



“Orphaned Neighborhoods & Non-CUD Towns”

House Energy and Technology

March 25, 2022

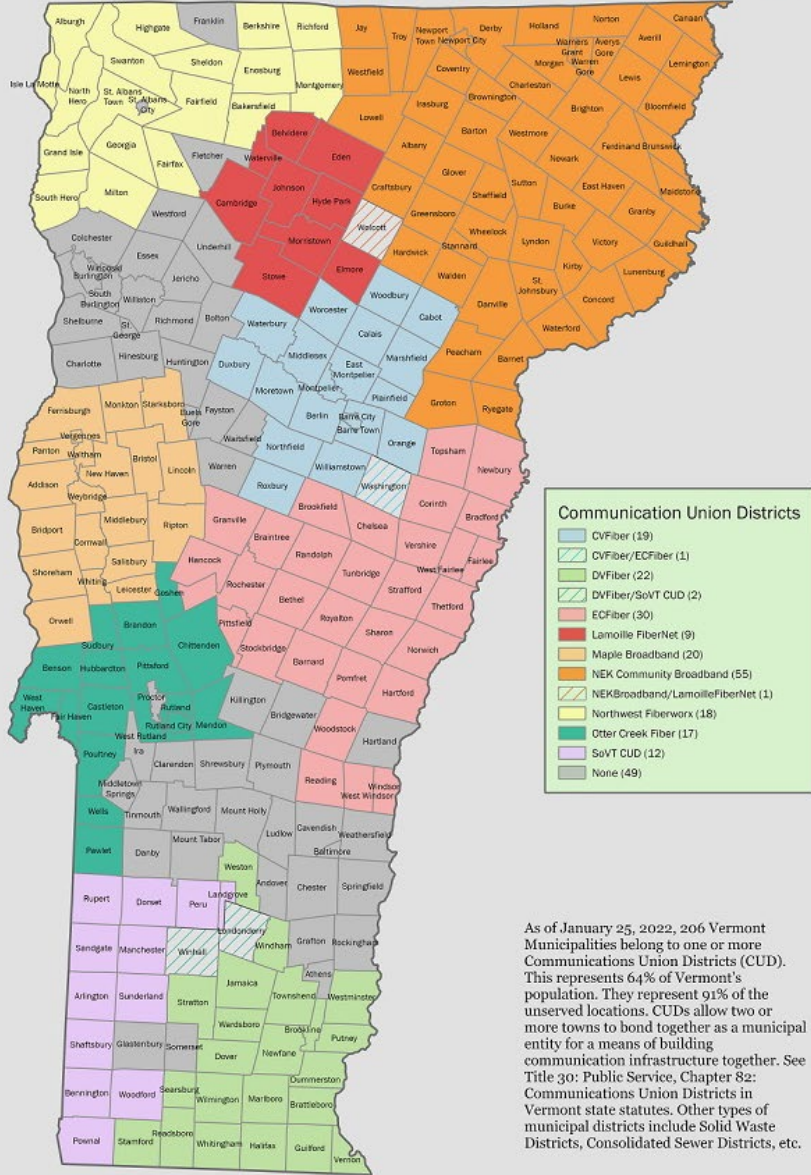
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As of January 25, 2022, 206 Vermont Municipalities belong to one or more Communications Union Districts (CUD). This represents 64% of Vermont's population. They represent 91% of the unserved locations. CUDs allow two or more towns to bond together as a municipal entity for a means of building communication infrastructure together. See Title 30: Public Service, Chapter 82: Communications Union Districts in Vermont state statutes. Other types of municipal districts include Solid Waste Districts, Consolidated Sewer Districts, etc.

Towns Not Members of Communications Union Districts (CUDs)

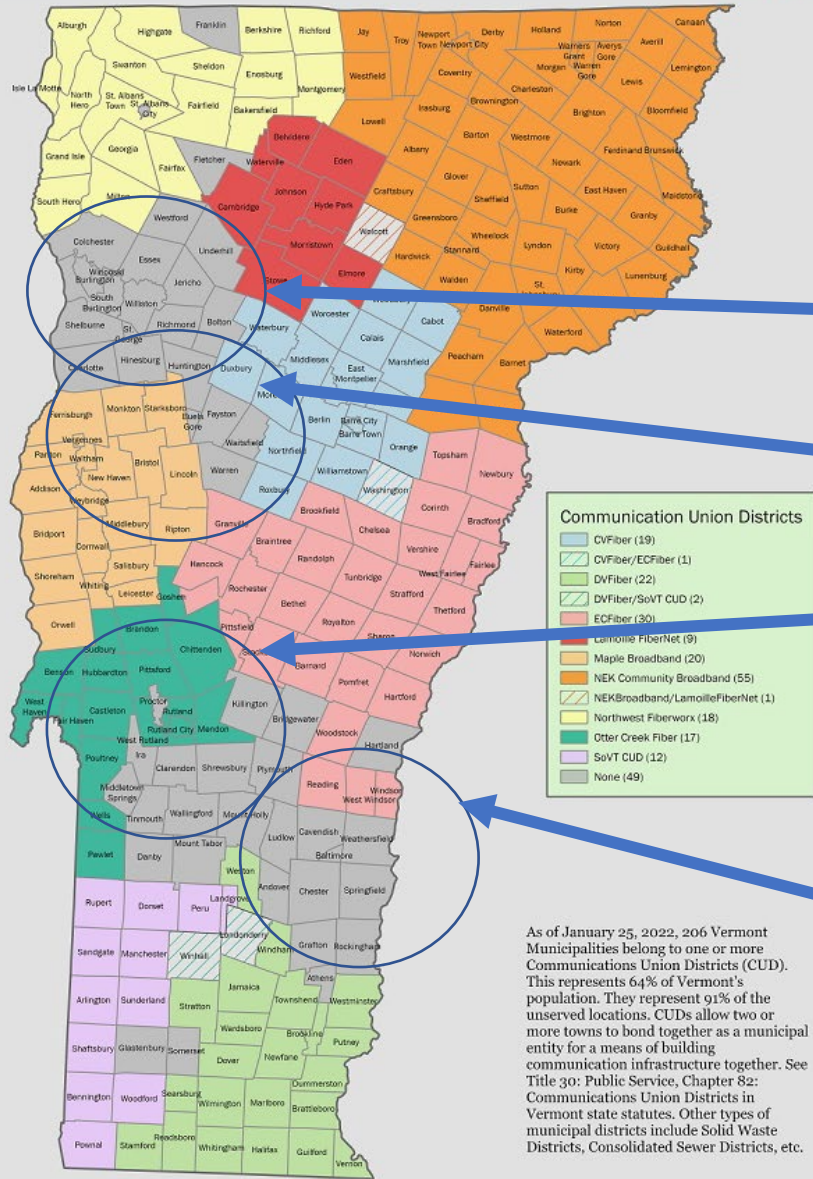
ELIGIBLE ADDRESSES FOR THE CONSTRUCTION GRANT PROGRAM "No wireline connections of at least 25/3"

- 64,053 total address eligible for the program
- 5598 addresses are in Non-CUD Towns (8.7% of the addresses)
- Eligible for 8.54% of the funding based on our underserved road mile analysis
- Expectation for CUDs is to fund ~60% via grants and the CUDs will revenue bond for the rest. Same for non-CUD towns
- Expected Total Construction Funding - \$116M + \$95M + \$100M Infrastructure Bill = \$311M (Still Not Enough)
- \$26.56M in Grants + \$17.70M elsewhere = \$44.27M Total

Note: This is all Non-CUD towns; not just the "orphans"

Note: CUDs are receiving additional "Pre-Construction" Support

Towns Not Members of Communications Union Districts (CUDs)



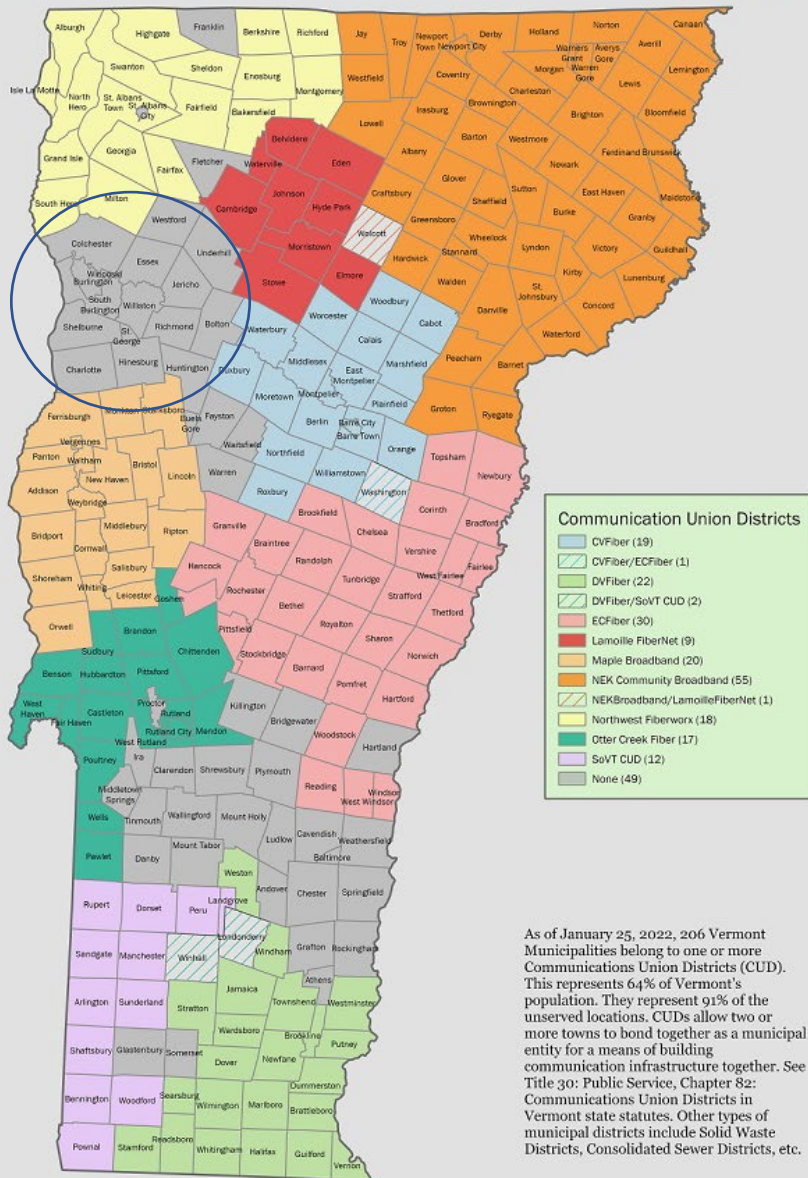
“Orphan Towns”

WCVT continuing to fiber build in their territory

Otter Creek CUD in conjunction with SoVT are looking to pick up these towns partly served by VTel, but with underserved Consolidated Addresses

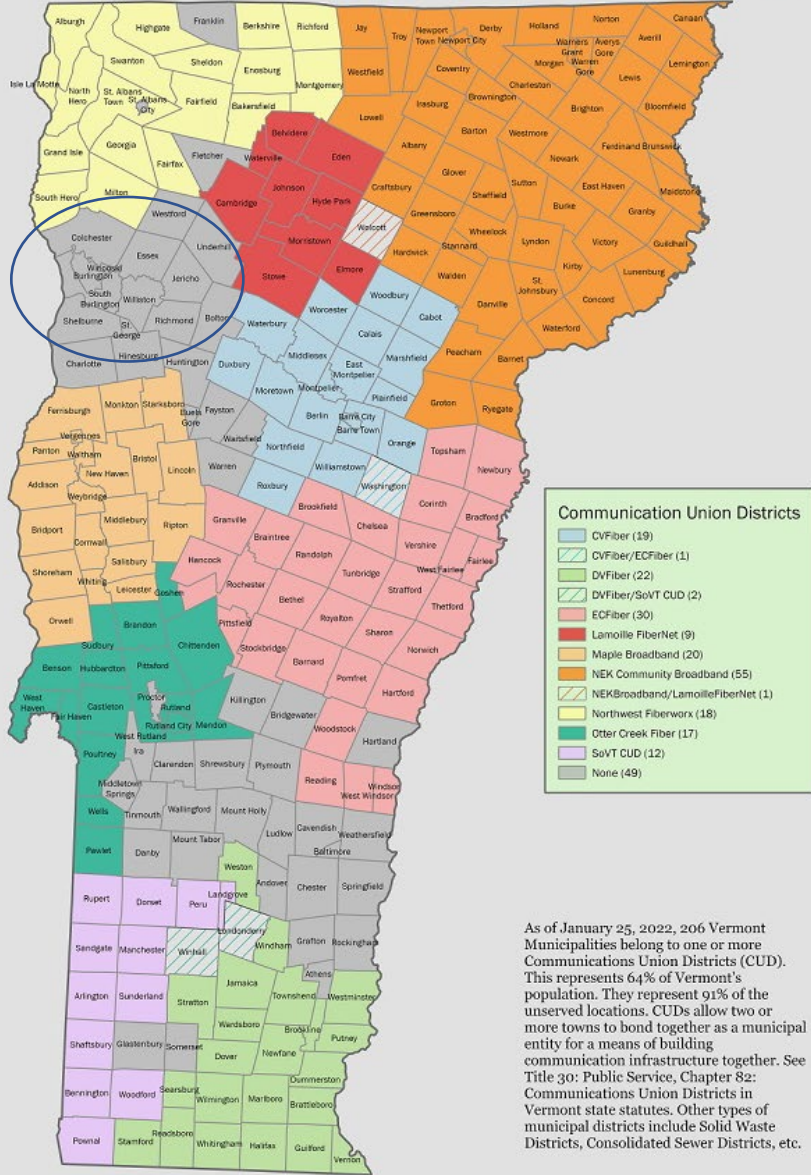
TDS planning on building fiber. NonCUD TDS areas may be served by ECFiber

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“Orphan Town” Characteristics

- Not a member of a CUD
- Not served by a provider offering 100/100 Mbps with plans to expand
- Extensive Cable Service
- Telephone service split between two providers
- Suburban development -> increased underground
- Pockets of underserved surrounded by cable
- Telephone service from a provider not eligible for applying directly for grants (Consolidated)
- Did not apply nor receive for Broadband Innovation Grants – Feasibility & Business Planning → no initial planning and did not benefit from PreConstruction Program



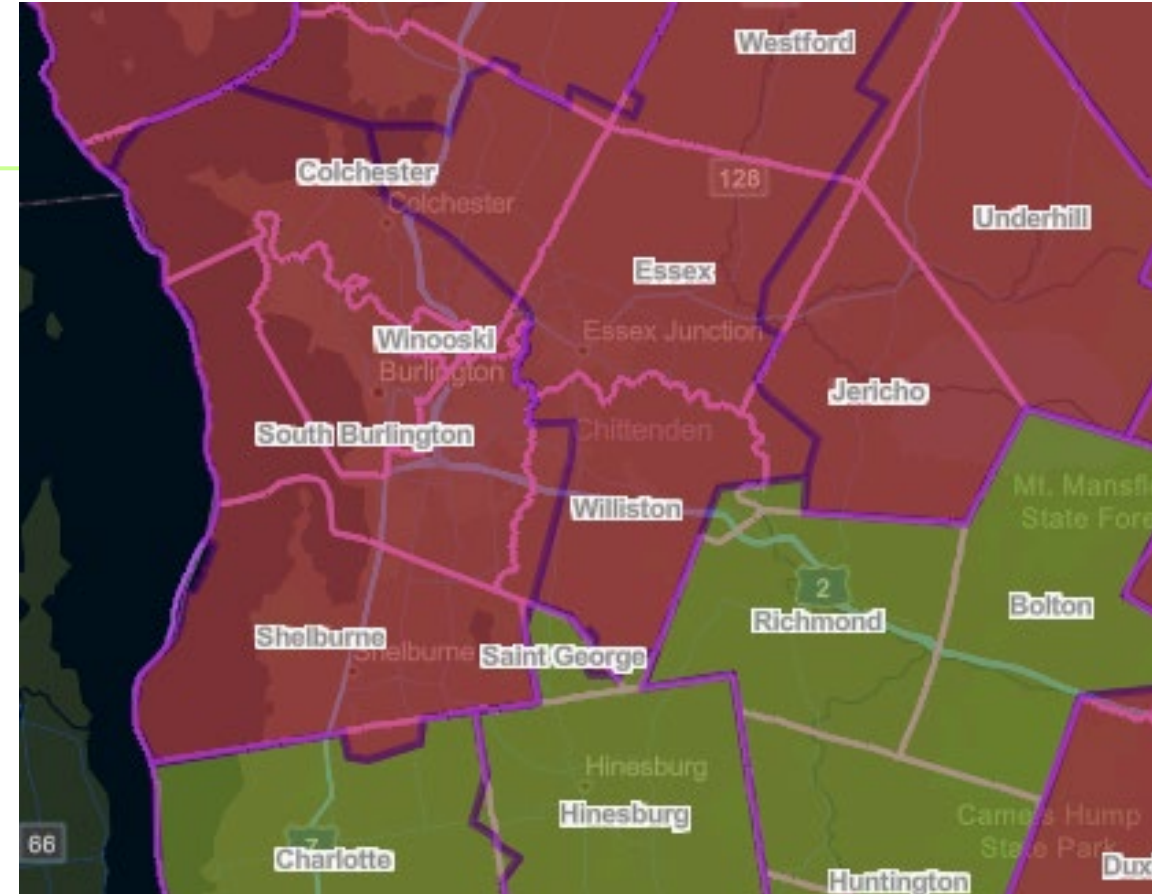
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Further Defining “Orphan Towns”

- Difficult business case in some instances due to mix of served/unserved
- Lack of public oversight and coordination for broadband
- Colchester, Westford, Jericho, Underhill, Williston, Essex Towns and Junction, Shelburne, South Burlington and Charlotte
- Business case for cable = likely that a private provider will deploy fiber
- 975 underserved addresses are in “Orphan Towns (1.52% of all underserved addresses)
- *Note: S Burlington and Essex Junction are included despite active BT Telecom Fiber Builds.*

By the numbers – “Orphan Towns”

	Underserved Road Miles/State Grants (60%)	Expected Match (40%)	Total
Charlotte	0.11%	\$342,100.00	\$570,166.67
Colchester	0.15%	\$466,500.00	\$777,500.00
Shelburne	0.20%	\$622,000.00	\$1,036,666.67
South Burlington	0.03%	\$93,300.00	\$155,500.00
Underhill	0.12%	\$373,200.00	\$622,000.00
Jericho	0.17%	\$528,700.00	\$881,166.67
Essex	0.14%	\$435,400.00	\$725,666.67
Essex Junction	0.02%	\$62,200.00	\$103,666.67



Construction Grants based on assumption of \$311M after this year's budget bill and the Infrastructure Bill

Challenges in Orphan Towns

COORDINATION

- **Who develops the required Universal Service Plan when wire centers are split by multiple phone companies?**
- **Scattered addresses require extensive overbuild of cable to achieve universal service.**
- **Additional Planning Necessary**

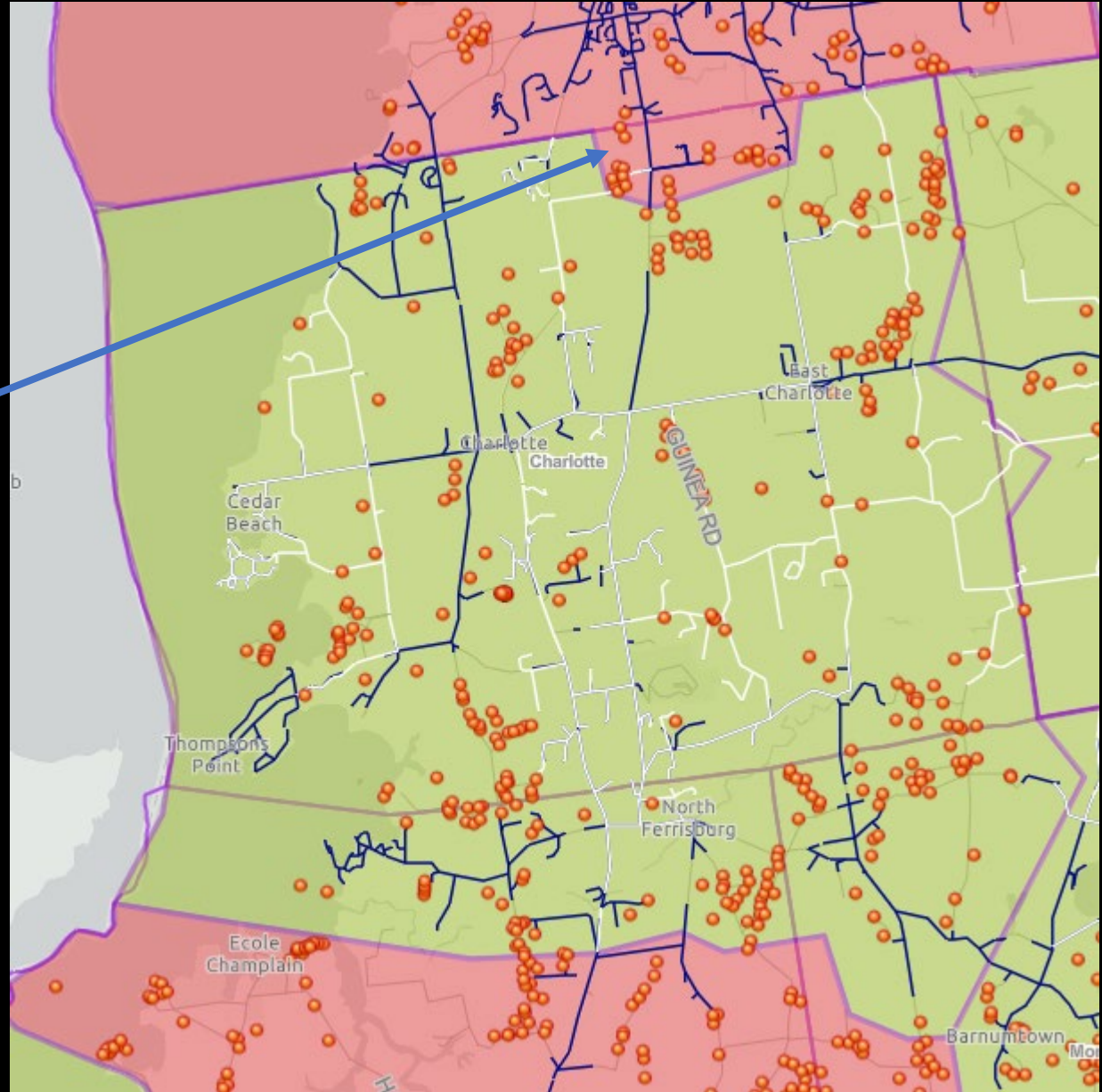
EXISTING INFRASTRUCTURE

- **Underground Utilities**
- **Gaps in Infrastructure**
- **Exclusive Conduit – Multi-Dwelling Units, New Developments, Manufactured Homes**

CHARLOTTE

Challenge:
Universal
Service Plan

Wire Centers
Shared between
multiple providers

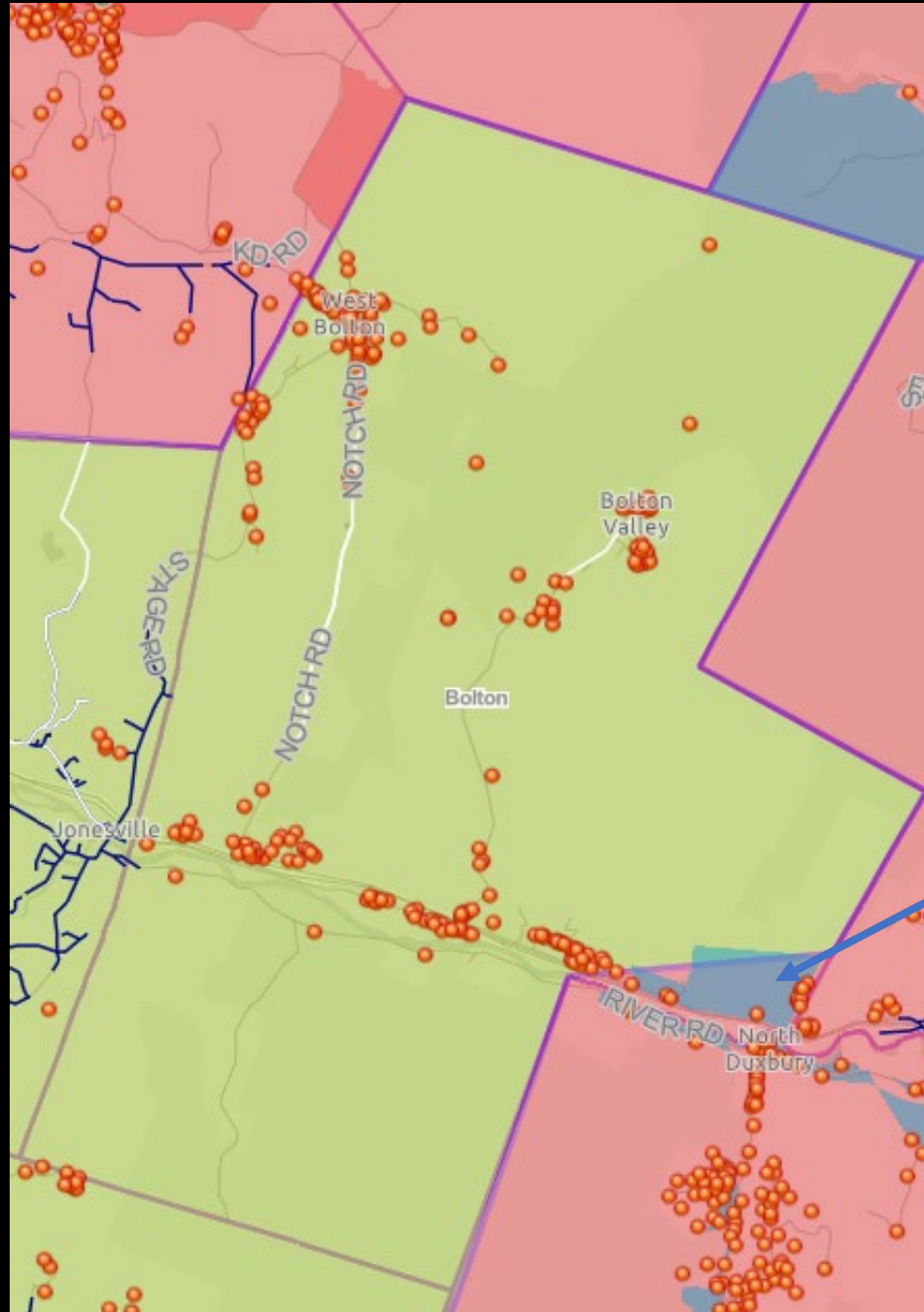


COORDINATION

BOLTON:

Challenge:
Universal
Service Plan

Wire Centers
Shared between
multiple providers



Tentative Plan:

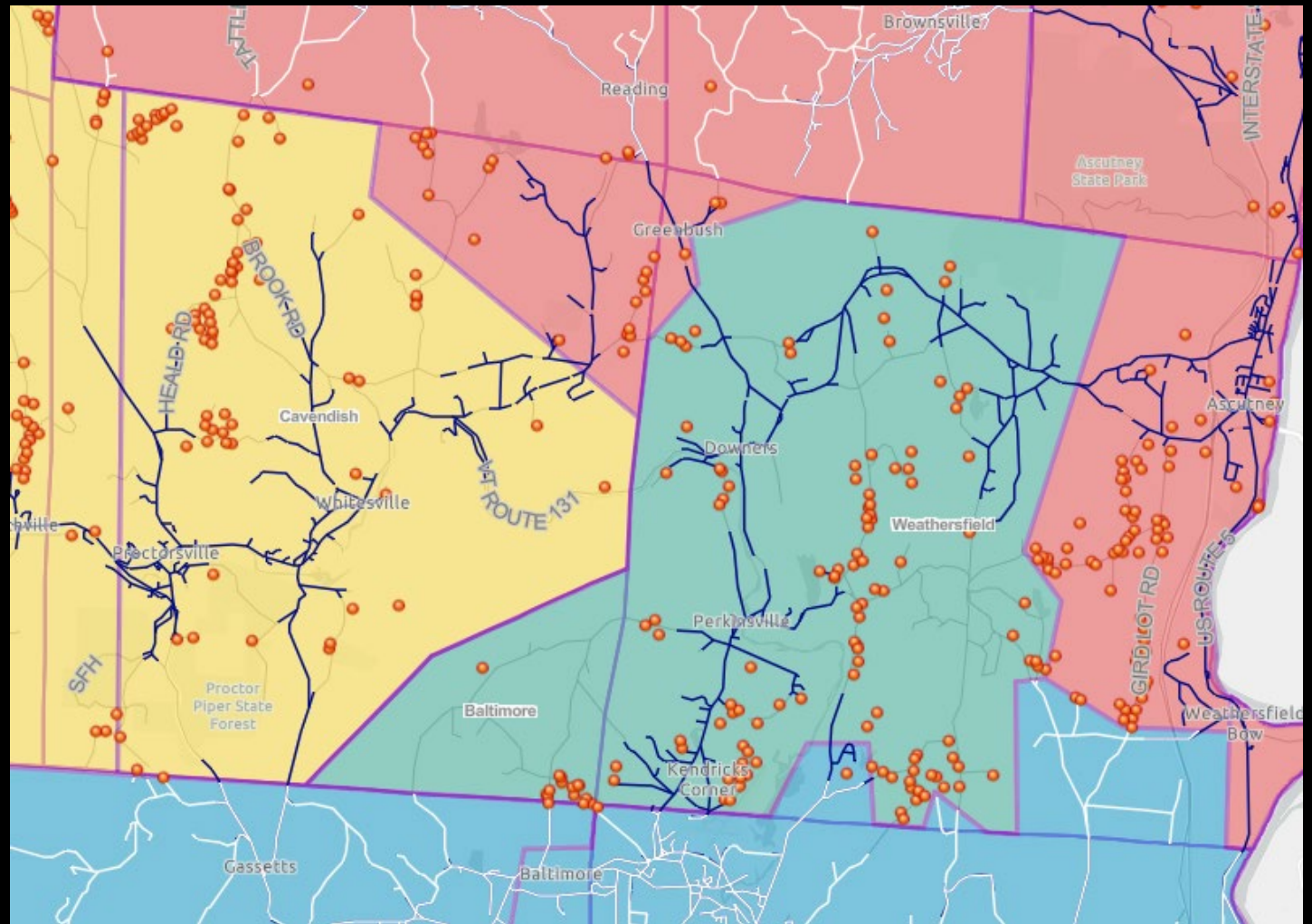
- WCVT building out their areas
- Consolidated committing to build out the RDOF areas

COORDINATION

WEATHERSFIELD and CAVENDISH

Challenge:
Universal
Service Plan

Wire Centers
Shared between
multiple providers



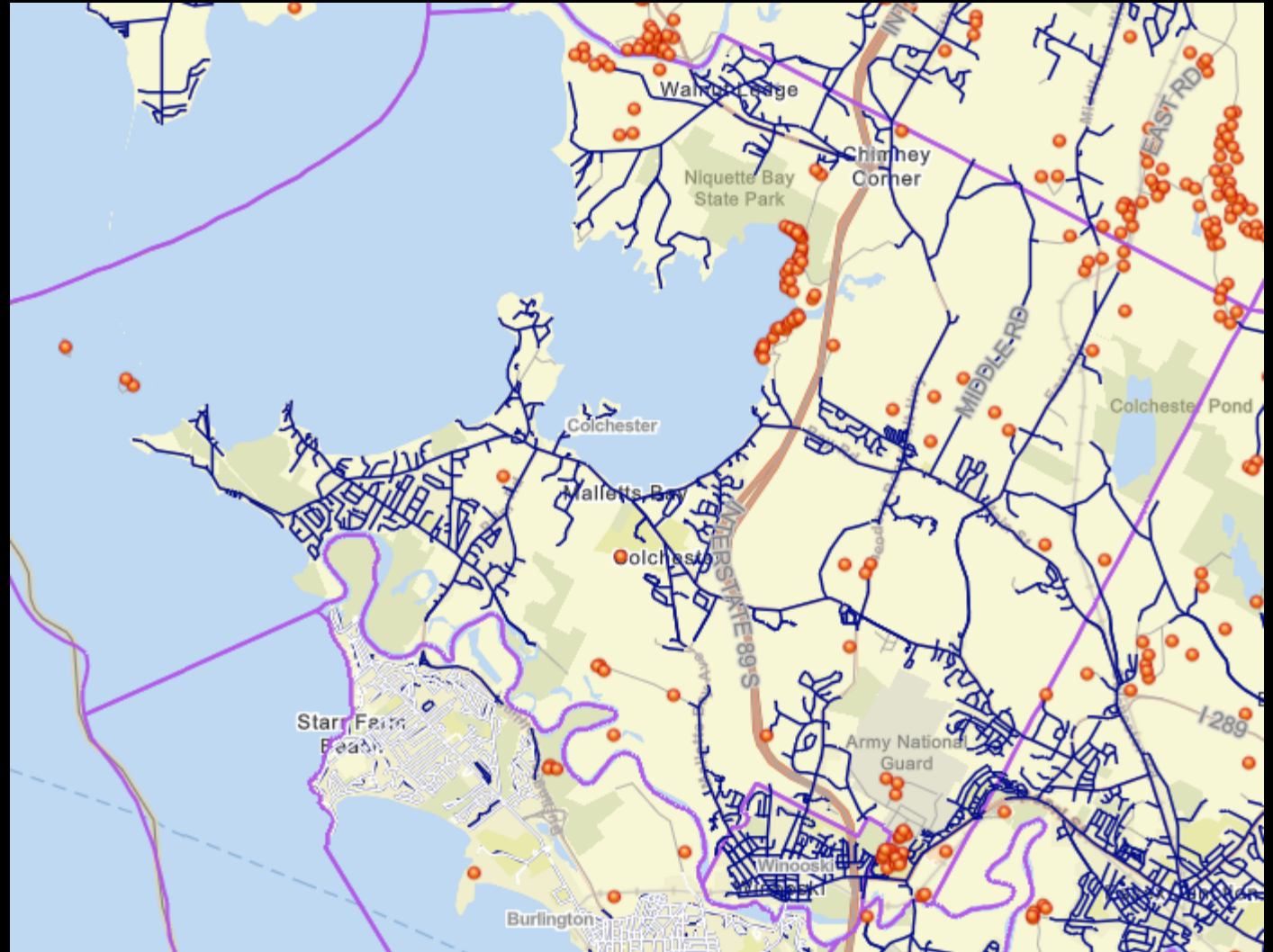
Tentative Plan:

- TDS building out their wire-center (Blue/Yellow)
- ECFiber other areas (Red)
- No solution for the stray address in VTel (blue)

COORDINATION

COLCHESTER

Challenge:
Scattered
Underserved
Locations



EXISTING INFRASTRUCTURE

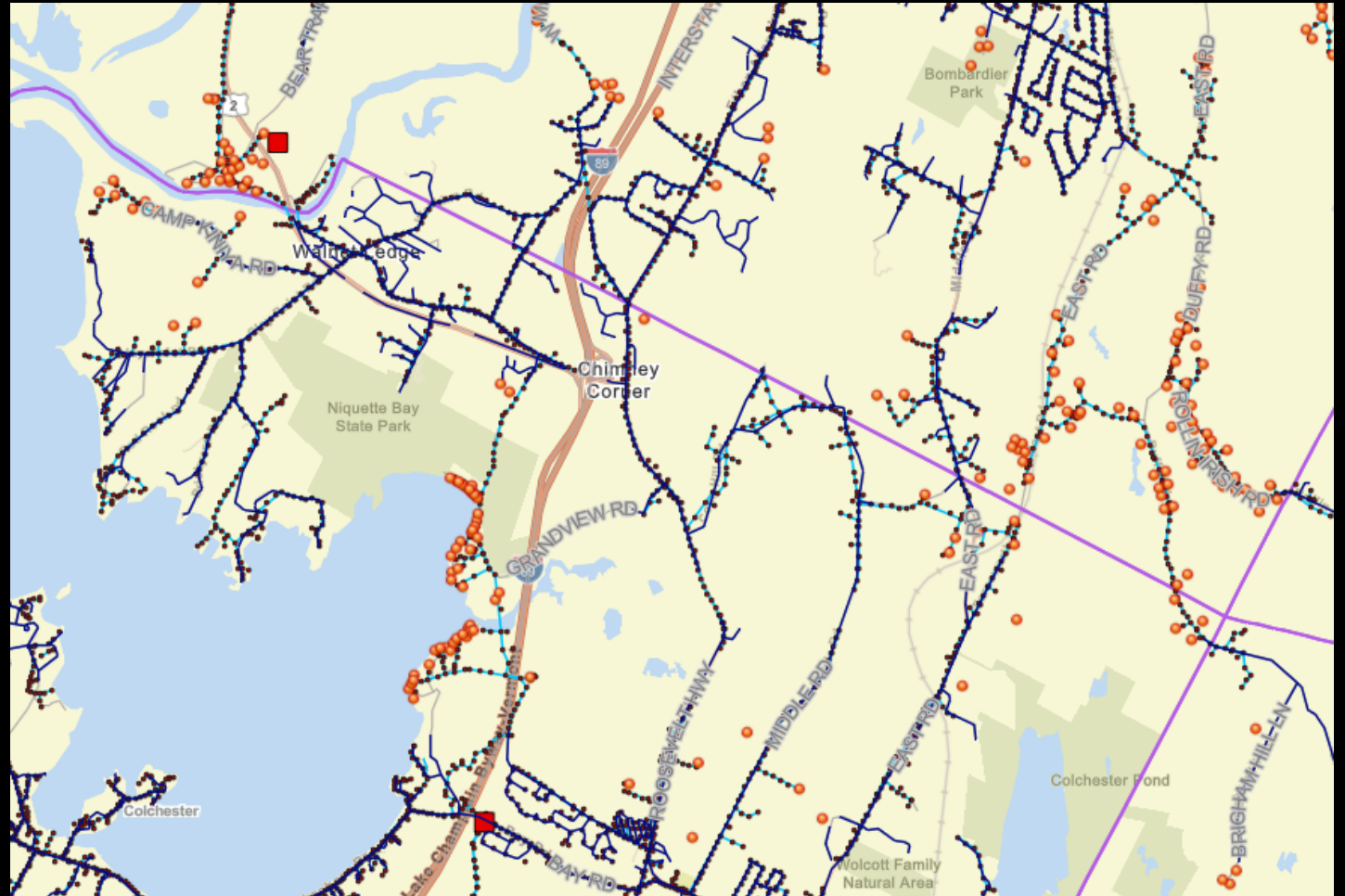
COLCHESTER

Example:

- Fiber at the substations (squares)
- Milton is member of a CUD and will be built out

BUT

Provider would also have to serve Pine Island Rd on opposite side of town. The cost of the overbuild between locations exceeds grant funding



- Who will do the planning and coordination between multiple entities to ensure alignment with the required Universal Service Plan?
- Can a town contract for service with a CUD vs becoming a member?

COORDINATION



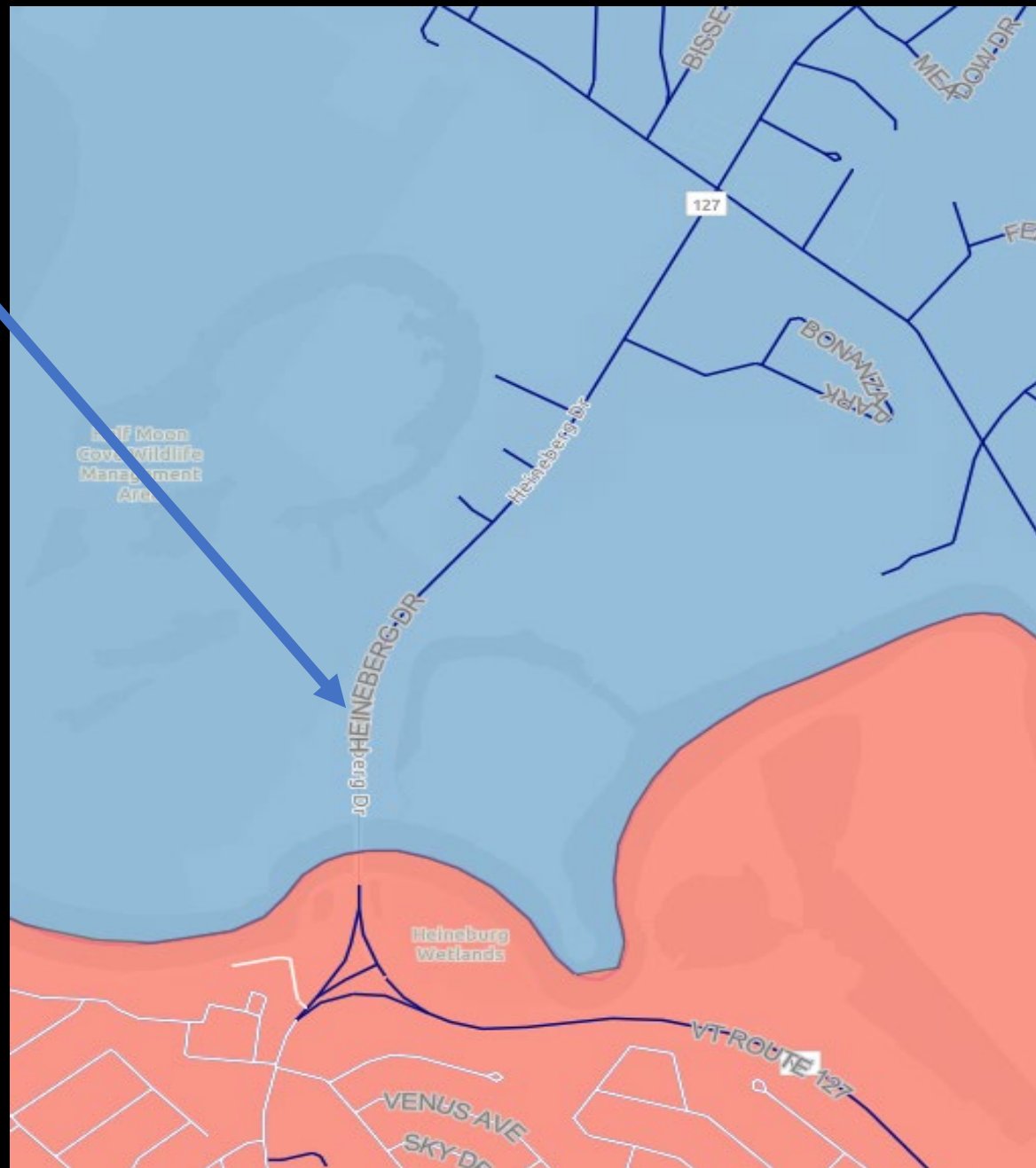
Challenge: Underground

- New Residential Developments
- Costs 3X of overhead
- Manufactured Housing Parks
- Conduit in Multi Dwelling Units – Exclusivity?

EXISTING INFRASTRUCTURE

COLCHESTER

Challenge:
Infrastructure
Gaps



EXISTING INFRASTRUCTURE

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Questions?
Ideas?
Next Steps?