

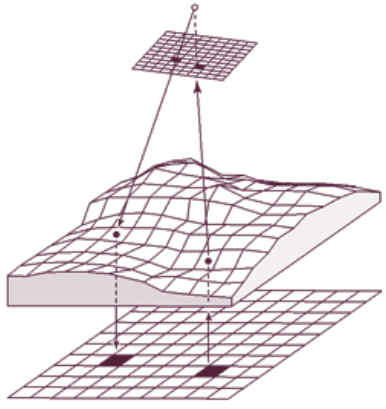
# Data Needs Related to Impervious Surface / Parcel Fees

HOUSE COMMITTEE ON NATURAL RESOURCES, FISH, AND WILDLIFE

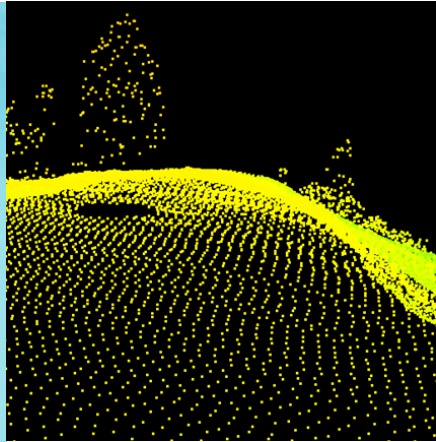
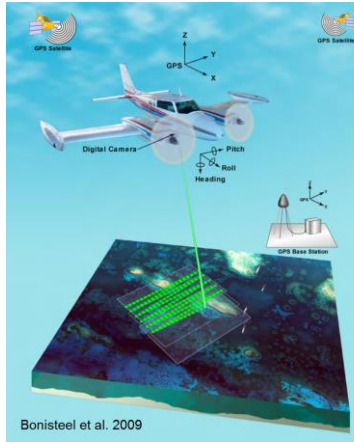
FEBRUARY 14, 2019

JOHN E. ADAMS

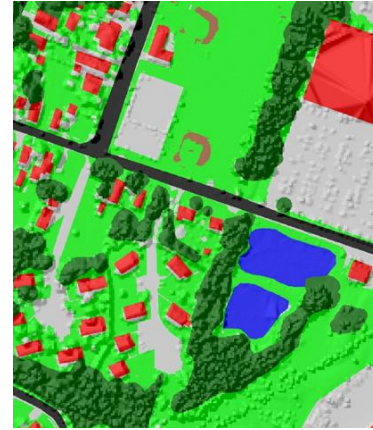
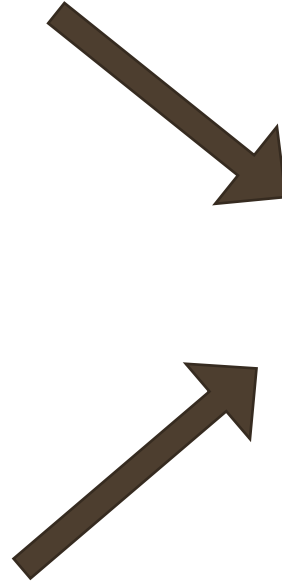




**ORTHOIMAGERY**

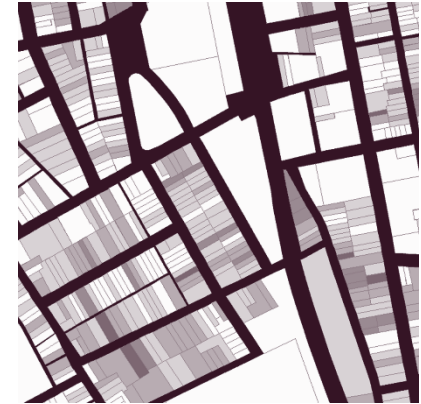


**LIDAR**



Courtesy UVM SAL

**IMPERVIOUS SURFACE  
(Early 2019)**

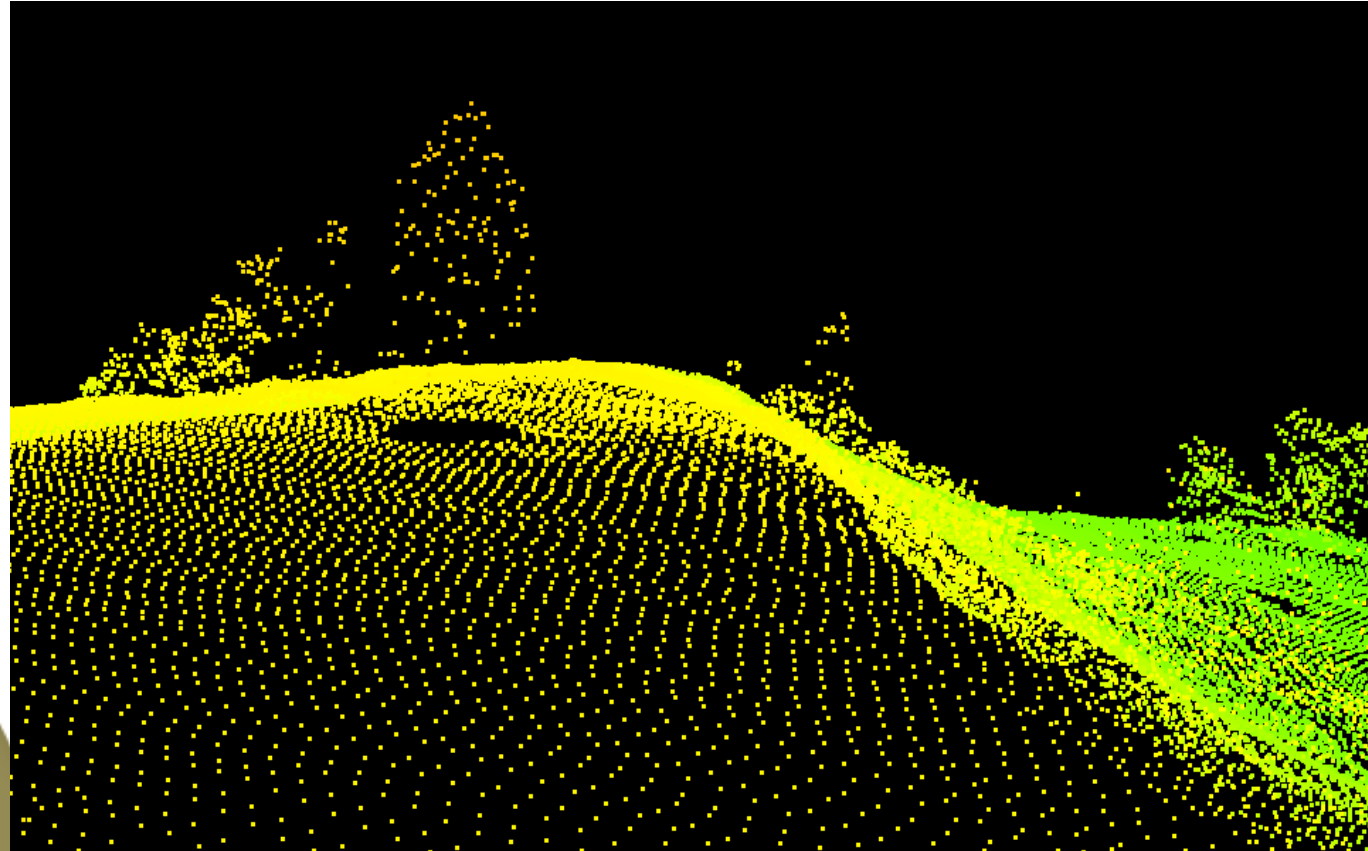
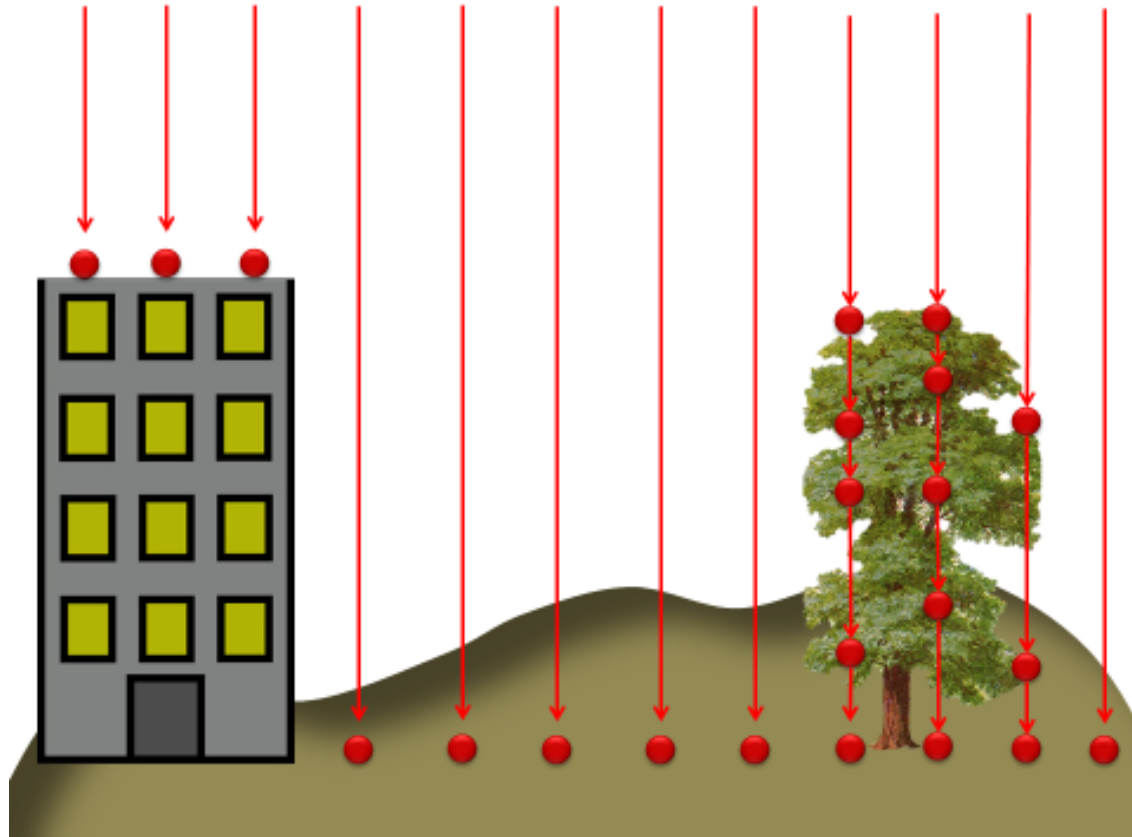


**STATEWIDE  
PARCEL DATA  
(January 2020)**

Data needs for an impervious surface stormwater fee



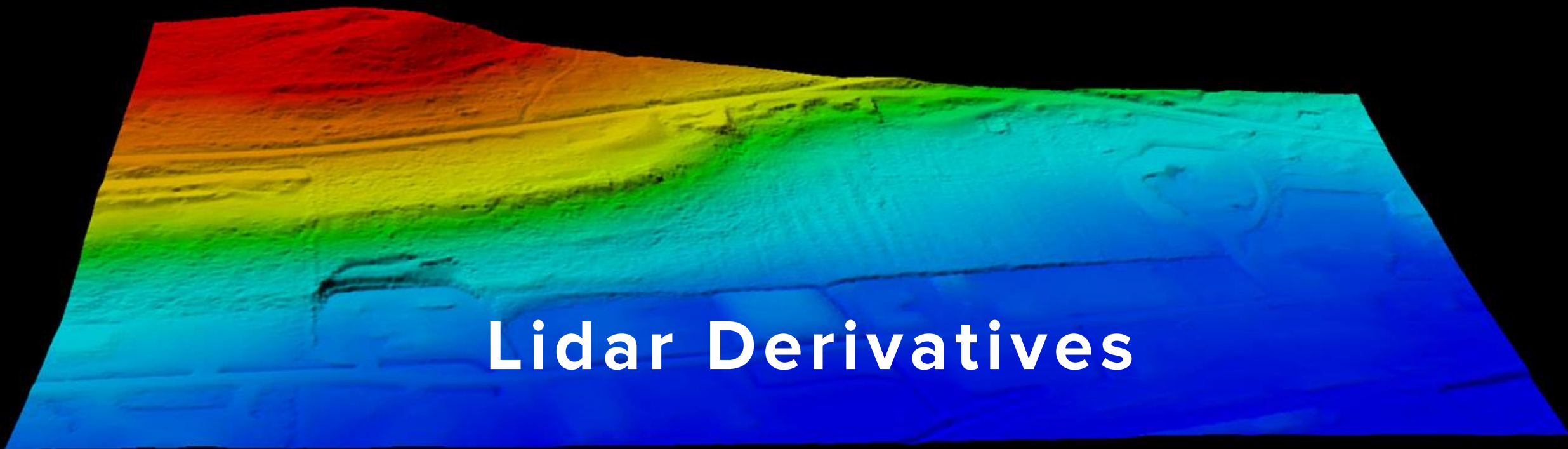
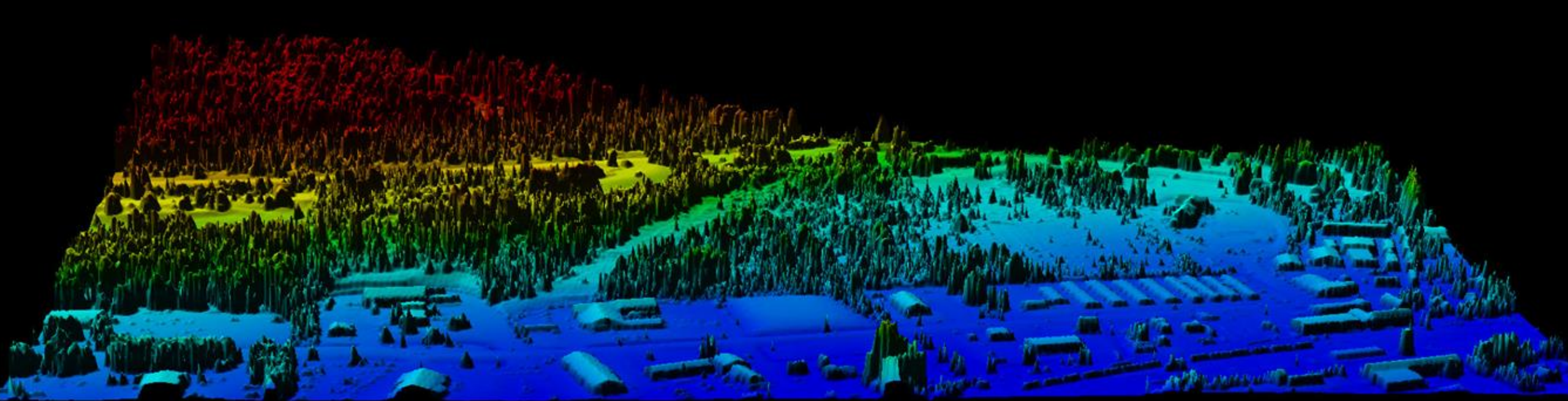
# Lidar











**Lidar Derivatives**

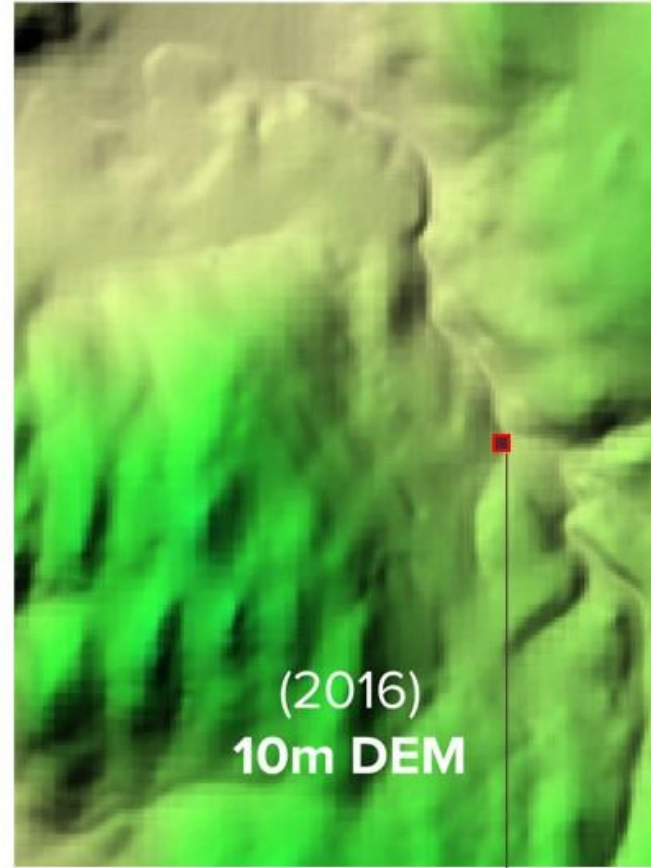


**National Elevation Dataset:** Reported vertical accuracy= 8 ft.

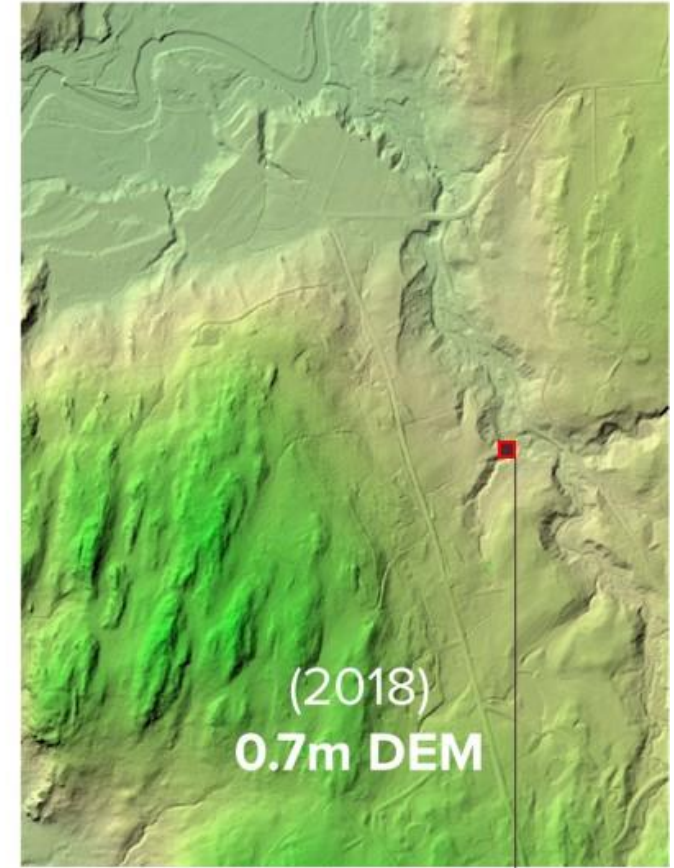
**LIDAR:** Vertical accuracy= 3.6 in.



Cell size: 9688 sq ft

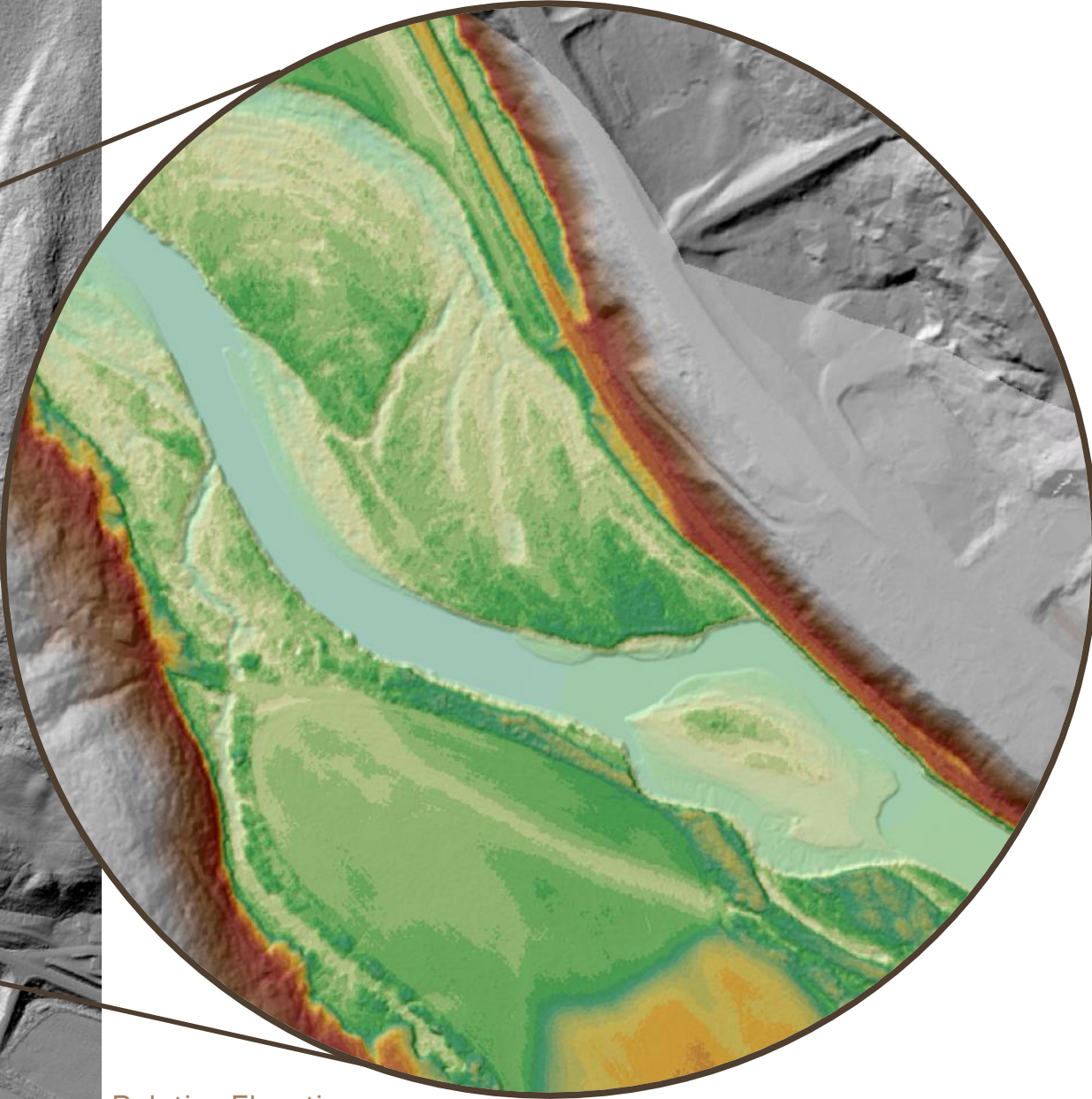
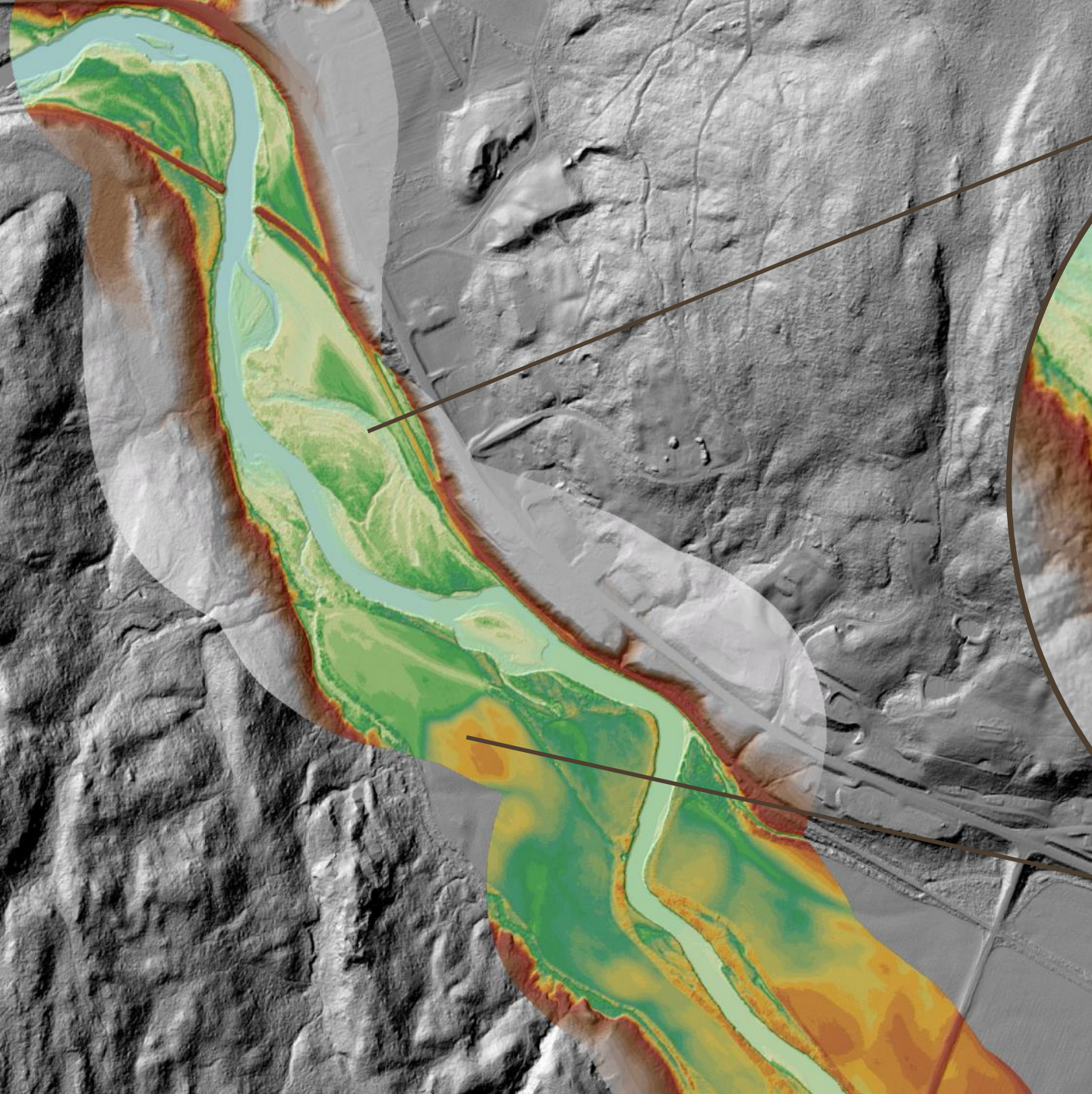


Cell size 1078 sq ft



Cell size 5.27 sq ft





Relative Elevation  
Model - Hydrological  
Assessment

























A map showing a residential area with several buildings highlighted in red. A popup window is overlaid on the map, displaying property information for a specific location. The popup window has a title bar with a close button (X) and a maximize button (square). The text inside the popup is as follows:

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

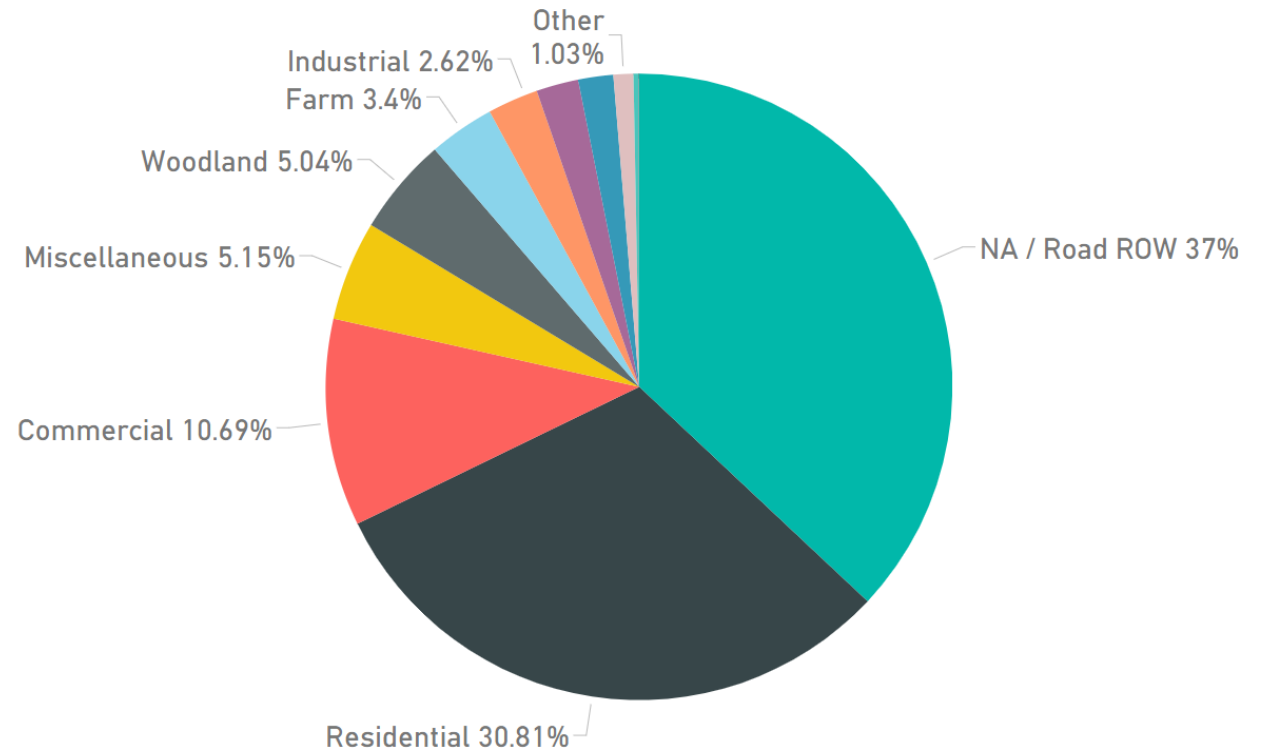
[Zoom to](#) [Get Directions](#)



# Impervious Surface

STATUS: 1<sup>st</sup> 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 by 3/1/19



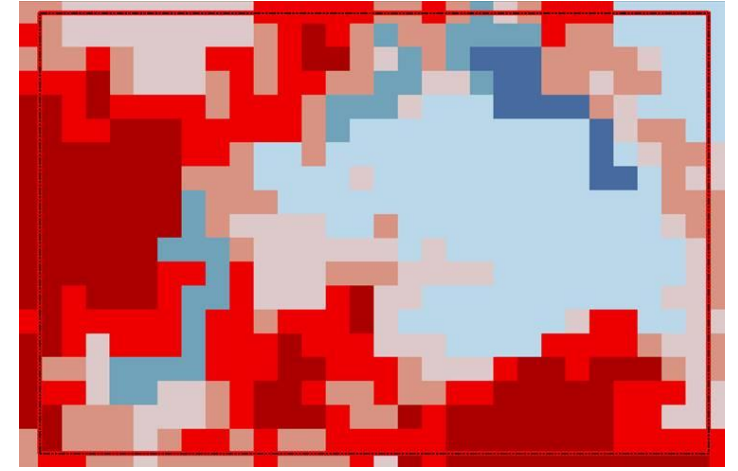
Source of Impervious Surface by Parcel as Categorized by the 2017 Grand List for 107 Municipalities

# Impervious Surface

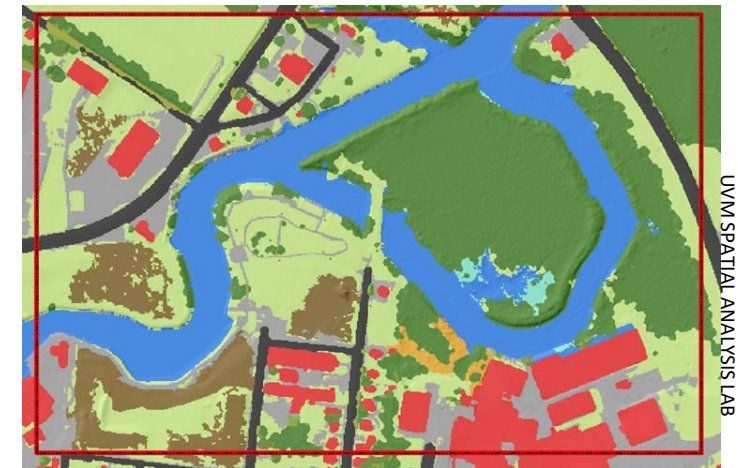
STATUS: 1<sup>st</sup> Draft Complete

## 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, 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: 1<sup>st</sup> 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

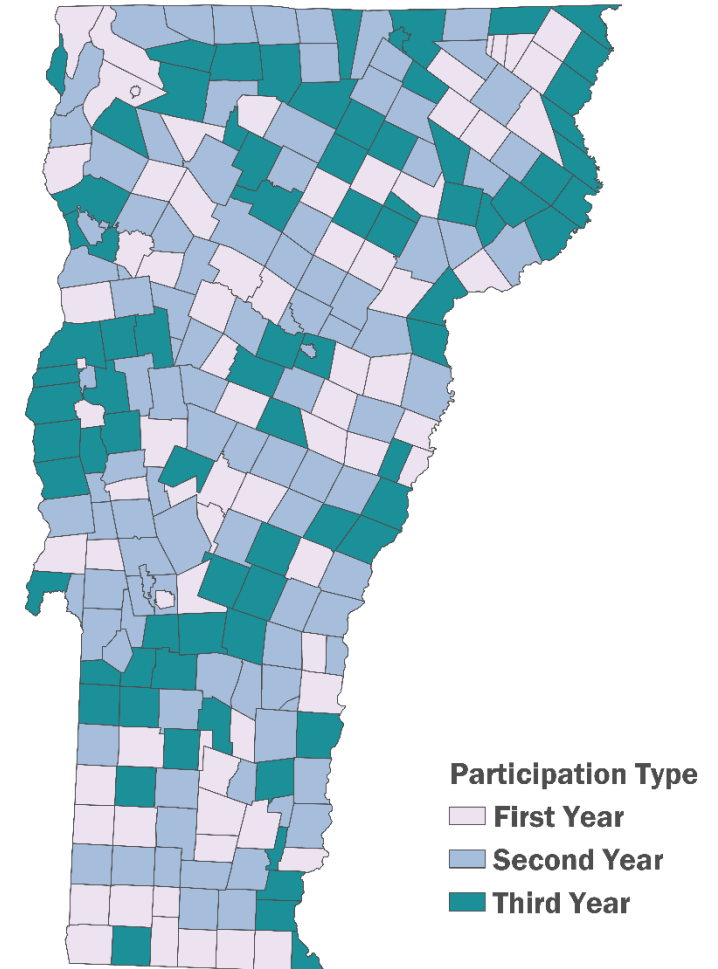


# Statewide Parcel Data

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.

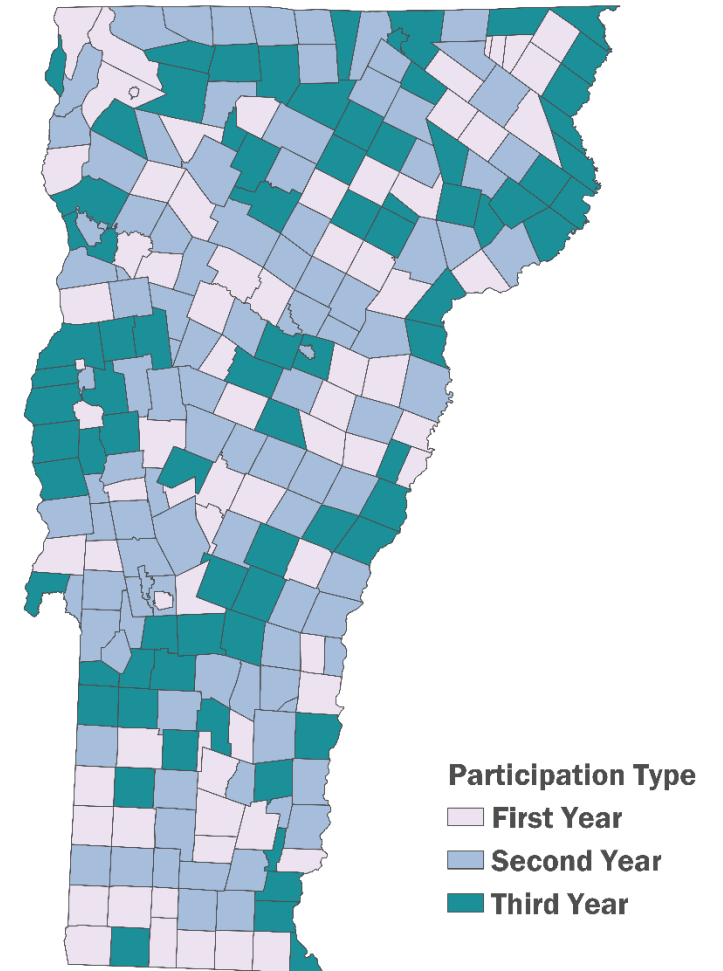


# Statewide Parcel Data

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](mailto:john.e.adams@vermont.gov)**