Maps](#)
[Providers](#)
[Community Anchor Institutions](#)

SPEED TEST

Please Enter The Following Information:

Are You At... ☒ Work ☐ Home ☐ Other

Street Address

City

Zip (5-digit)

Internet Provider


How fast do you *think* your connection is?

☐ By checking this box you are verifying that you are physically at the location you above as you take this test. It is critical to the success of this project that the speed test results we collect are associated with the correct geographic location.

Copyright© 2010 AppGeo

SPEED TEST

Please verify your location on the map below.
The map might take a moment to appear.




If needed, use this tool to place the address point in the correct location on the map.

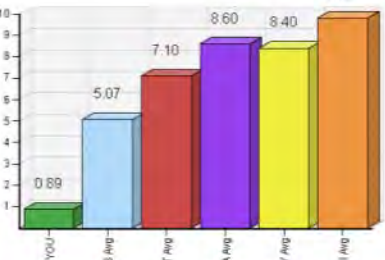
You Enter:
You are at:
Street Address
City:
Zip Code:

Click the red "Begin Test" button

Speed Test



Speed Test Complete




Location	Avg Speed (Mbps)
YOU	0.89
US Avg	5.07
CT Avg	7.10
MA Avg	8.60
NY Avg	8.40
RI Avg	9.80

Your speed: 0.89 Mbps

- US Avg: 5.07 Mbps
- CT Avg: 7.1 Mbps
- MA Avg: 8.6 Mbps
- NY Avg: 8.4 Mbps
- RI Avg: 9.8 Mbps

Survey

 **Broadband Mapping Program**

Home About Us Press Release Contact Us

Interactive Mapping Maps Providers Community Anchor Institutions Other Links

PUBLIC SURVEY

[Skip The Survey](#)

Are these the results you expected?

- ☐ 1 - A lot worse than expected
- ☐ 2 - Worse than expected
- ☐ 3 - As Expected
- ☐ 4 - Better than expected
- ☐ 5 - A lot better than expected

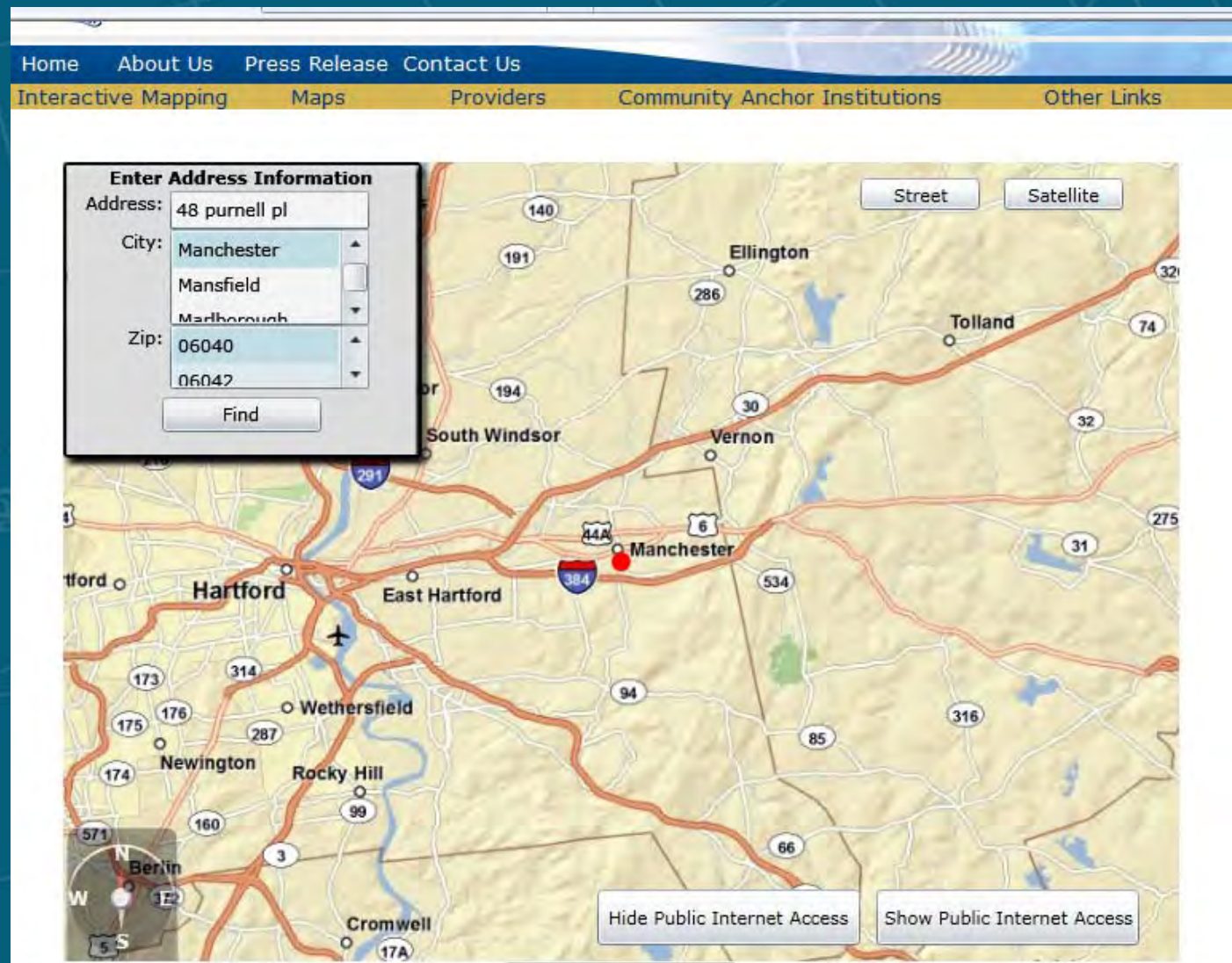
Do the speed test results you just received meet your needs?

- ☐ 1 - A lot slower than required
- ☐ 2 - Slower than required
- ☐ 3 - Adequate
- ☐ 4 - Faster than required
- ☐ 5 - A lot faster than required

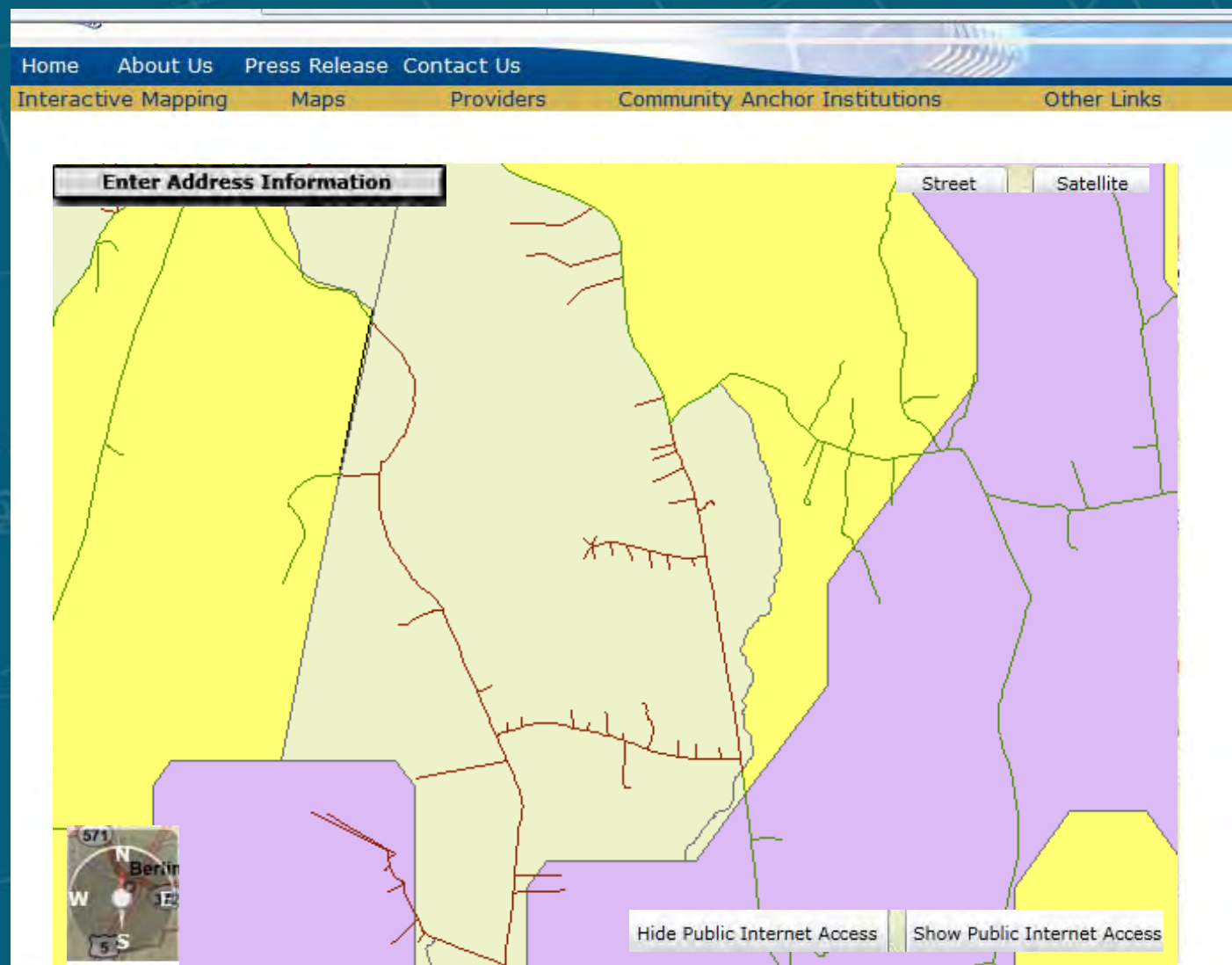
Public Mapping Portal

- Use by general public and CT businesses
 - Locate yourself in Connecticut
 - Who provides service in your area?
 - Who provides service around your area?
- Potential Providers
 - Service and adoption statistics
 - Service and adoption analysis
- State of Connecticut
 - Adoption rate by geographic unit
 - Statistics and analysis

Public Mapping Portal



Public Mapping Portal



Public Mapping Portal

Washington State Broadband - Mapping

State of Washington Broadband - Internet Explorer powered by Ge

http://beta.appgeo.com/washingtonbroadband/interactivemap.aspx

File Edit View Favorites Tools Help

State of Washington Broadband

georgia.gov

STATE OF GEORGIA BROADBAND MAP

Public Broadband Survey Speed Test Community Information

Georgia Broadband Mapping Project

The State of Georgia is undertaking a massive effort to collect and process its broadband availability across the state (please see [BROADBAND JOURNAL](#) for more details). The ultimate goal of this project is to build a statewide broadband map and use it to determine where to focus additional broadband investment and where it is not, as an integral part of determining where to focus additional stimulus funding.

Through this project, the State of Georgia will not only create fundamental data, but also create an interactive method for displaying and using this data, as required by the National Telecommunications and Information Administration (NTIA) State Broadband Development Grant program. But the State will also make investments in state Geographical Information System (GIS) data. This will ensure that the State is planning for the future of broadband in the State and at the same time saving functions for other operational areas and agencies of the State.

Latest Broadband News

Thu Aug 26 19:59:09
Georgia will receive \$18 ml in economic stimulus funds for broadband projects as part of a \$1.6 bl package announced by the Vice President

Sun Aug 22 20:44:37
For the first time since 2001, Georgia Tech has debuted higher than Georgia in the Associated Press Top 25 college football preseason poll

Fri Aug 13 15:07:48
I am populating this service with data that will be consumed by my application

Fri Aug 13 15:07:27
Georgia Broadband Authority is launching a new website at <http://beta.appgeo.com/georgiabroadband>

OKLAHOMA
www.ok.gov

Broadband Mapping

Broadband Home Mapping Home Broadband Use Survey Test Your Speed CAT Survey Broadband Providers

Search Site

Home / Broadband Home / Mapping Home / Interactive Map

Speed Test Results Community Information

Basemap

Terrain

Broadband Map

Broadband Availability Legend

Wireline Technology
Wireless Technology

Available Providers

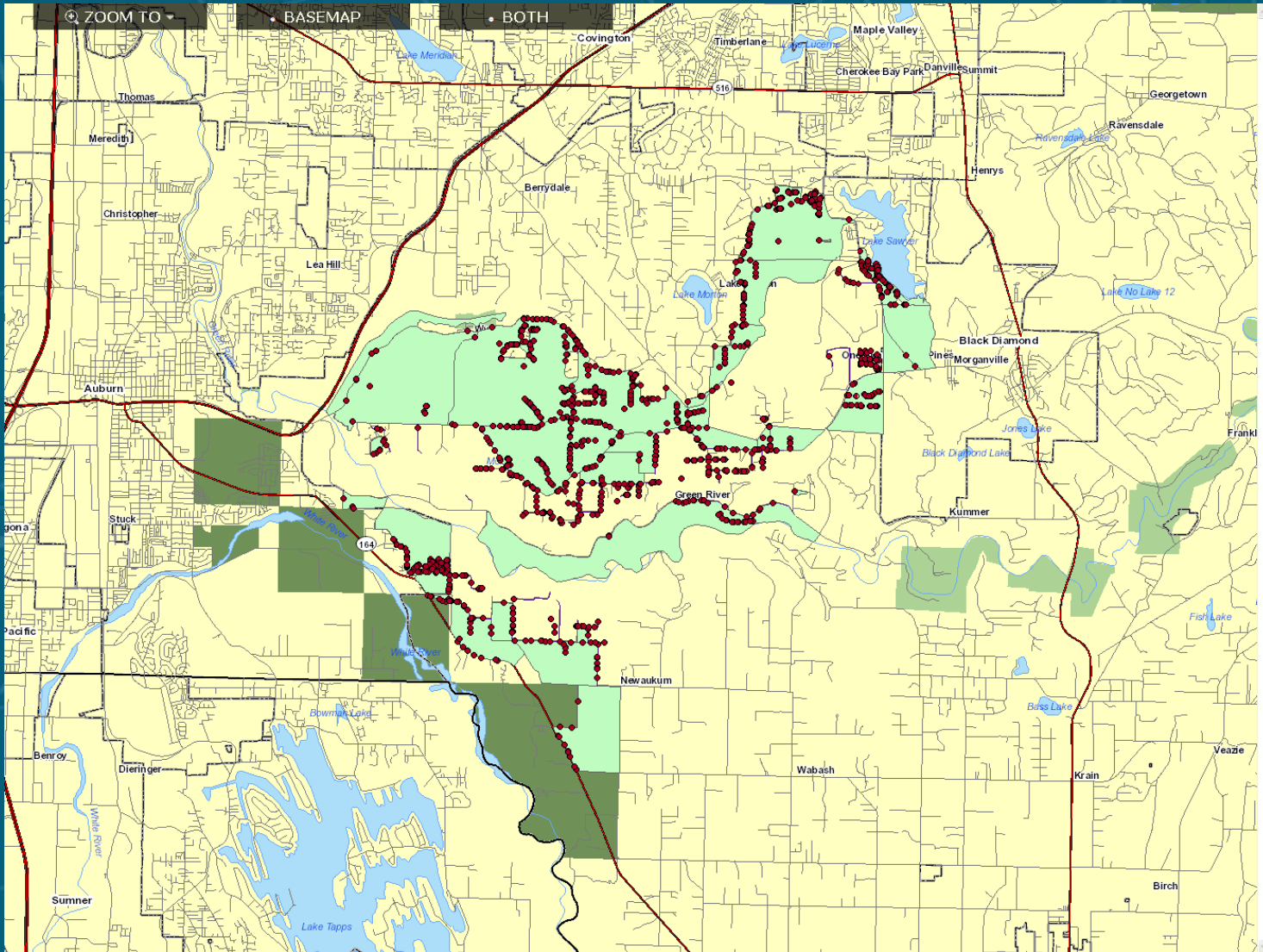
Near the pointer

Copyright © 2010 State of Oklahoma
Accessibility Help Desk Policies About Oklahoma's Web Portal Feedback

Provider Internal Verification

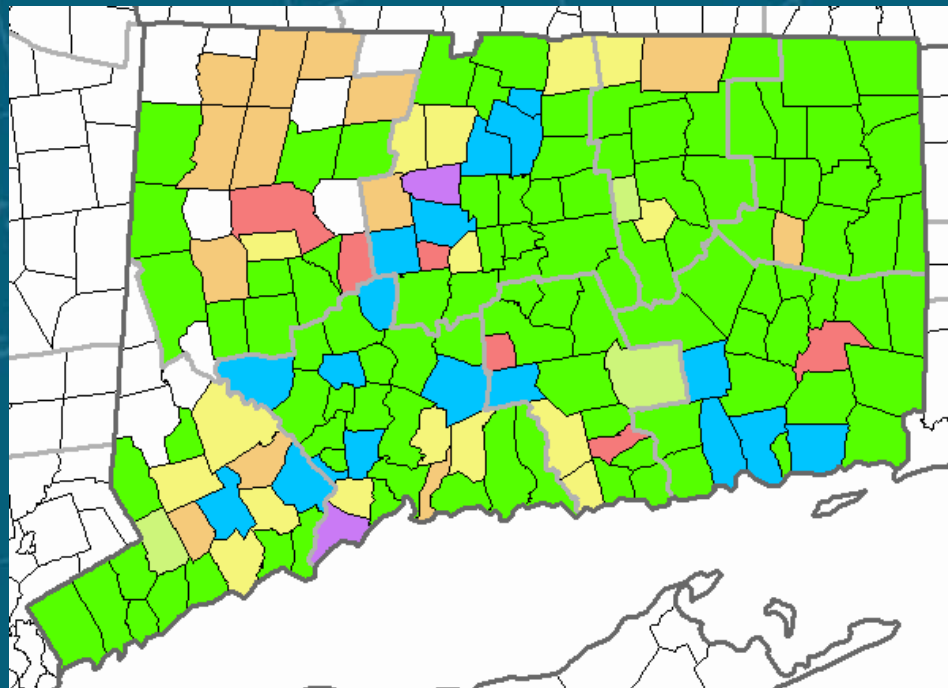
- **Secure site** for submission/verification of data
 - Provider Review and Verification
 - **View raw** submission data (points)
 - **Compare** to **processed** data (blocks & segments)
 - Review **service area** versus **adoption area**
 - Review **technology of transmission**
 - Review **upstream** and **downstream** speed
 - **Toggle** blocks/street segments, served or not served
 - Redline and markup, complete missing details

Provider Portal



Parcel Consolidation and Standardization

- Collect Existing Parcels
- Standardize Parcels to Draft State Standard
- No edgematching, updating, spatial adjustment or creation



We currently have 102 of the 169 towns

Questions

Steve Anderson, GISP

AppGeo Broadband Program Manager

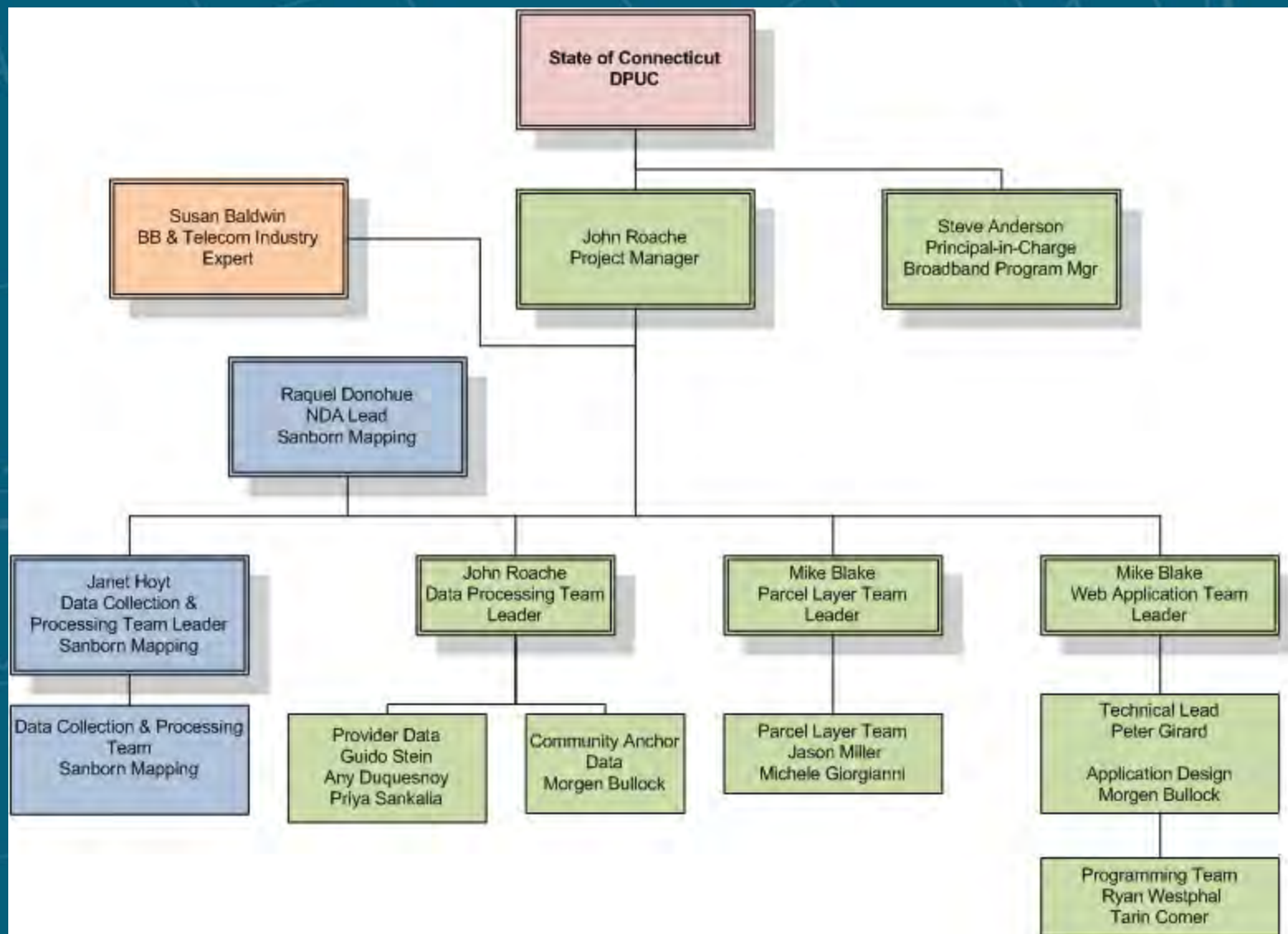
sanderson@appgeo.com (860) 643-4401 x 302

John Roache, PMP, MCITP

AppGeo CT Broadband Senior Project Manager

jroache@appgeo.com (860) 643-4401 x 305

Introductions & Organizational Chart



Project Approach

NTIA State Broadband Data and Development Grant Program Requirements and Deliverables

