



The Vermont Zoning Atlas

A hands-on guide to learning about land use

Room: Emerald II
3:00 pm - 4:30 pm

Introductions



Kendall Fortney

Director

Vermont Research Open
Source Program Office
(VERSO)

University of Vermont



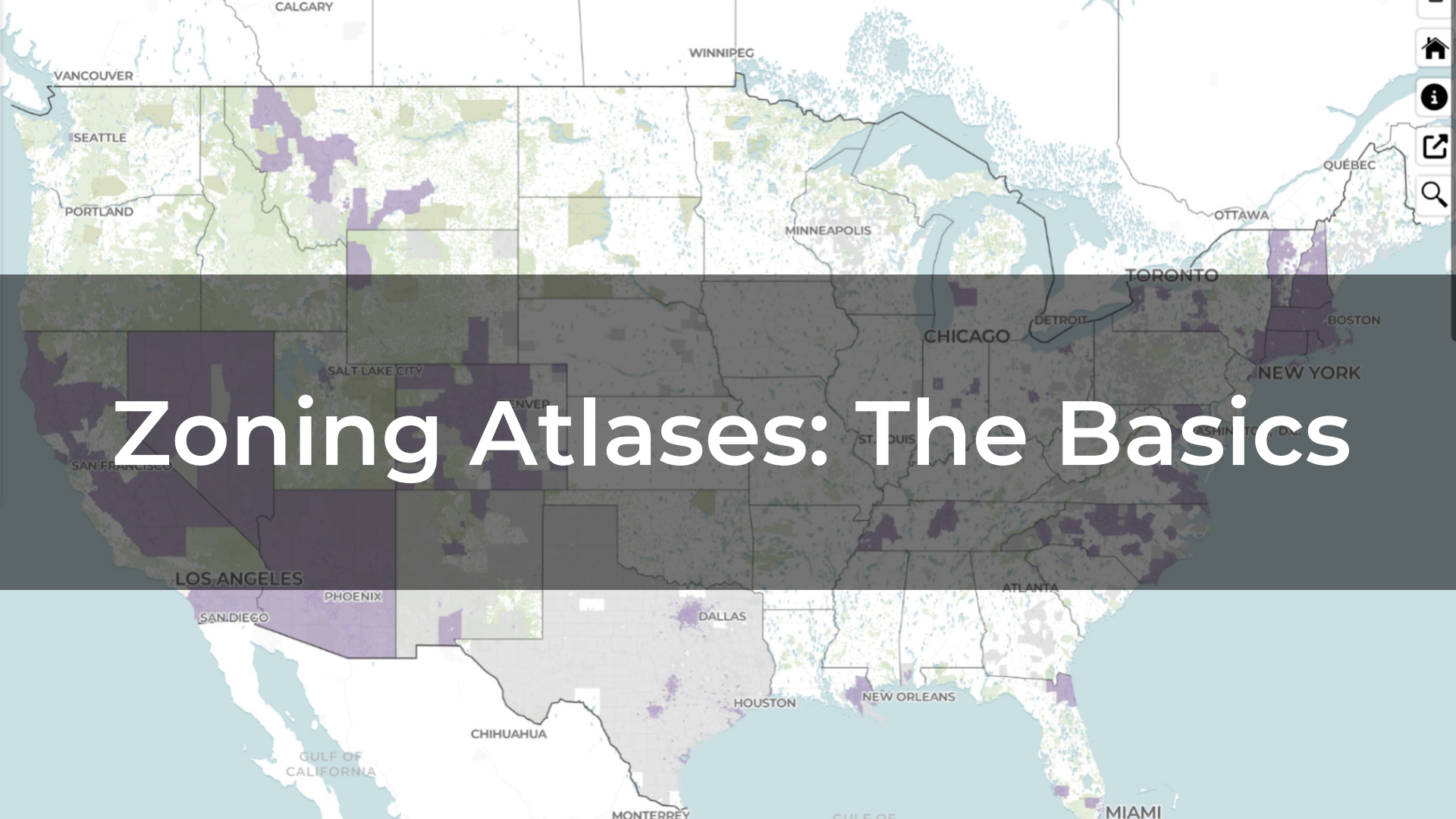
Yoshi M. Bird

Associate Director of
Partnerships Compliance
Code For America



John E. Adams

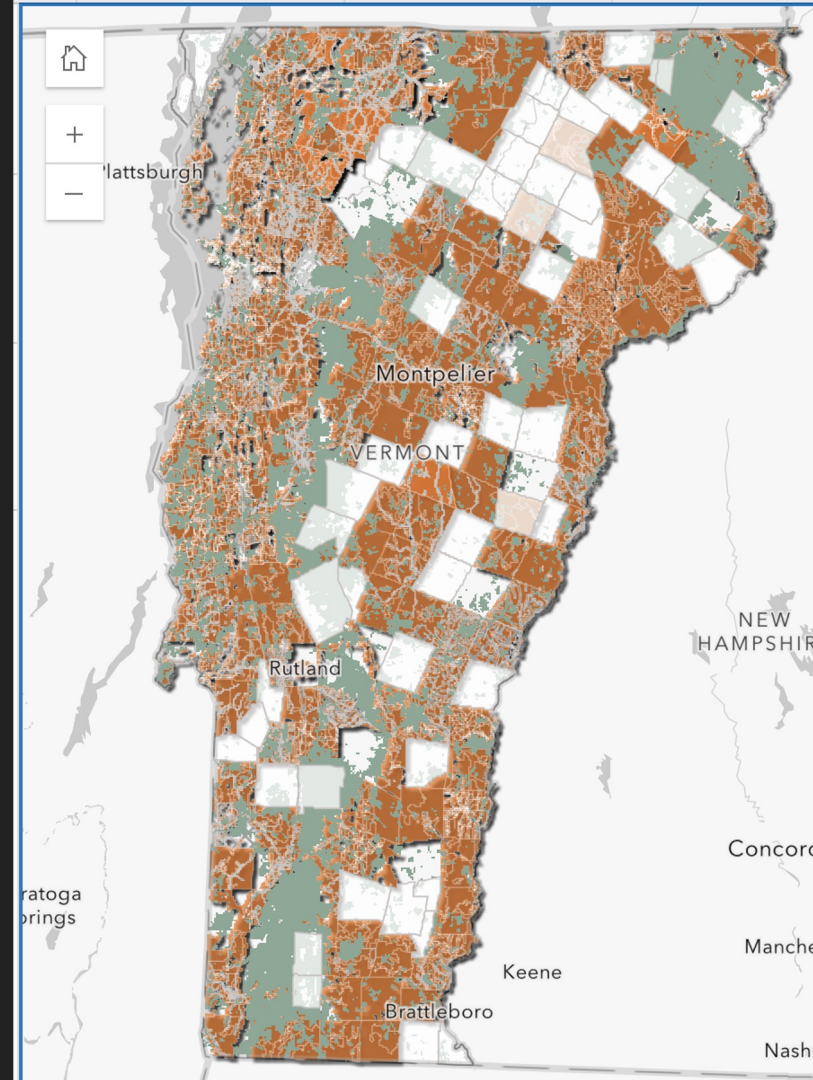
Director
Vermont Center for
Geographic Information
Agency of Digital Services



Zoning Atlases: The Basics

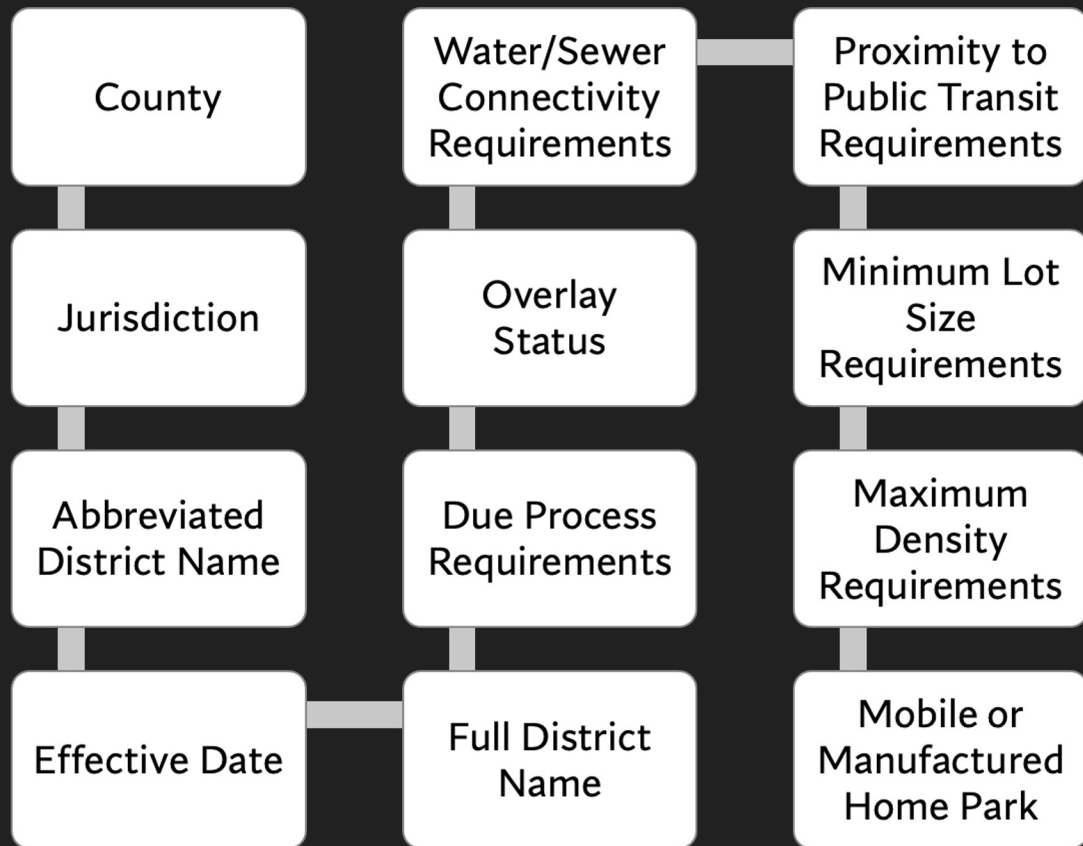
What is a Zoning Atlas?

- A visualization of geospatial distributions of zoning laws
- A national research methodology
- A powerful tool for science and policy communication



The methodology

Zoning Atlases catalogue and map features of zoning code bylaws across districts, jurisdictions, and states.

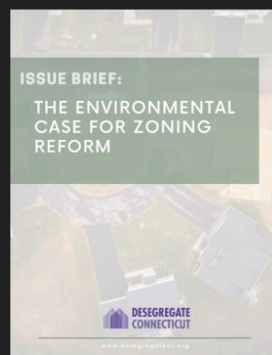
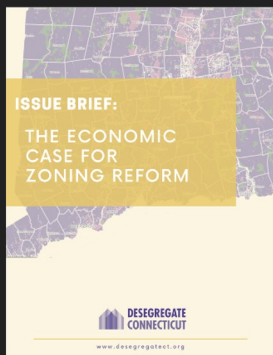


Why do Zoning Atlases matter?



Zoning Atlases promote:

- Climate change resiliency
- Improved public transit
- Economic development
- Housing access
- Racial equity



They represent:

- Democracy
- Accountability
- Transparency

Features of the national dataset

HOW TO MAKE A ZONING ATLAS:

A METHODOLOGY FOR TRANSLATING &
STANDARDIZING DISTRICT-SPECIFIC REGULATIONS

by Sara C. Bronin & Ilya Ilyankou

First published December 2021
revised March 2022, April 2022 (1st author), May 2022, July 2022
last revised October 2022

NATIONAL
ZONING
ATLAS

Residential Development

- Due process requirements
- Minimum Lot Size
- Maximum Density
- Minimum Parking Requirements
- Maximum Height (Stories/Feet)
- Limited to Elderly Housing Only?
- Requires Cnxn to Sewer, Water?
- Requires Cnxn to Public Transit?

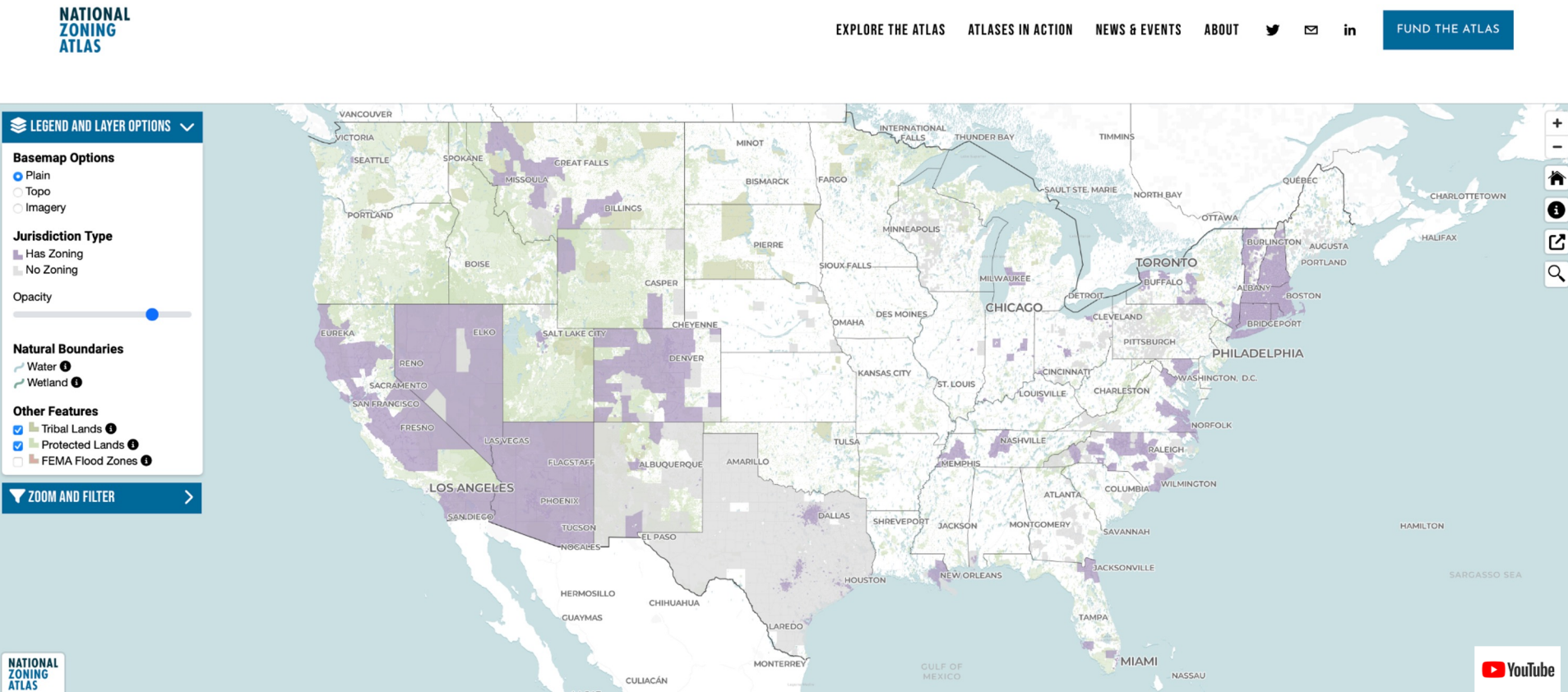
Accessory Dwelling Units

- Employee or Family Occupancy Required
- Renter Occupancy Prohibited
- Owner Occupancy Required
- Elderly Housing Only
- Restricted to Primary Structure

Planned Residential Developments

- Mobile homes allowed?

Case Study: National Zoning Atlas



A scenic landscape of Vermont. In the foreground, there are trees with autumn foliage in shades of yellow and orange. In the middle ground, a large body of water, likely Lake Champlain, stretches across the frame. In the background, a prominent mountain peak rises against a clear sky. The text "The Vermont Story" is overlaid in the center in a large, white, sans-serif font.

The Vermont Story

Yoshi Bird

How it all began

*It first started when
Sara Bronin captured
our imaginations at
this very conference!*



2022 VERMONT STATEWIDE
HOUSING CONFERENCE

Keynote Speaker

SARA BRONIN

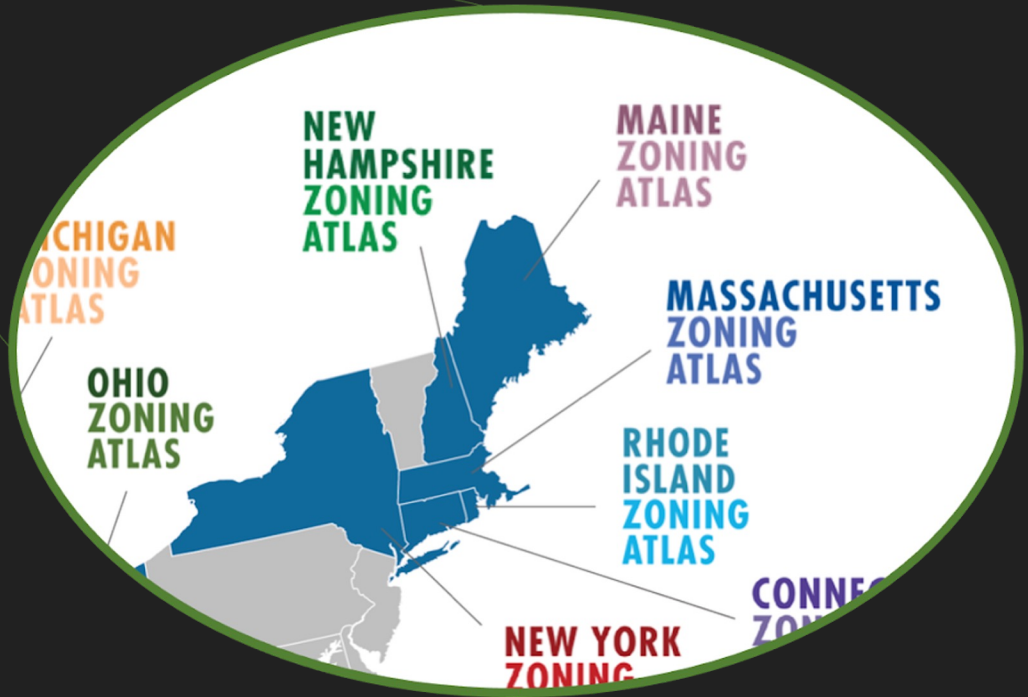
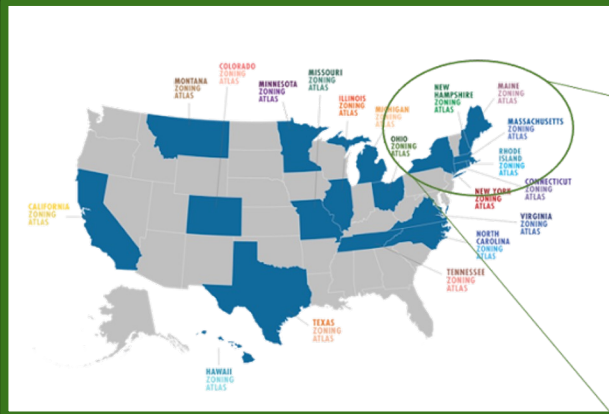
Professor, Cornell University and
Director, National Zoning Atlas

Nov. 16, 2022
Burlington, VT
vhfa.org/conference



Our origin story





*Vermont was
the last New England
state to build a
Zoning Atlas.*

Why Vermont? Why now?

Vermont is known for our:

- Uniquely bucolic character
- Quaint downtown districts
- Vast agricultural land
- Open recreational spaces
- Commitment to ecological conservation
- Democratic ideals



Vermont lawmakers eye statewide zoning to encourage multifamily dwellings



By Celine Cutler
Published: Feb. 16, 2023 at 6:17 PM EST | Updated: Feb. 16, 2023 at 6:29 PM EST



SOUTH BURLINGTON, Vt. (WCAX) - Vermont lawmakers are digging into a sweeping housing bill designed to

Lawmakers eye controversial changes to Act 250 in bid to spur housing development

Vermont Public | By Peter Hirschfeld

Published February 16, 2023 at 5:50 PM EST

LISTEN - 5:31



Members of the Senate Committee on Economic Development, Housing and General Affairs heard from more than 60 witnesses over the past six weeks as they drafted a bill that aims to address the housing crunch in Vermont.

PUBLIC SQUARE

A CHU Journal



Vermont Is zoning For great neighborhoods

Small changes to zoning bylaws are making a big difference in the Green Mountain State.

By JANE LOVE TOMASSO FEB. 7, 2023



Brattleboro, Vermont is known for its thriving [downtown arts scene](#), crunchy culture, and eclectic festivals

...yet!

- The statewide housing market is strained to the limit
- Our per capita homelessness rate ranks second in the nation

Our history



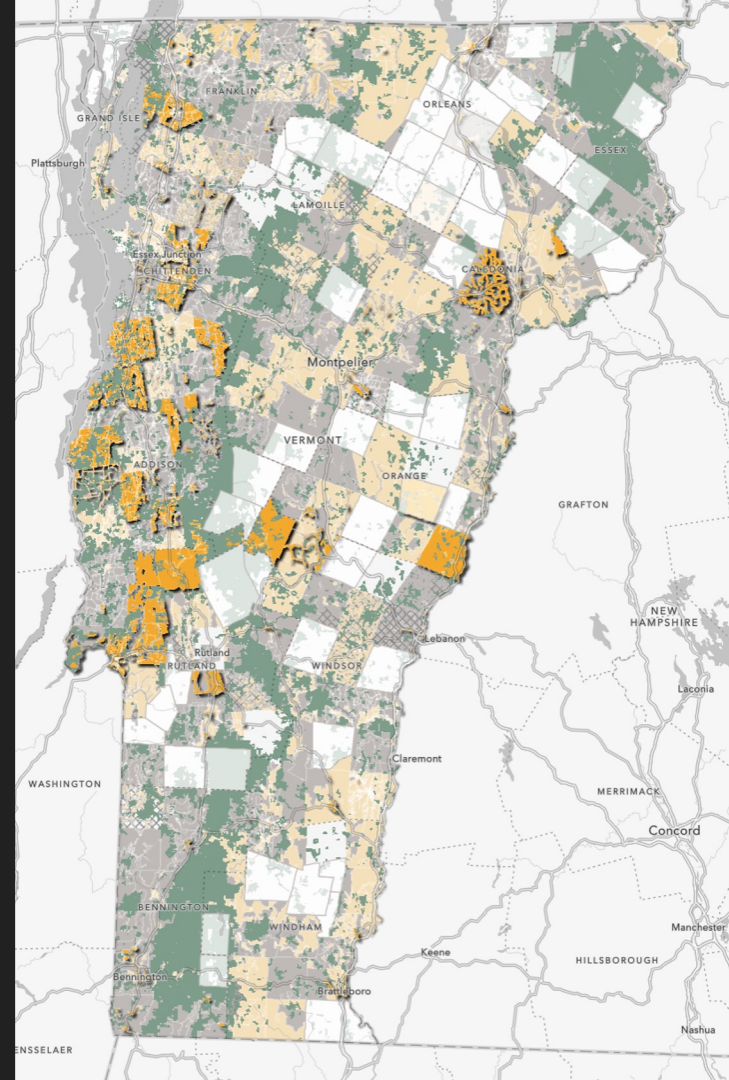
... And looking toward our future!

The Steering Committee

The Vermont Zoning Atlas is a cross-sector, public-private, multidisciplinary collaboration:

- State of Vermont
- Vermont Association of Planning & Development Agencies
- Center for Geographic Information
- Chittenden County Regional Planning Commission
- Northwest Regional Planning Commission
- Vermont Housing Finance Agency
- Champlain Valley Office of Economic Opportunity
- University of Vermont
- Middlebury College

... And so many volunteers!



Our intrepid teams



Vermont Custom Fields

We added custom fields to the methodology to capture some unique features of the Vermont regulatory landscape.

Vermont Custom Questions	
5+-Family Affordable Housing Only	Yes No
5+-Family Elderly Housing Only	Yes No
5+-Family Min. Lot (ACRES)	[Numeric]
5+-Family Max. Density (UNITS/ACRE)	[Numeric]
5+-Family Front Setback (# of feet)	[Numeric]
5+-Family Side Setback (# of feet)	[Numeric]
5+-Family Rear Setback (# of feet)	[Numeric]
5+-Family Max. Lot Coverage – Buildings (%)	[Numeric]
5+-Family Max. Lot Coverage – Buildings & Impervious Surfaces (%)	[Numeric]
5+-Family Min. # Parking Spaces Per Studio or 1BR	[Numeric]
5+-Family Min. # Parking Spaces Per 2+ BR	[Numeric]
5+-Family Connection to Sewer and/or Water Required	[Numeric]
5+-Family Connection or Proximity to Public Transit Required	[Numeric]
5+-Family Max. Height (# of stories)	[Numeric]
5+-Family Max. Height (# of feet)	[Numeric]
5+-Family Floor to Area Ratio	[Numeric]
5+-Family Min. Unit size (SF)	[Numeric]
5+-Family Max. # Bedrooms Per Unit	[Numeric]
5+-Family Max. # Units Per Building	[Numeric]
Base Residential Density	[Numeric]
1-Family Lot Frontage Requirements	[Numeric]
2-Family Lot Frontage Requirements	[Numeric]
3-Family Lot Frontage Requirements	[Numeric]
4-Family Lot Frontage Requirements	[Numeric]
5+-Family Lot Frontage Requirements	[Numeric]
PUD required with Subdivision	Yes No
PUD Threshold #	[Numeric]
PUD allowed	Yes No
PUD requiring land conservation	Yes No

Open Science, Open Government

VT Open Geodata Portal

VT Data - Williston Zoning



Pam Brangan
Chittenden County Regional Planning
Commission

Summary

Zoning District data for the Town of Williston, Vermont. Data corresponds to the zoning regulations last amended on October 4, 2022.

[View Full Details](#)

[Download](#)

Details



Dataset
Feature Layer



December 12, 2022
Info Updated



June 15, 2022
Data Updated



December 24, 2018
Published Date



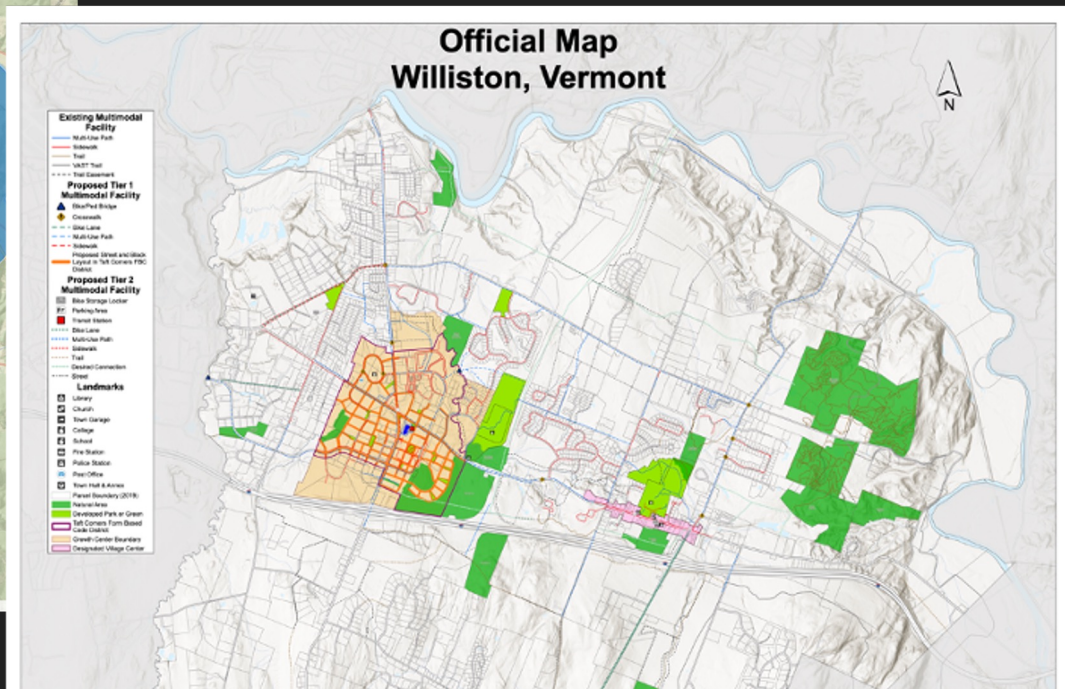
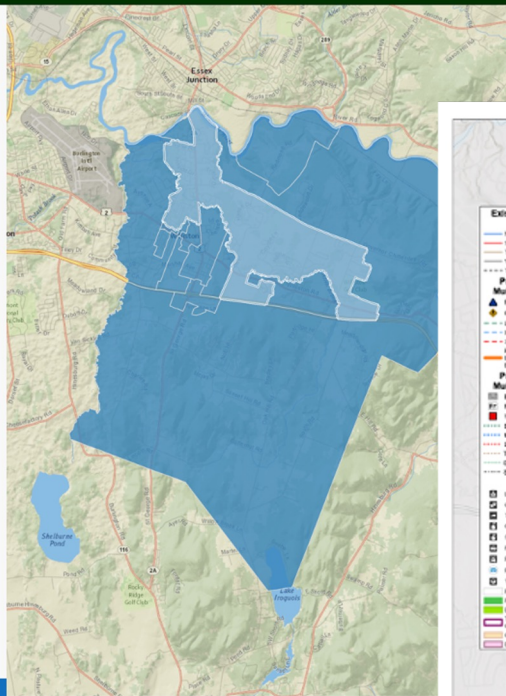
13 Records
[View data table](#)



Public
Anyone can see this content



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I want to use this

Vermont Center for Geographic Information (VCGI)

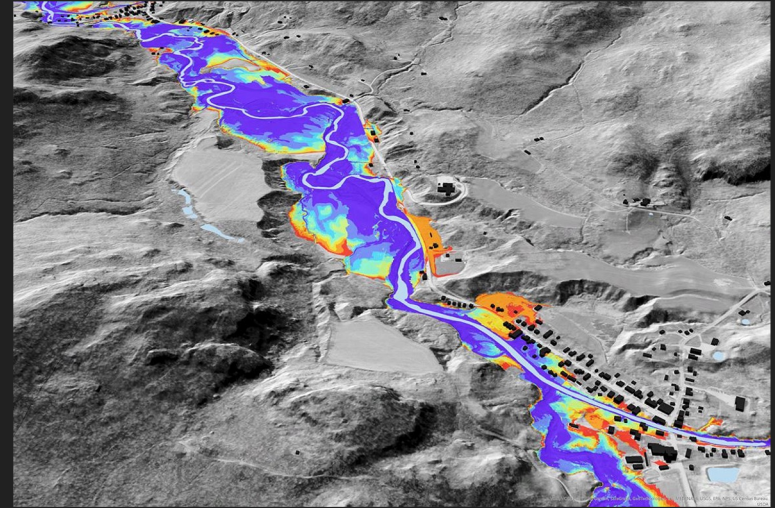
- division of the State of Vermont's Agency of Digital Services (ADS)
- provides high quality geospatial data, services, and geographic information system (GIS) infrastructure for public use in ways that are consistent with our enabling legislation.

Agency Website

<https://vcgi.vermont.gov/>

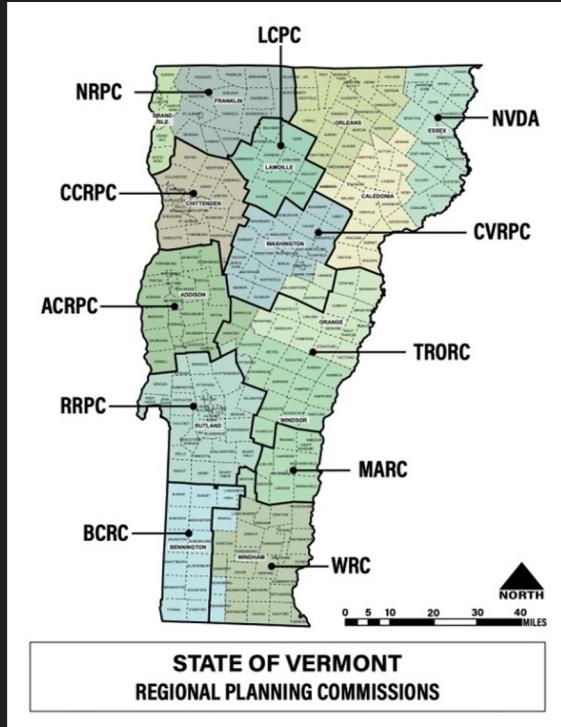
Open Data Portal

<https://geodata.vermont.gov/>



Lake Champlain Basin Lidar-Informed Flood Inundation Layer Now Available
(<https://vcgi.vermont.gov/data-release/lake-champlain-basin-lidar-informed-flood-inundation-layer-now-available>)

The Vermont zoning landscape



Our small but mighty state features:

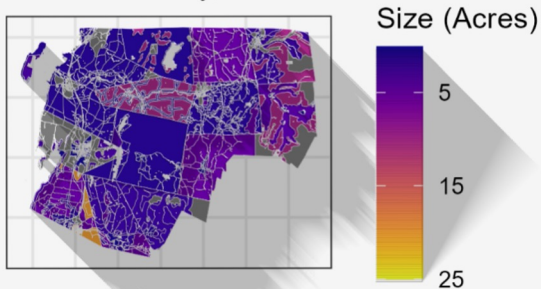
- *237 towns*
- *10 cities*
- *5 unincorporated towns*
- *4 gores*
- *35 incorporated villages*
- *11 regional planning commissions*

The finish line

Our final product

- Raw data at GitHub
- Four feature layers in arcGIS

Minimum Lot Size of Single
Family Housing
Franklin County, VT

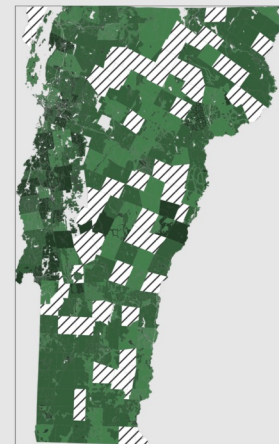


Three-Family Use by Right

Majority of land area **prohibits** three-family dwelling uses.

Key

- Allowed: 1,981.33 km^2
- Public Hearing Required: 6437.03 km^2
- Prohibited: 10,603.49 km^2
- Unzoned: 5466.76 km^2



How to use it

- Explore in qGIS, arcGIS
- Check out the state's app
- Run analytics
- Create visualizations
- Join with other data



What's Next

OPEN RESEARCH COMMUNITY ACCELERATOR

Translating academic research or community needs into open source projects through a passionate group of students



University
of Vermont



ORCA Program



We produce impactful, accessible, open research tools and community projects by training tomorrow's workforce in marketable open source skills.

ORCA By The Numbers

27

Students
Hired

15

Open
Projects

5,590

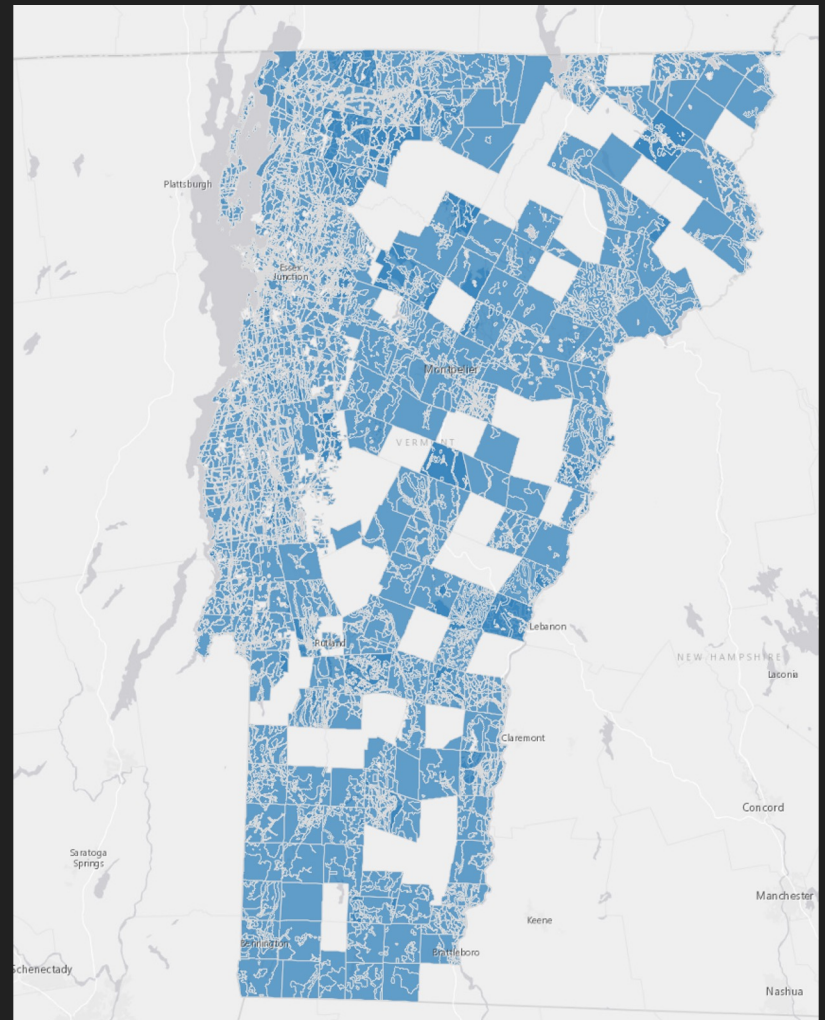
Hours
Worked

+

Vermont Zoning Atlas

ORCA Pod

Started January 2024 to support
the ongoing efforts thanks to an
anonymous donation!



VTZA ORCA By The Numbers

7

Students
Hired

1,550+

Hours
Worked

The VTZA ORCA Teams

Spring 2024

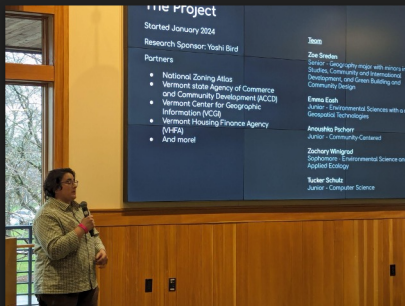
- Zoe Sreden (Team Lead)
- Anoushka Pschorr
- Emma Eash
- Tucker Schulz
- Zachary Winigrad

Summer 2024

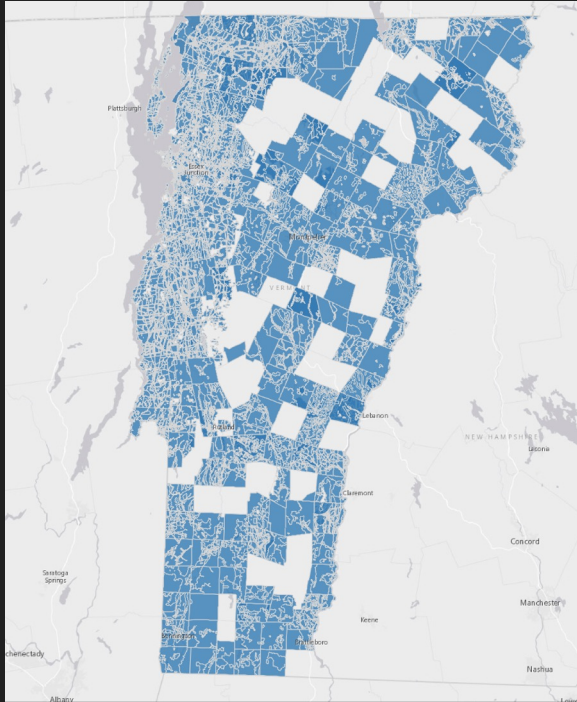
- Zachary Winigrad (Team Lead)
- Tucker Schulz
- Aleah Young

Fall 2024

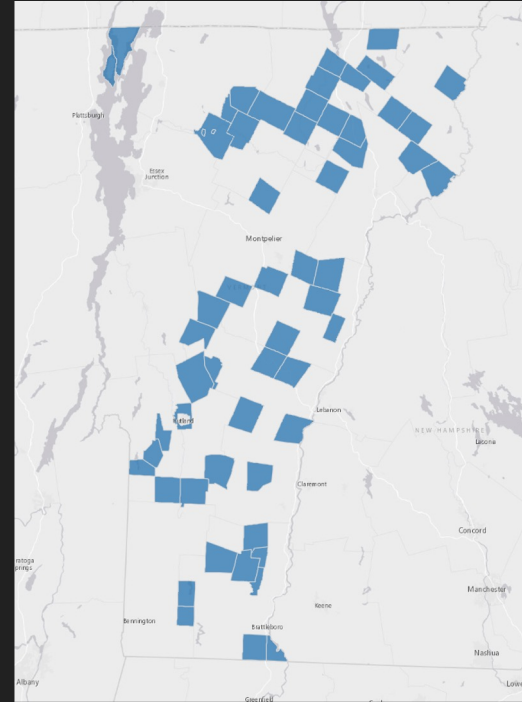
- Zachary Winigrad (Team Lead)
- Aleah Young
- Matthew Premysler



Zoned vs Unzoned Areas of Vermont



1,755 areas with Zoning



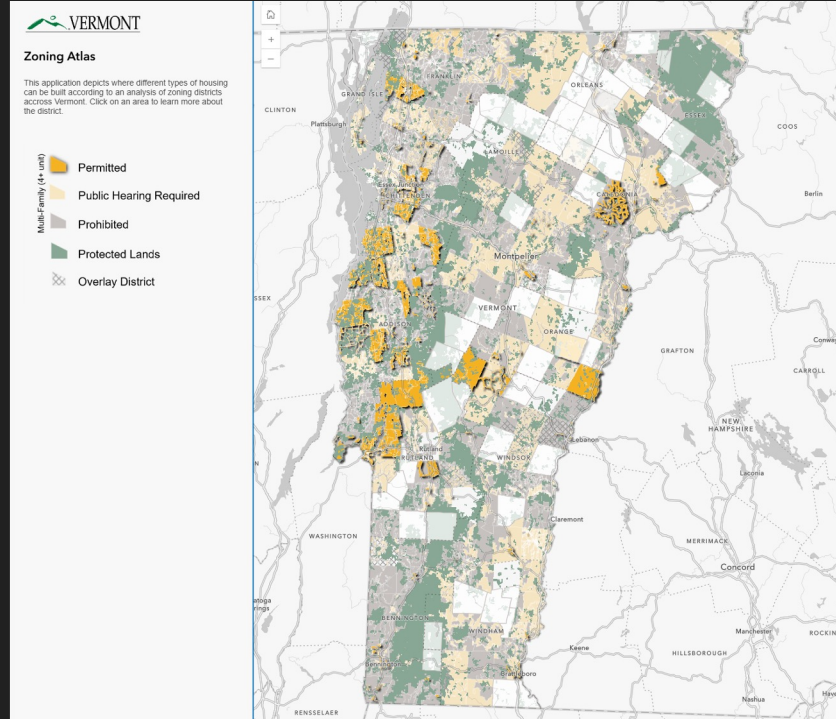
58 areas without Zoning

Permitted vs Public Hearing

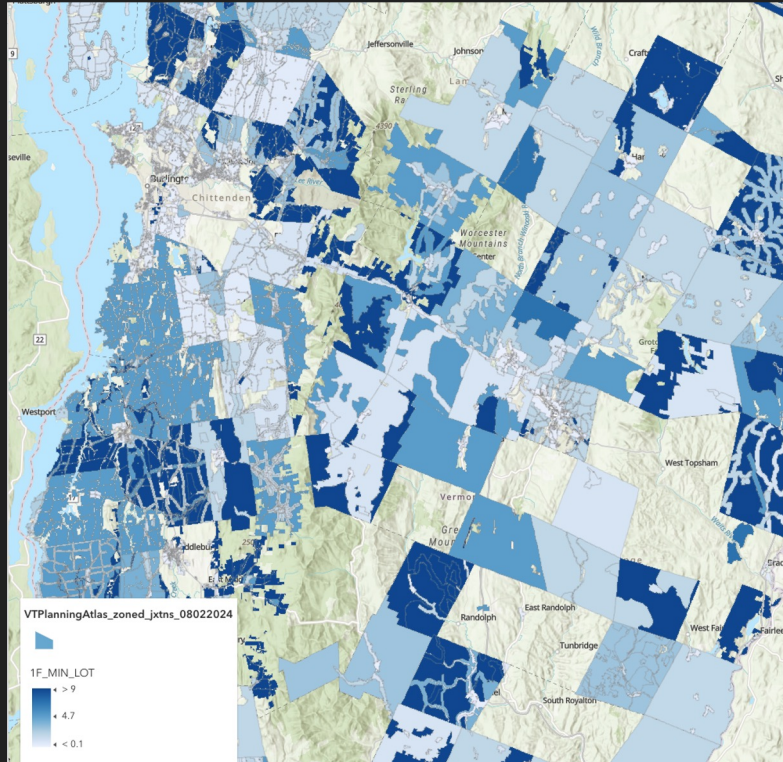
Created by VCGI

Where different types of housing can be built according to an analysis of zoning districts across Vermont

<https://arcg.is/TaTuz0>

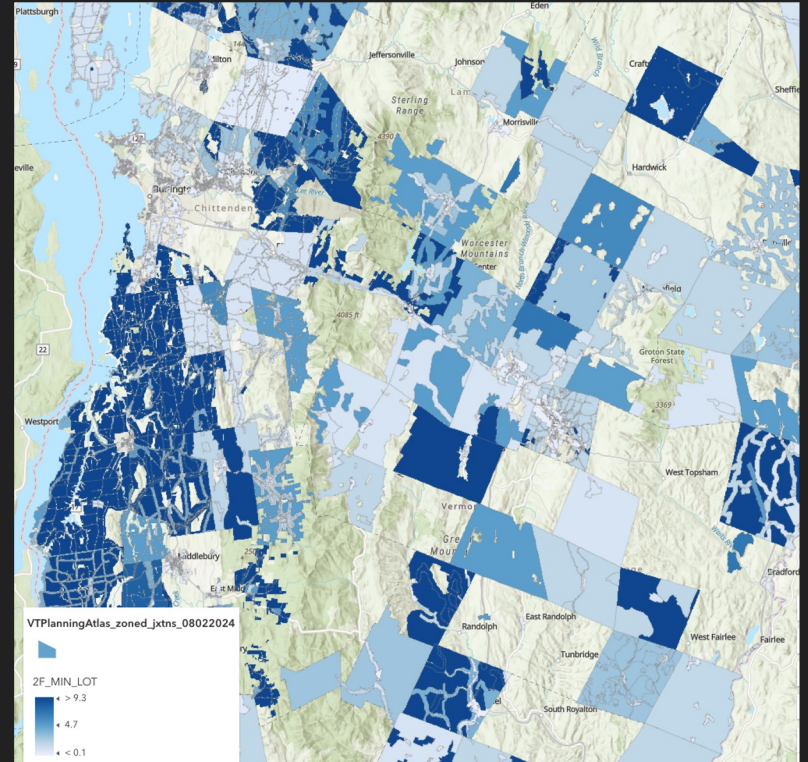


1 Family Min Lot Size



<https://arcg.is/00iKiq>

2 Family Min Lot Size



<https://arcg.is/1Dq9qu>

Future plan for the Zoning Atlas

- Revisit areas where zoning has already changed
- Openly publish the data
- Expanding analysis to include new datasets
- Work as a collaborative group to explore additional data

Demo

Vermont Zoning Atlas Pilot... With YOU!

We have created a website explorer for the Vermont Zoning Data, and we need YOUR feedback.

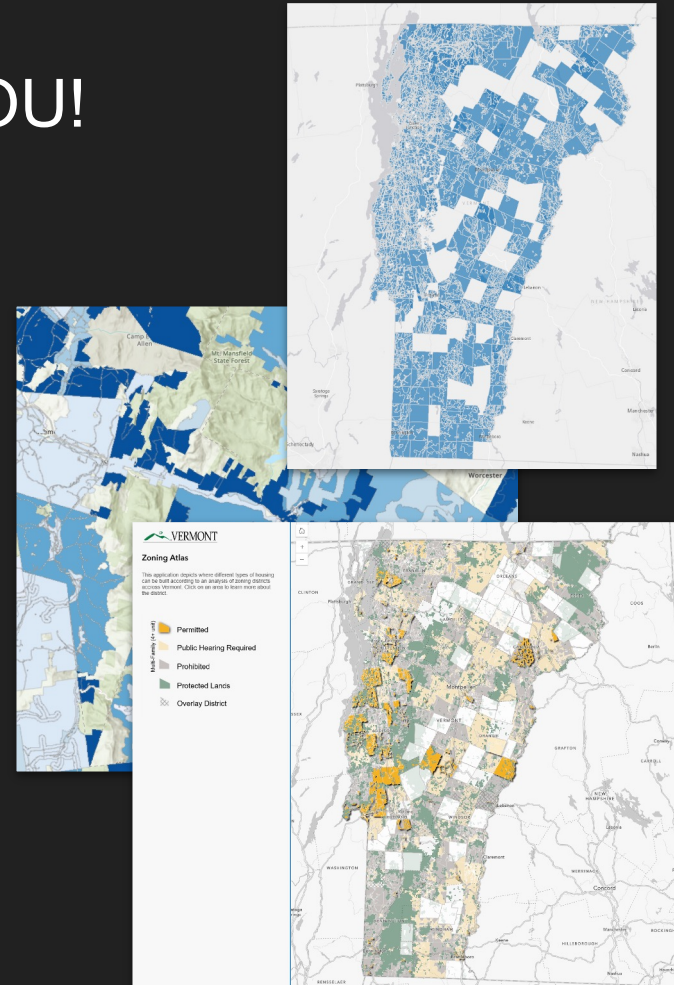
- Vermont Livability Map (BETA) <https://verso-uvm.github.io/Vermont-Livability-Map/>

ArcGis Maps

- 1 Family Min Lot Size <https://arcg.is/0OiKiq>
- 2 Family Min Lot Size <https://arcg.is/1Dq9qu>
- VCGI Permitted Map <https://arcg.is/TaTuz0>

VT Zoning Atlas Github

https://github.com/VERSO-UVM/VT_Zoning_Atlas





Questions

Please email kendall.fortney@uvm.edu if you have feedback, potential collaboration or ideas

