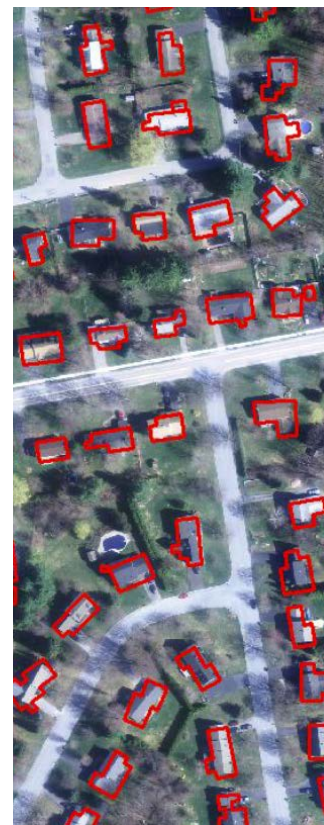


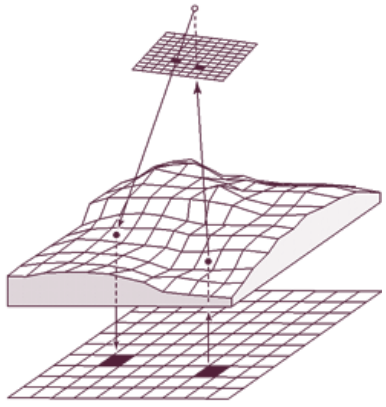
Data Needs Related to Impervious Surface / Parcel Fees

SENATE COMMITTEE ON NATURAL RESOURCES & ENERGY

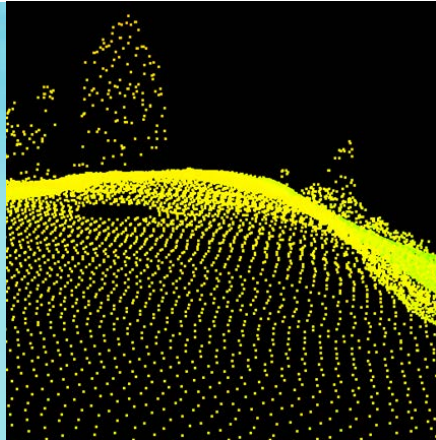
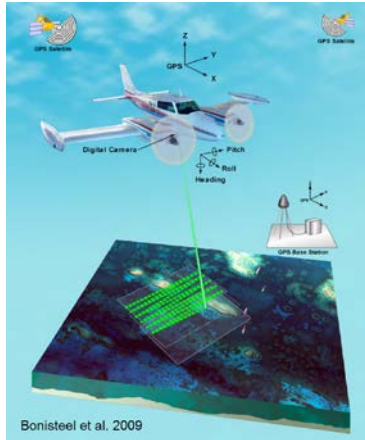
FEBRUARY 26, 2019

JOHN E. ADAMS

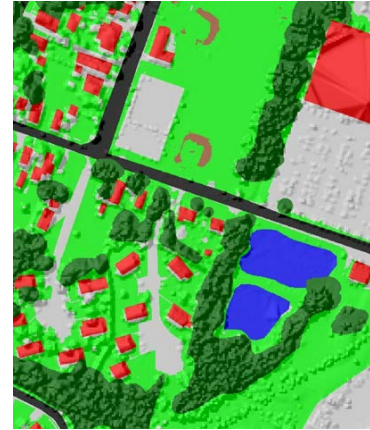
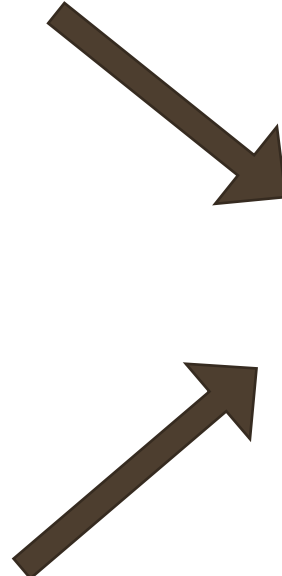




ORTHOIMAGERY

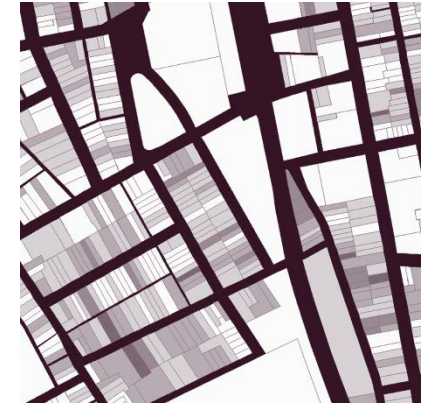


LIDAR



Courtesy UVM SAL

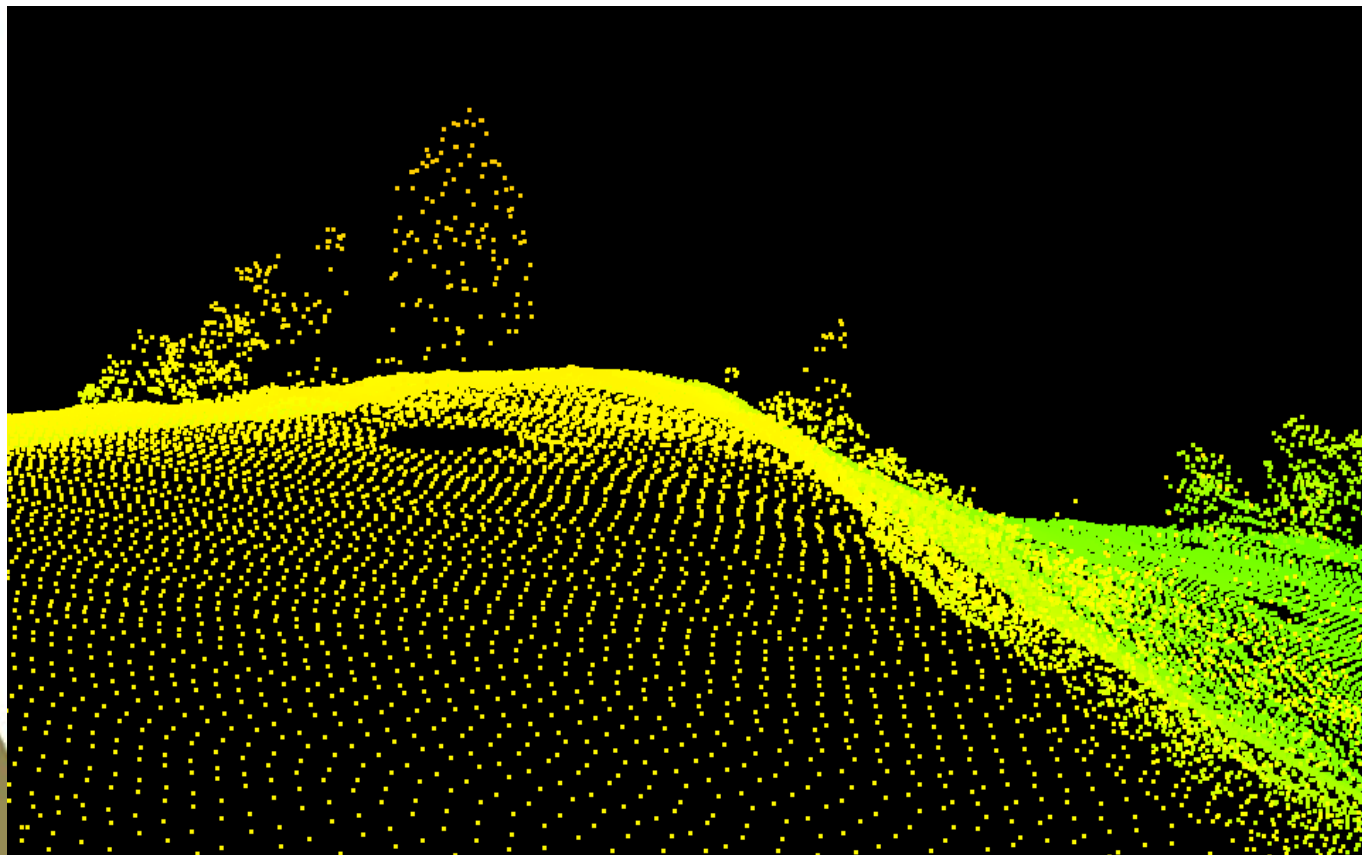
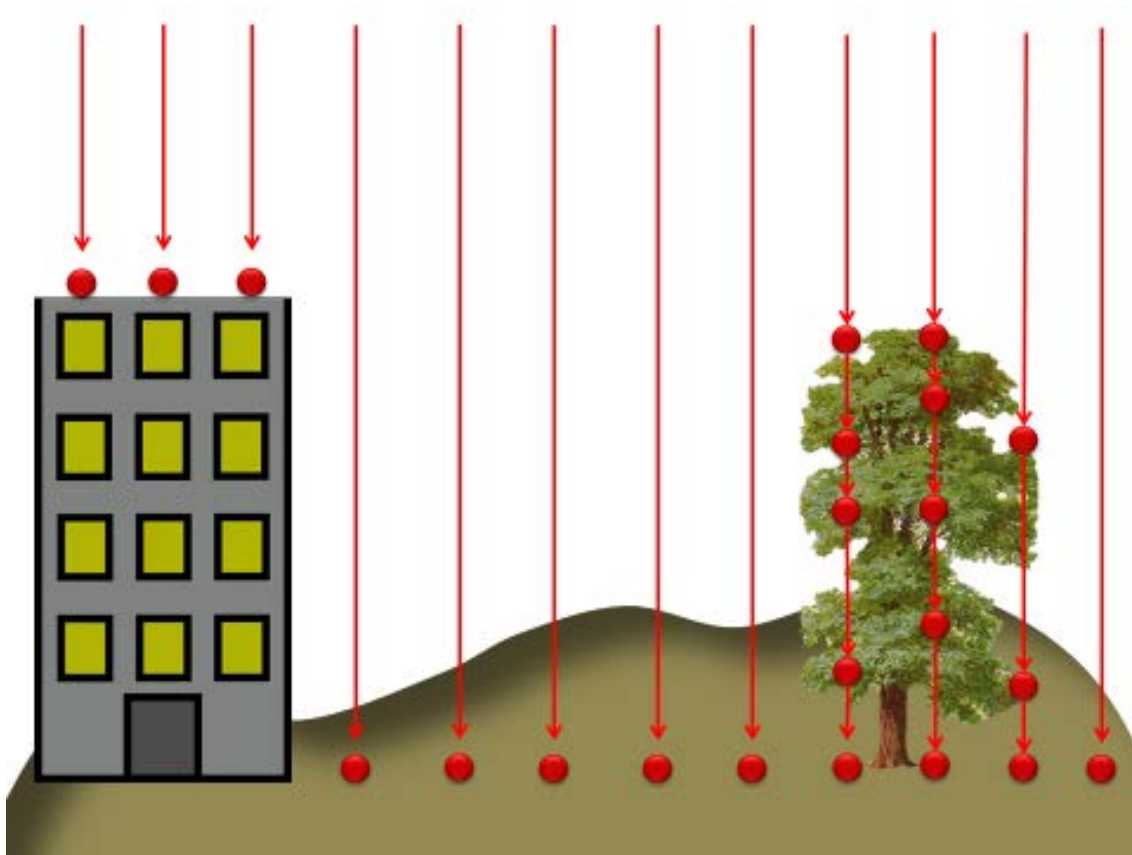
**IMPERVIOUS SURFACE
(Early 2019)**



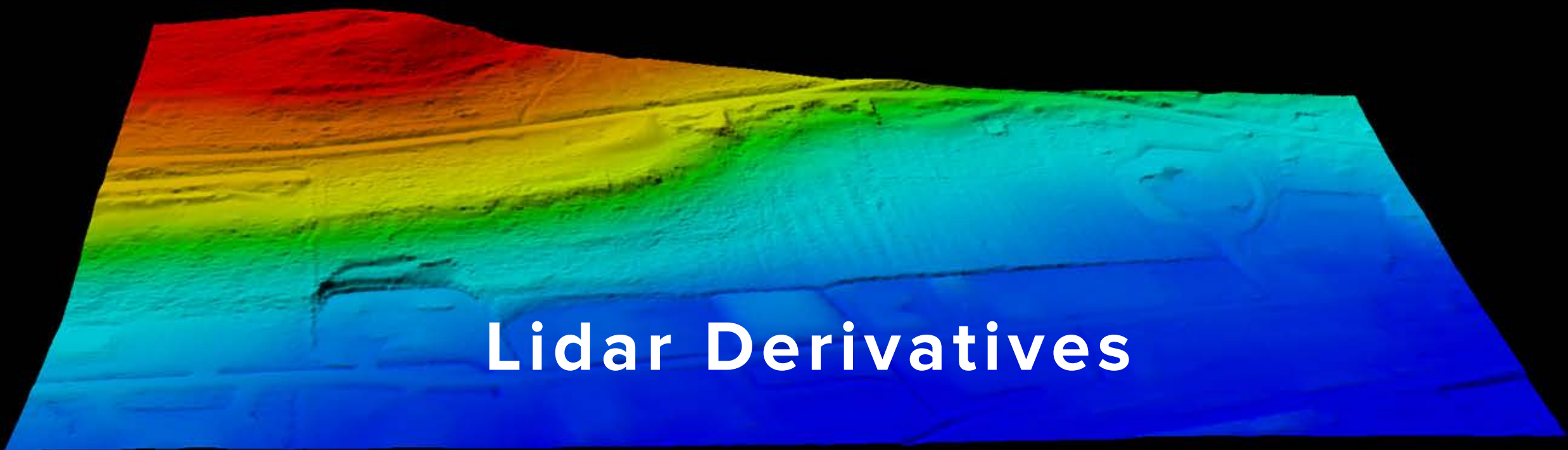
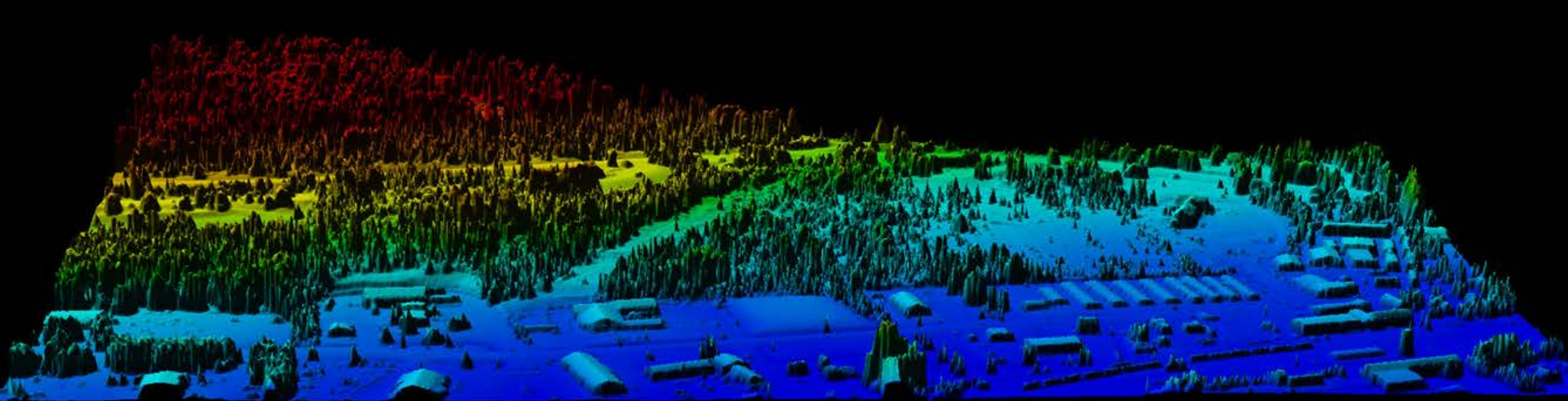
**STATEWIDE
PARCEL DATA
(January 2020)**

Data needs for an impervious surface stormwater fee

Lidar





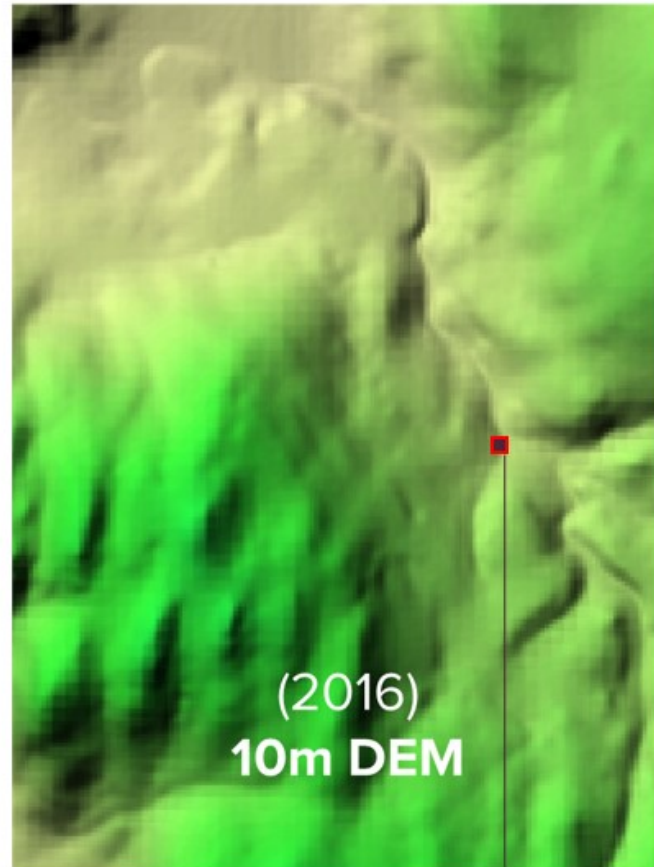


Lidar Derivatives

National Elevation Dataset: Reported vertical accuracy= 8 ft.

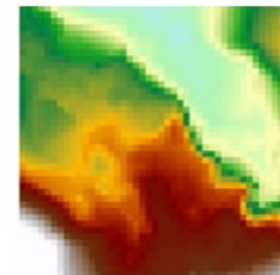
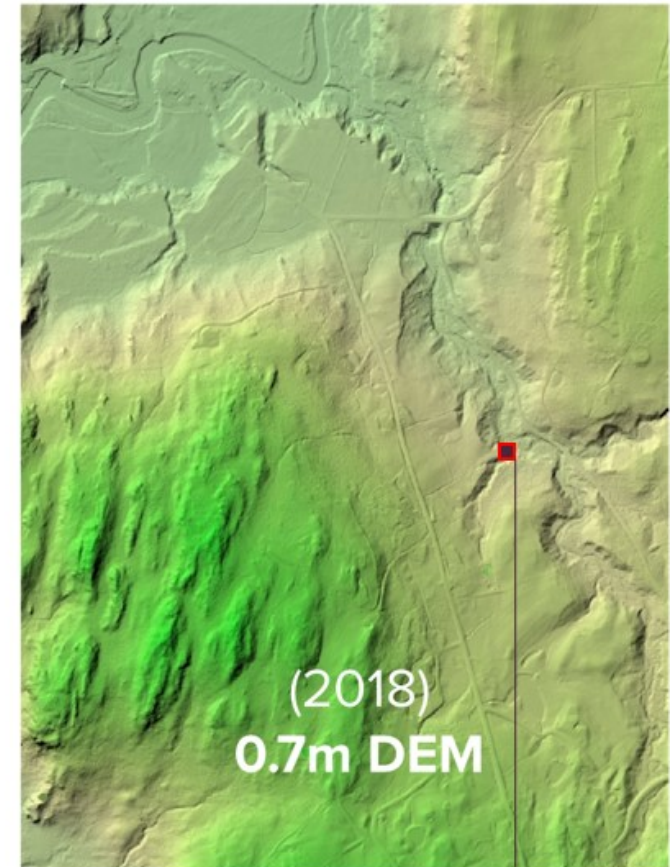


Cell size: 9688 sq ft



Cell size 1078 sq ft

LIDAR: Vertical accuracy= 3.6 in.



Cell size 5.27 sq ft



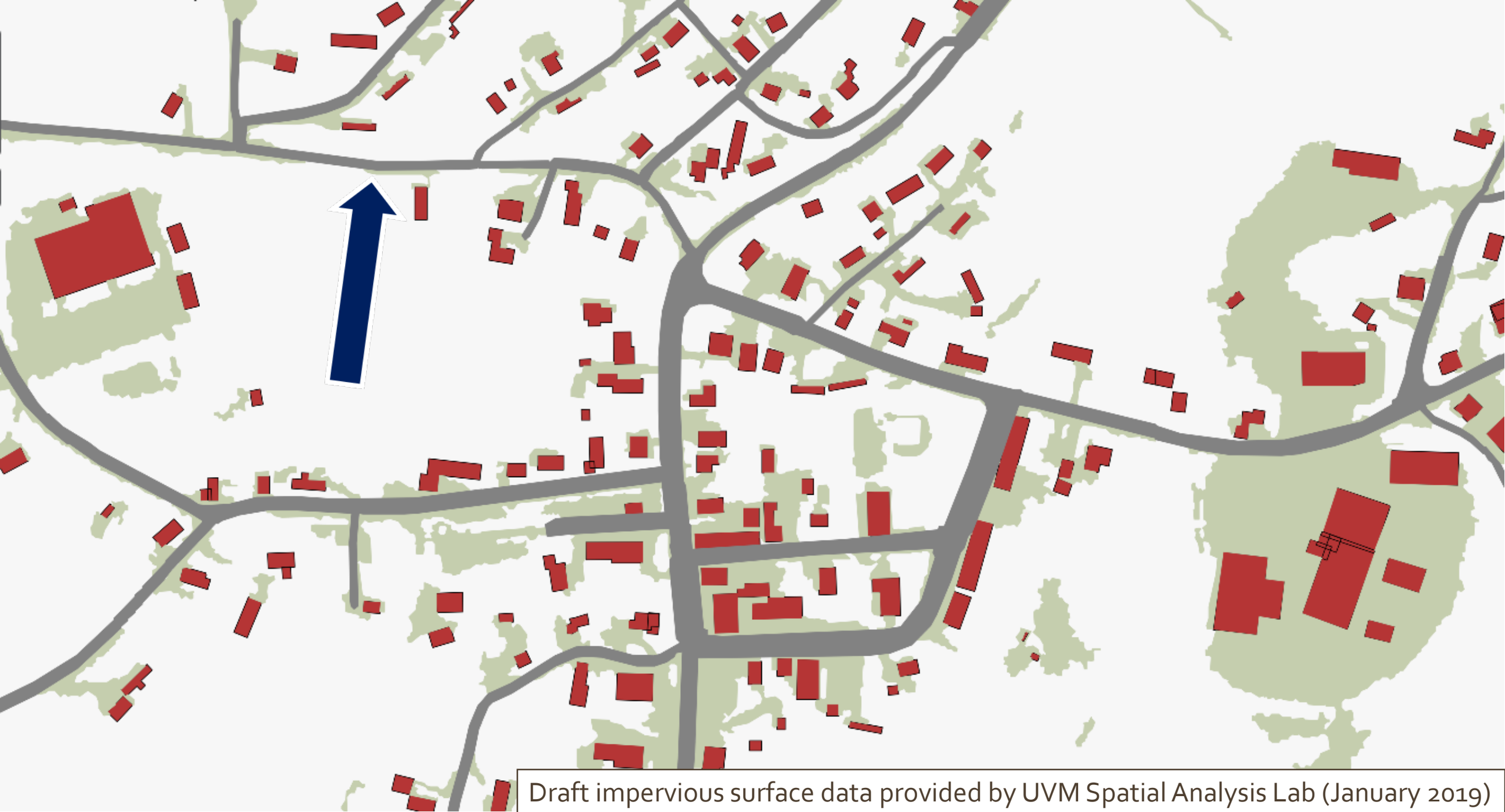




Draft land cover data provided by UVM Spatial Analysis Lab (January 2019)



Draft land cover data provided by UVM Spatial Analysis Lab (January 2019)



Draft impervious surface data provided by UVM Spatial Analysis Lab (January 2019)





Grand List Year

2,017

Owner Name 1

WILLIAMSTOWN
ELEMENTARY
SCHOOL

Owner Name 2

Mailing Address 1

PO BOX 647

Mailing Address 2

Mailing Address City

WILLIAMSTOWN

Mailing Address State

VT

Mailing Address Zip

5679

Property Description

9.50A LAND

Location

9.50A LAND

Category (Real Estate
only)

Miscellaneous
only

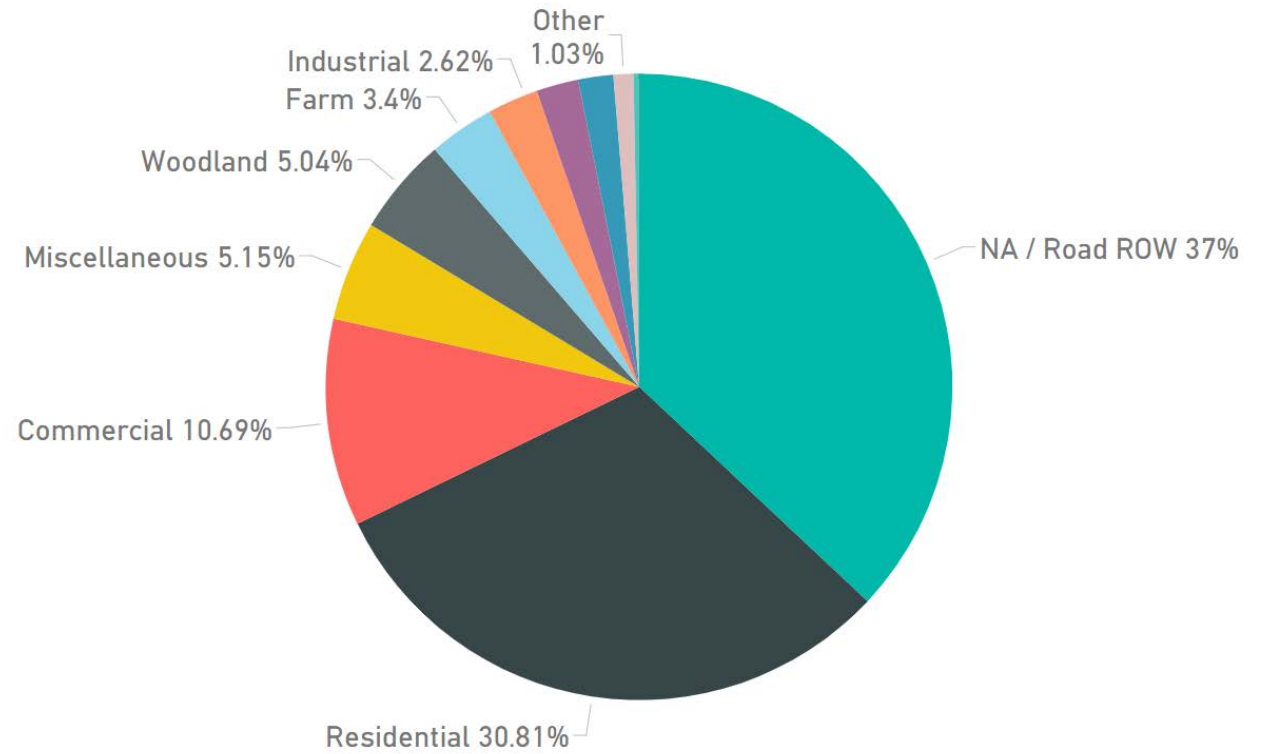
[Zoom to](#)

[Get Directions](#)

Impervious Surface

STATUS: 1st Draft Complete

- Estimated 142,236.45 acres
- 14% from buildings, 1% railroad, and 85% from roads and other paved surfaces.
- Initial review completed and UVM Spatial Analysis Lab reprocessing based on feedback.
- Next version expected March 2019



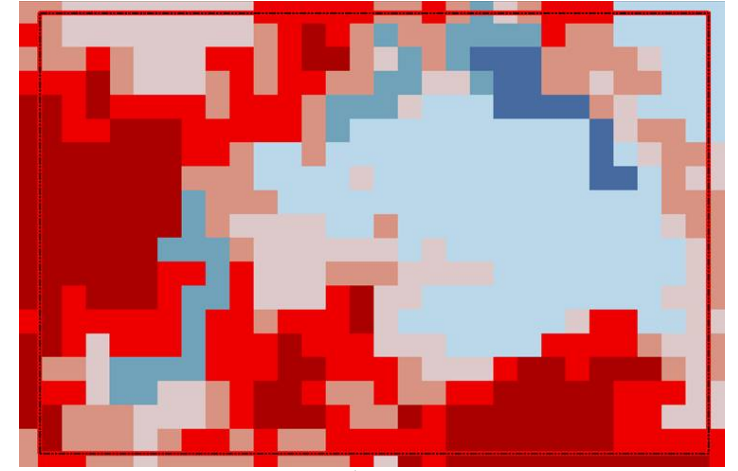
Source of Impervious Surface by Parcel as Categorized by the 2017 Grand List for 107 Municipalities

Impervious Surface

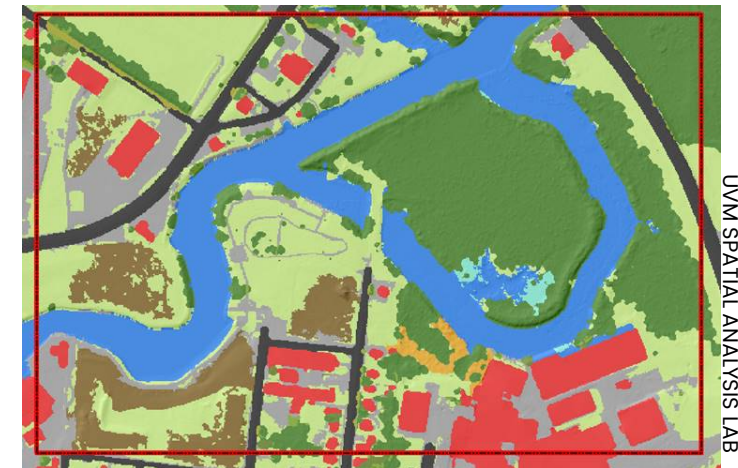
STATUS: 1st Draft Complete

Ongoing Maintenance:

- Frequency and extent of necessary updates to the data needed to successfully administer an impervious surface fee is unknown.
- Need source to update data. Significant percentage of development in Vermont is not subject to any State permit/review, area-wide updates would likely need to come from orthophotography.
- Costs associated with updating the dataset may vary widely and are dependent on a several variables related to program specifics and advancements in technology.



30M Resolution Land Cover



1M Resolution Land Cover

UVM SPATIAL ANALYSIS LAB

Impervious Surface

STATUS: 1st Draft Complete

Considerations:

- The definition of what qualifies as impervious surface could have significant impact on data needs. If the definition differs from mapped land cover classifications, it may be challenging if not impossible in any economical way to update the data.
- A process for updating and/or appealing any measurements must be clearly defined.



Statehouse



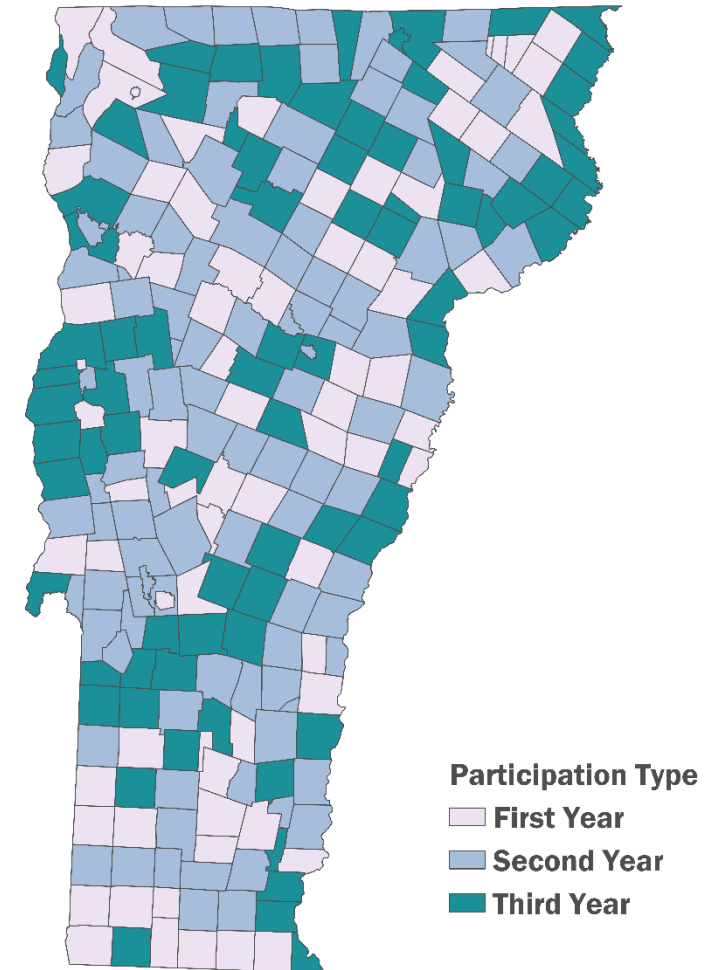
National Life Campus

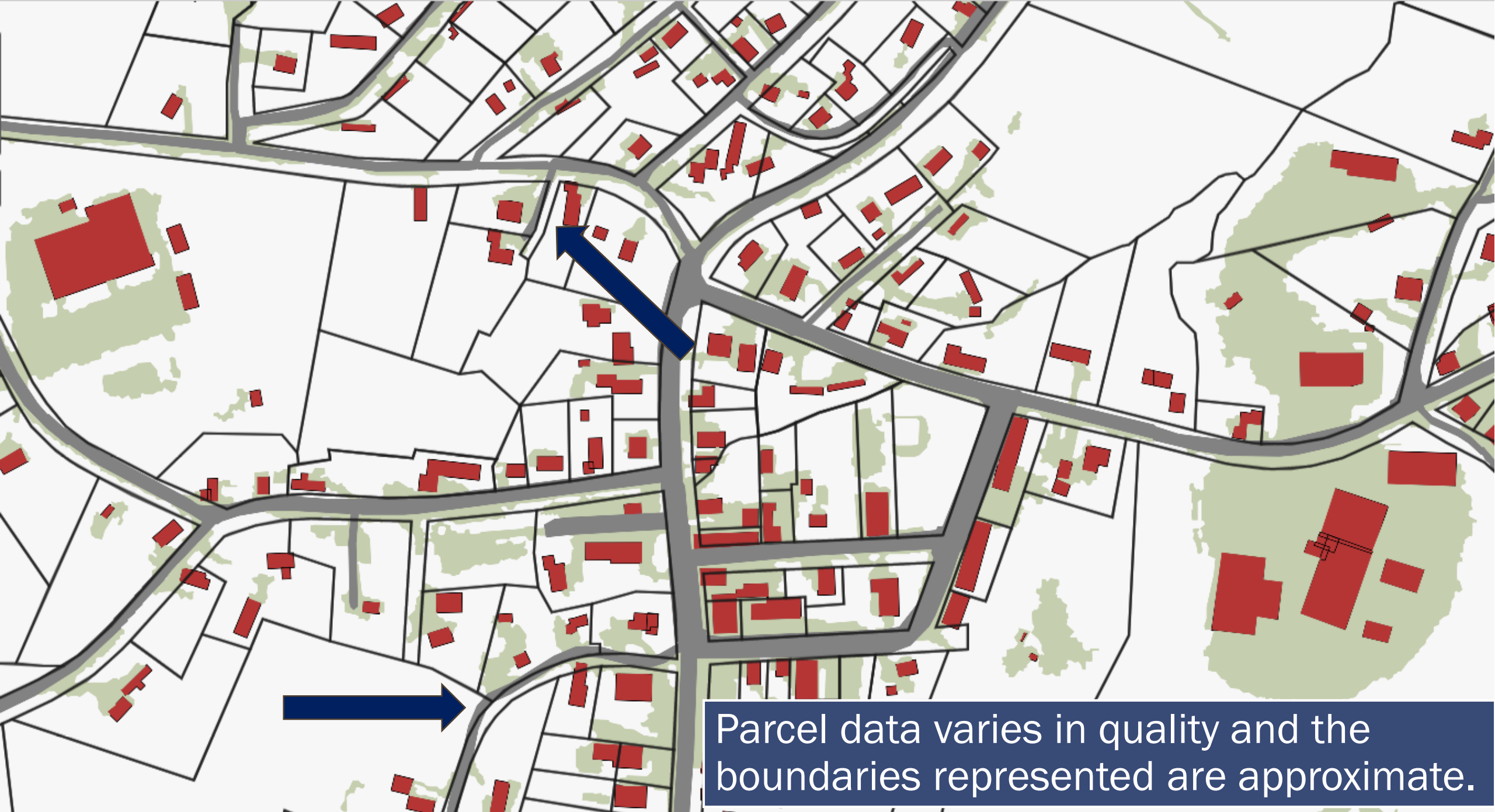
Statewide Parcel Data

STATEWIDE COVERAGE GOAL: End of 2019

Ongoing Maintenance:

- Many municipalities currently do not update their parcel data on a regular basis.
- Information required to update data is typically only available in a paper format in the municipal land records.
- VCGI is working with State Parcel Advisory board to develop maintenance program to keep up to date.

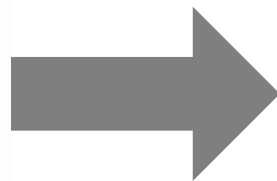






9,616 mi²

Land Area



853 mi² ???

Land area of Vermont not captured in Grand List.

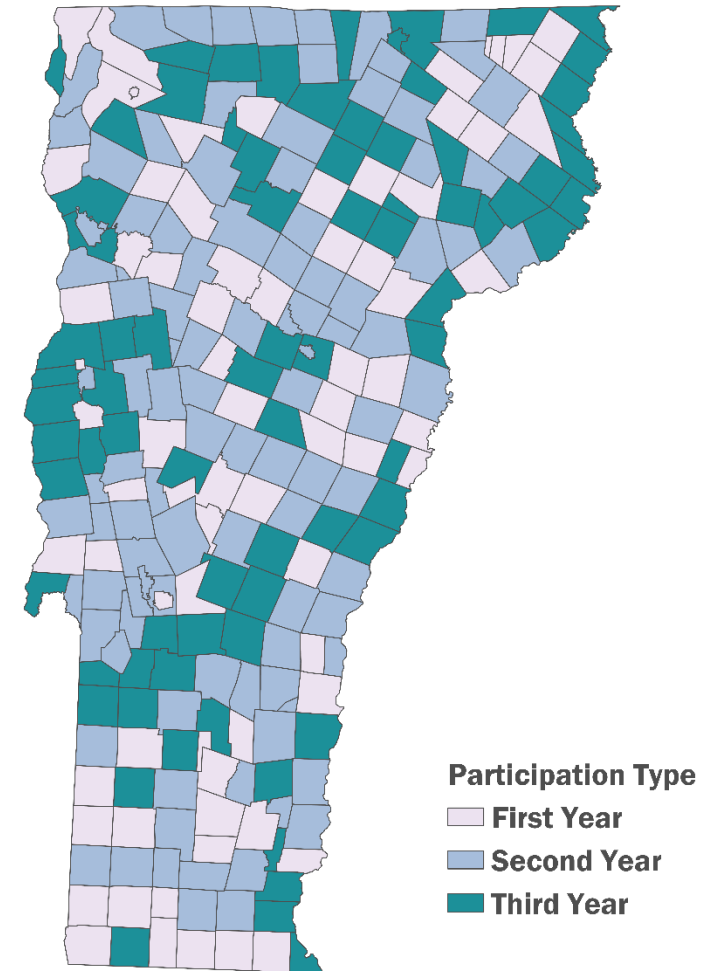
Land Area

Statewide Parcel Data

STATEWIDE COVERAGE GOAL: End of 2019

Considerations:

- Parcel data will vary in quality and the boundaries represented are approximate.
- Differences in how municipalities maintain their grand lists may create challenges in consistently assigning an impervious surface value to certain kinds of properties, such as 'unlanded parcels' and common lands.
- The definition of a parcel, "all contiguous land in the same ownership, together with all improvements thereon," is problematic when certain span numbers become 'inactive' and not reflected on the grand list.



QUESTIONS?

john.e.adams@vermont.gov