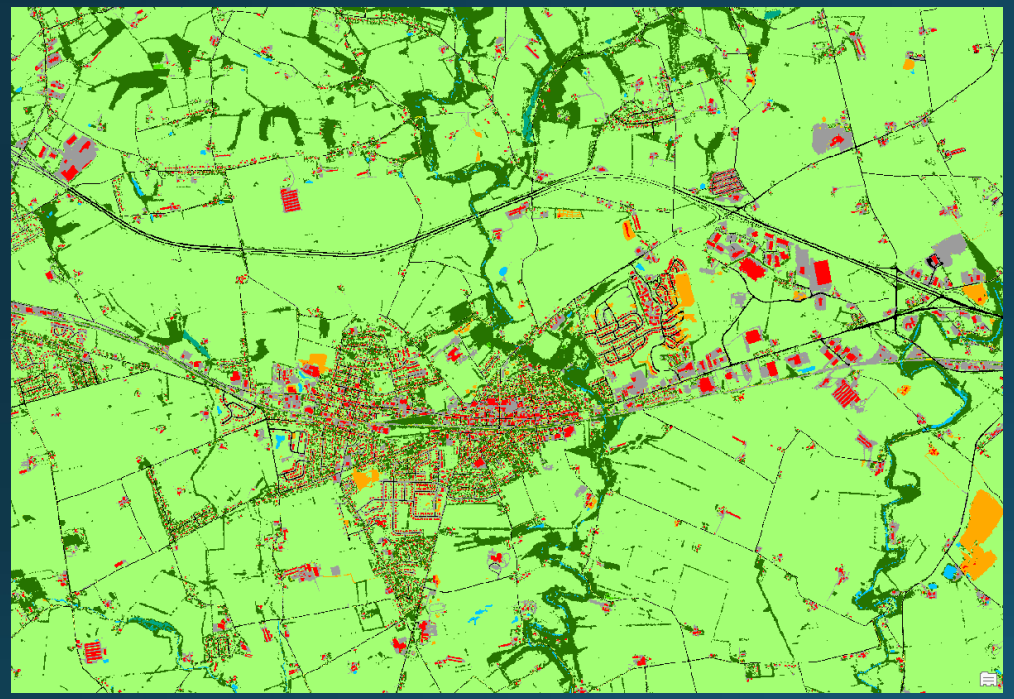
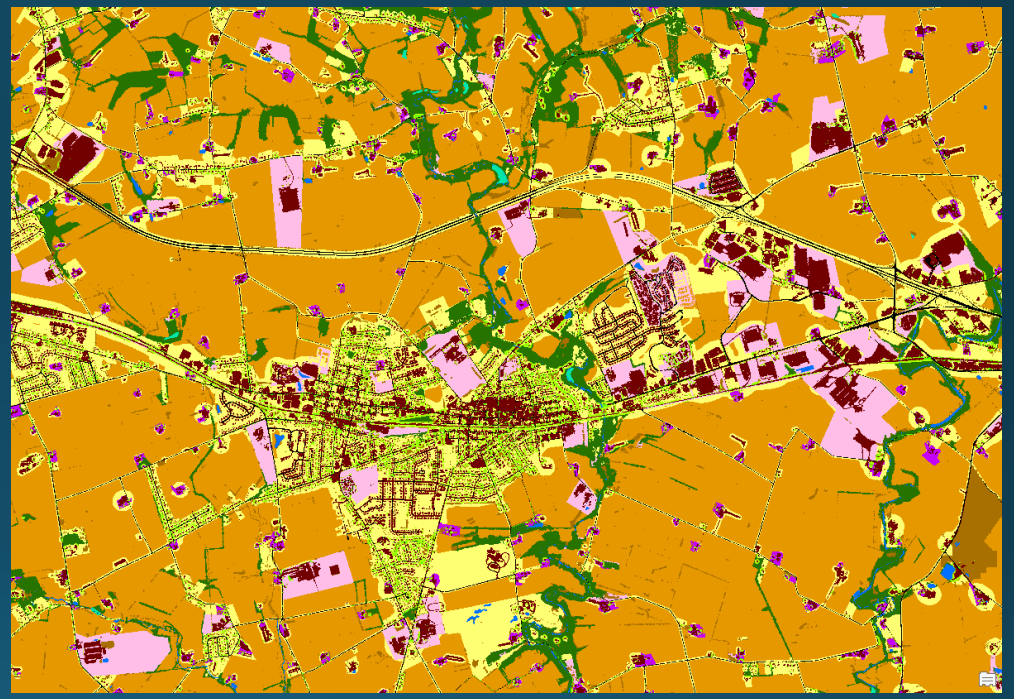
# Objective 1 Land Use Modeling Updates





## July 1, 2020: LUWG

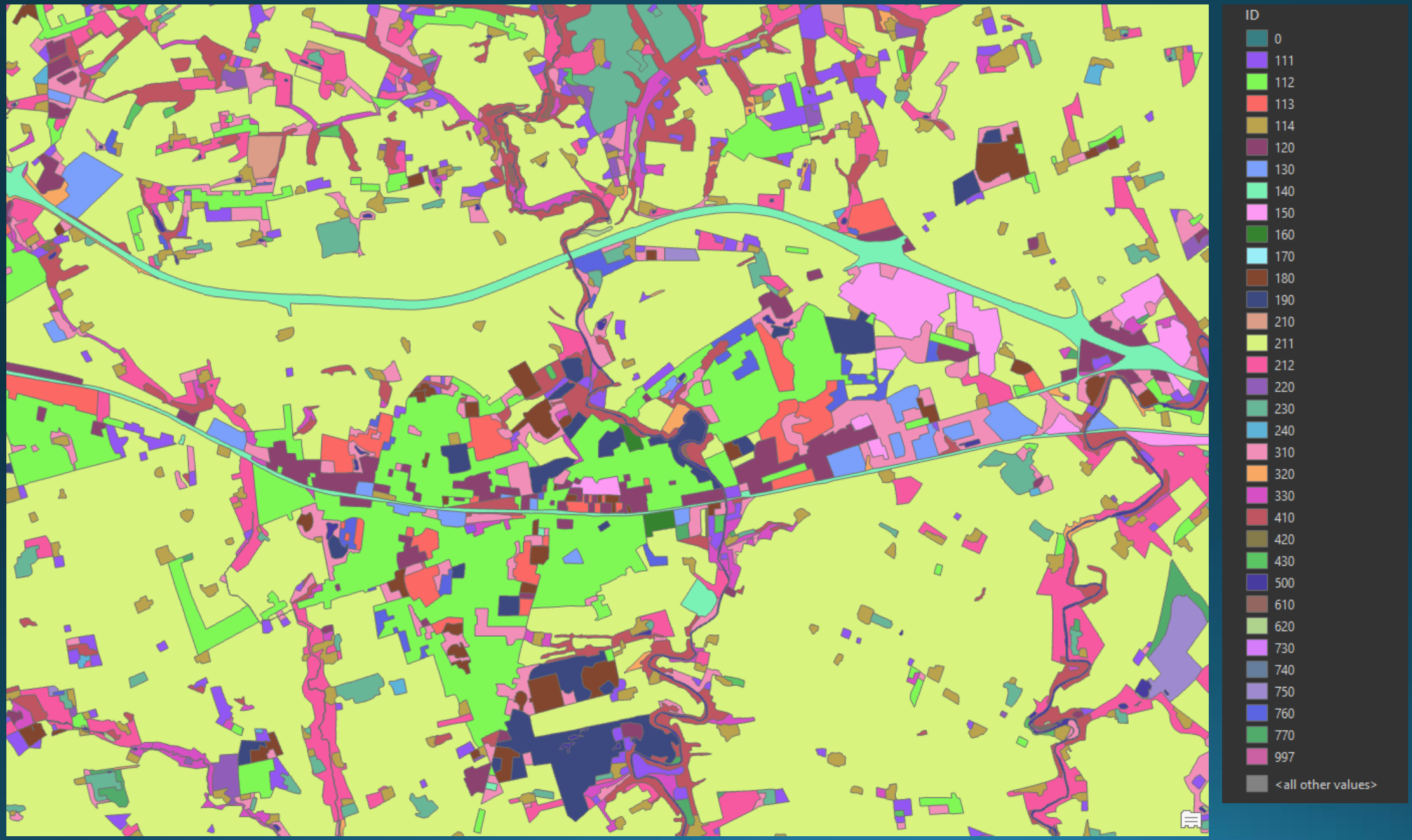
Jacob Czawlytko
jczawlytko@chesapeakeconservancy.org

# Latest Land Use Tasks

- Finish Local Data pre-processing
- Refine Turf model
- Ag/Turf model interaction
- Move from testing to scripting
- Develop scripting for Ag/Turf Model
- Test 14 selected counties
- Report findings to LUWG for logic review

# Local Data Pre-Processing

- Data Types
  - Parcels
  - Zoning
  - Land Use Land Cover
- 10/14 test counties Land Use processed
- Parcel Processing
  - Tabulating LC
  - Using tabulations for area

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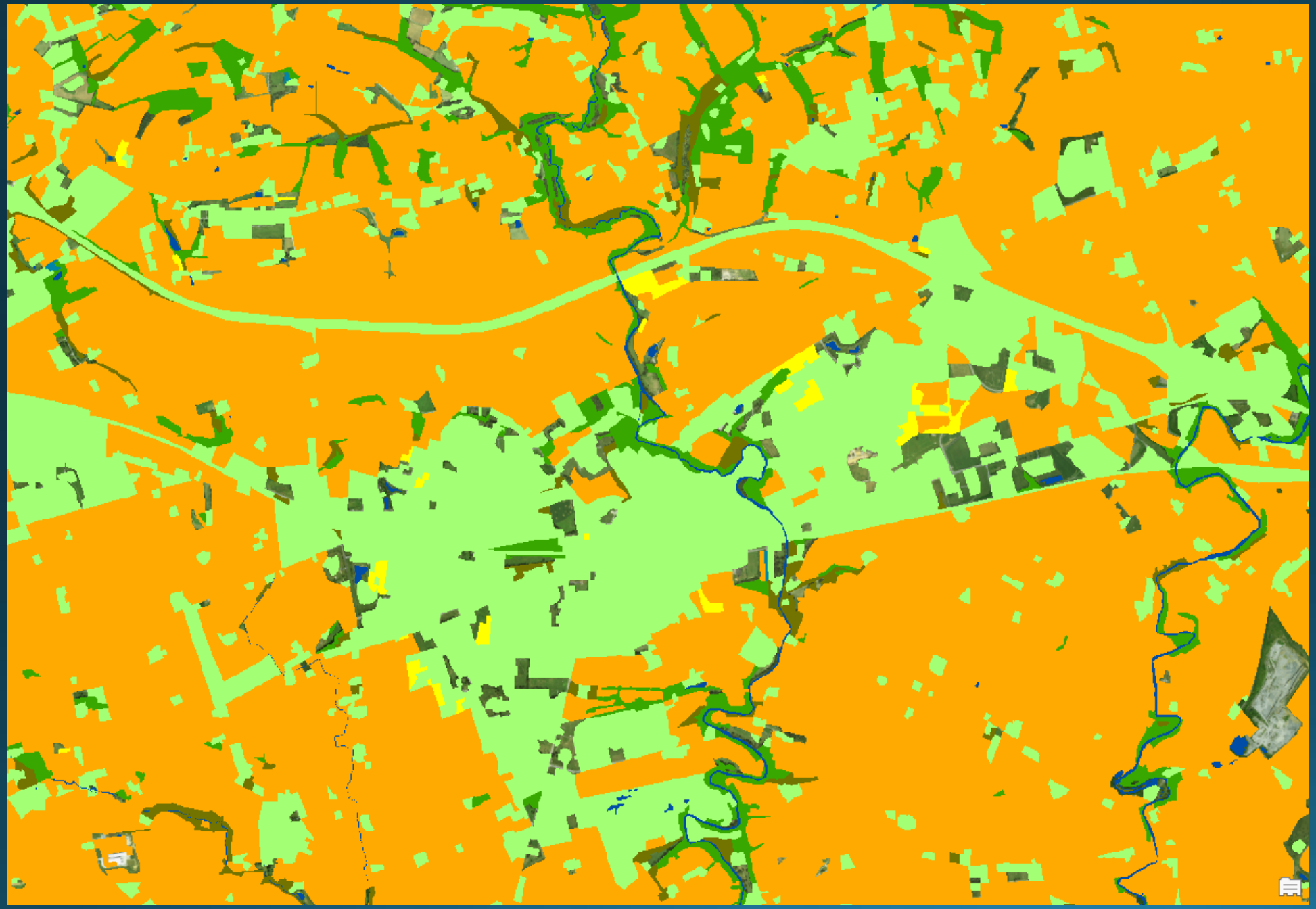


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# TURF: Issues and Proposed Fixes

- 2013/2014 Issues:
  - slightly overestimated due to assessment of road rights-of-way
  - use of unbounded moving focal windows
  - inclusion of turf in fractional land uses
  - over-generalized and misinterpretation of local land use data
- 2017/2018 Proposed Fixes:
  - Utilize parcel boundaries and image segments
  - reconsider width and/or classification of road rights-of-ways
  - conduct more rigorous quality control over local data interpretation

# 2013/2014 methods

- subset parcels
  - < 4046.86$m^2$ (10 acres)
  - >= 93 $m^2$ impervious
- Create turf mask including
  - Developed/ Urban Area Clusters
  - rural turf mask
  - ROW
  - Institutional Lands
- Reclassify all low vegetation segments to turf
- Rasterize

# 2017/2018 turf methods

- subset parcels
  - < 4046.86$m^2$ (10 acres)
  - >= 93 $m^2$ impervious
  - Local data reclassed as turf(LULC or Zoning)
  - Proprietary HERE data
    - land use A and B
- Identify low vegetation image segments intersecting with subset parcels
- Create turf mask


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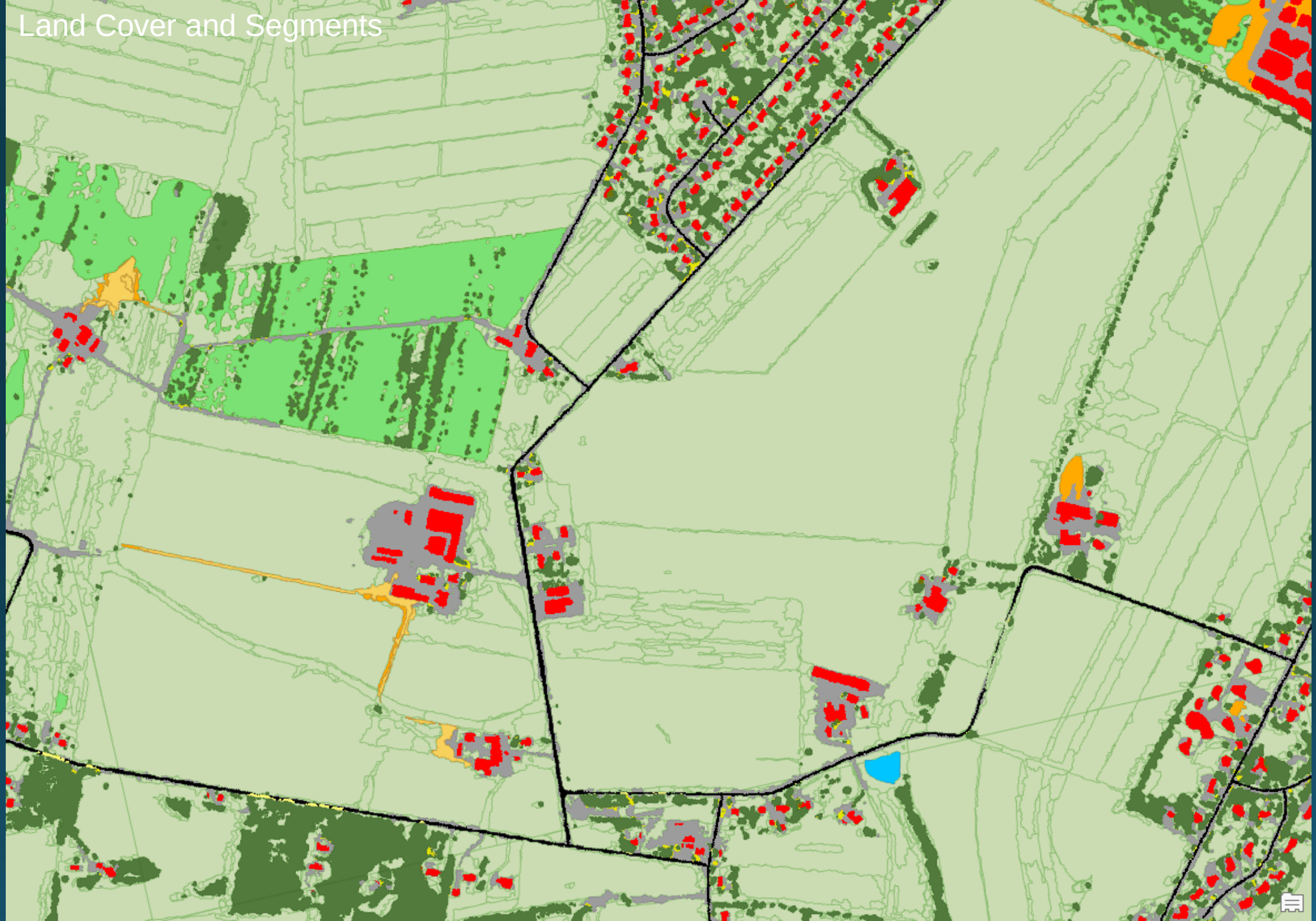
# Land Cover and Segments



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# 2017 NAIP and Segments

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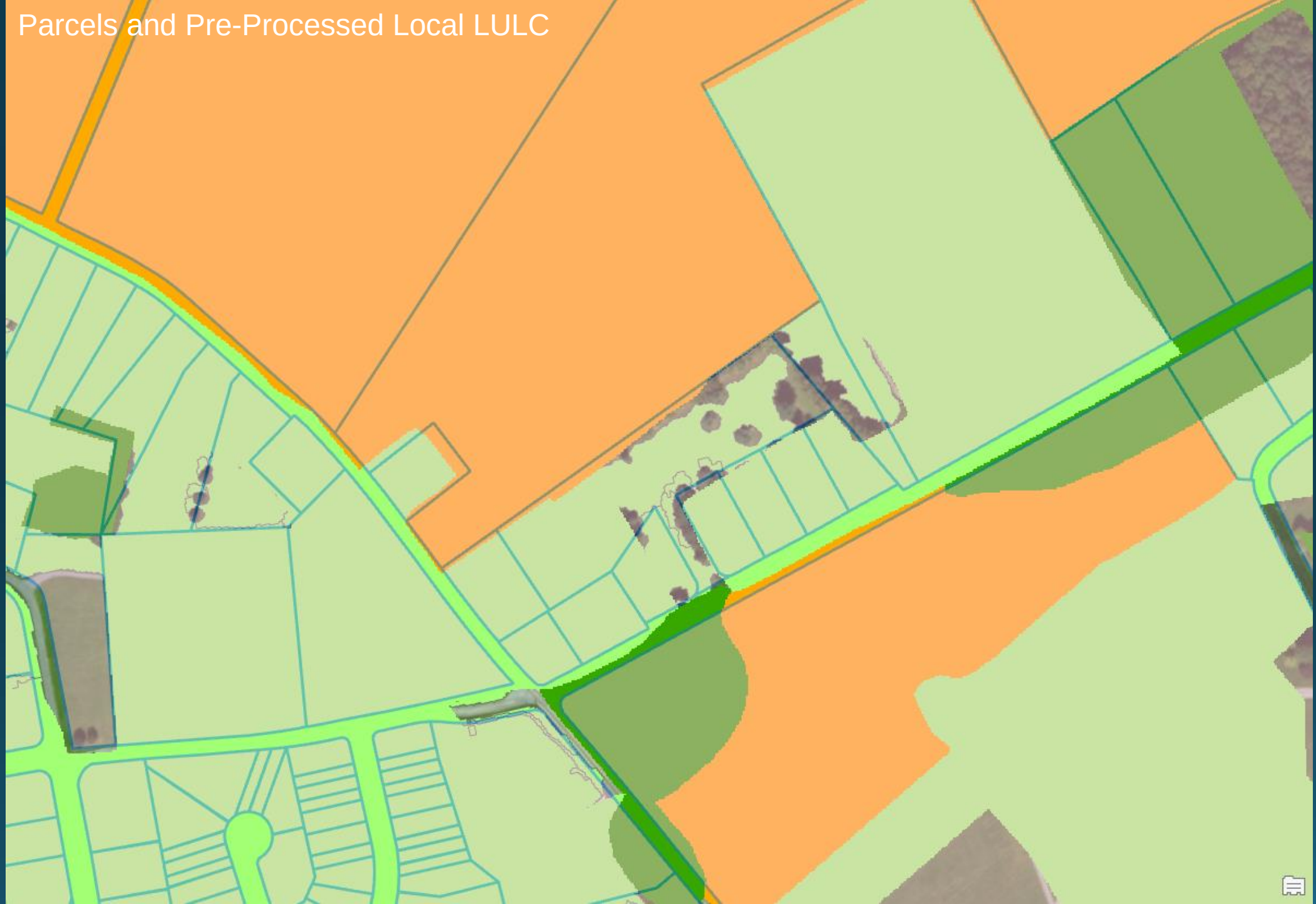
# Parcels and Subset Low Vegetation segments

# Parcels and Pre-Processed Local LULC



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# Parcels and Pre-Processed Local LULC

# Agricultural identification Methods (simplified)

- Cropland Data Layer (CDL)
  - Calculate majority crop classification for ‘15,’16,’17,’18
  - Clean up boundaries
  - Create Ag Mask
  - Identify low vegetation segments intersecting with these cropped fields