



GROUNDPOINT

TECHNOLOGIES, LLC



Doing More with LIDAR

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LOS ANGELES REGION
LAR|@C
imagery acquisition consortium



LIDAR Benefits?



Recent Reports

Iowa Geographic Information Council (IGIC)

- Report by GITA - 2008
- 20 year assessment of GIS implementations
- Average return 24% statewide on all GIS

ESRI- GIS Guide for Elected Officials- 2014

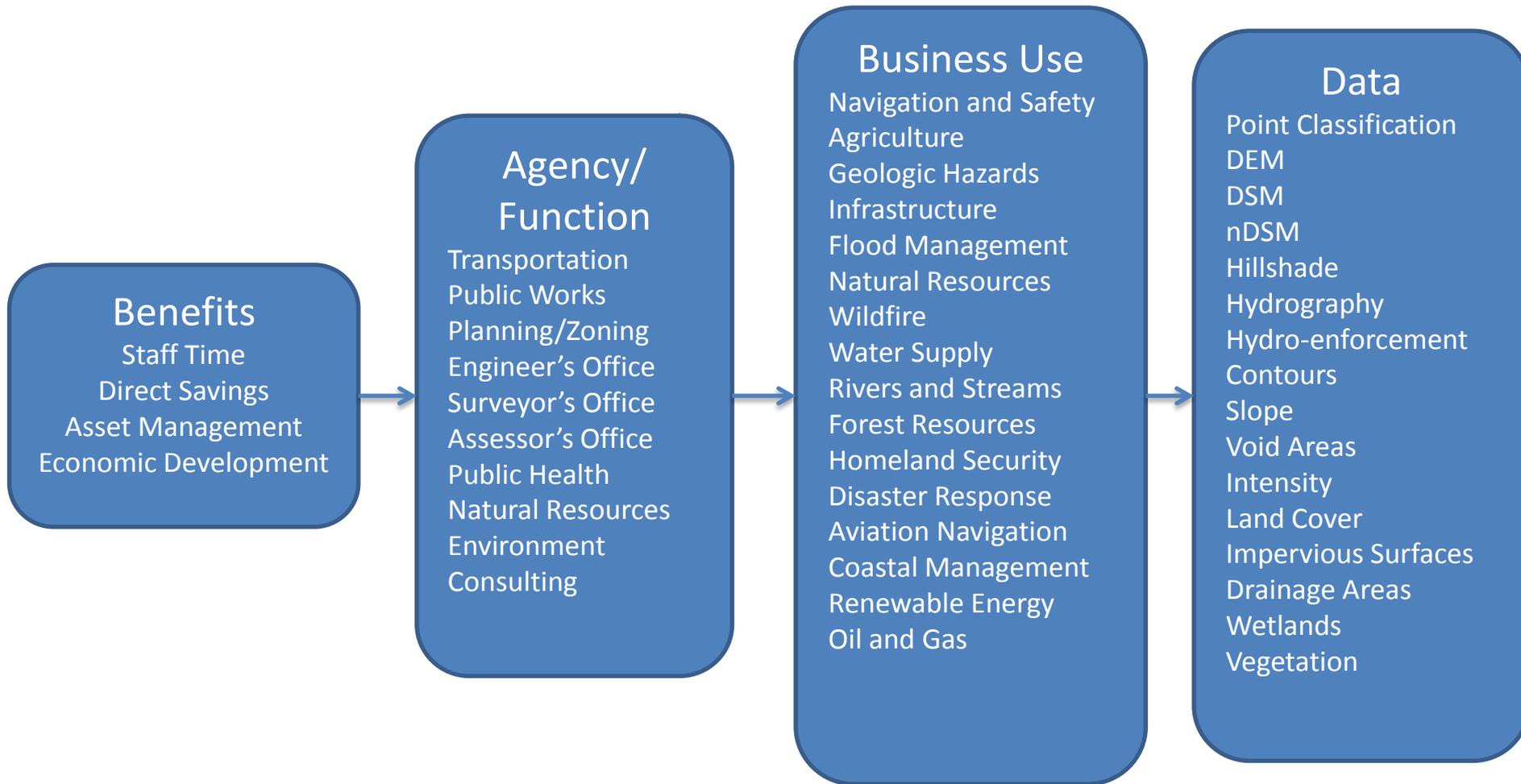
- 4 main application areas for Elevation Data

USGS Report (Dewberry)

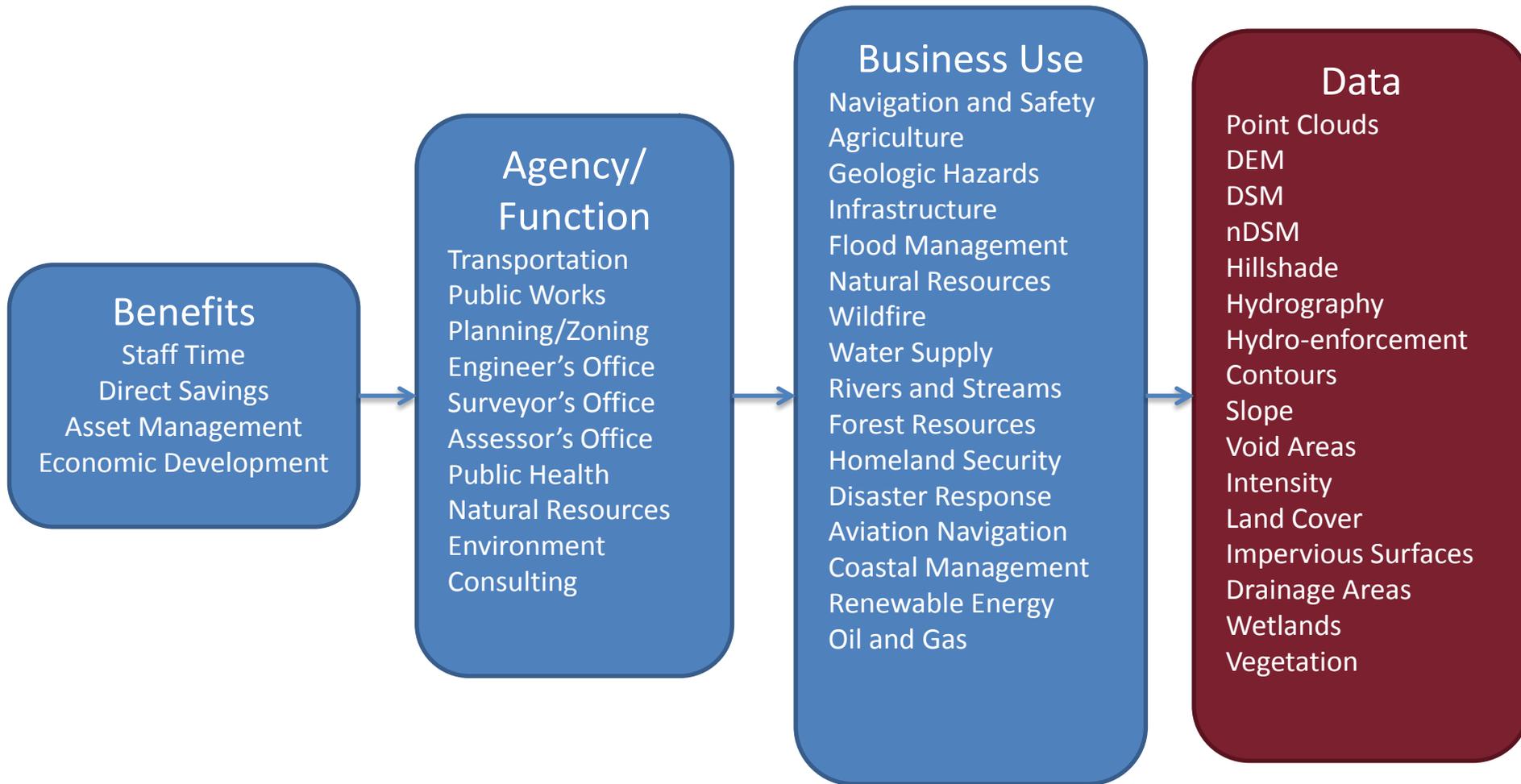
- National Enhanced Elevation Assessment – 2012
- 27 Business Uses for LiDAR
- 5:1 ROI (500%)



Benefits of LiDAR



Benefits of LiDAR



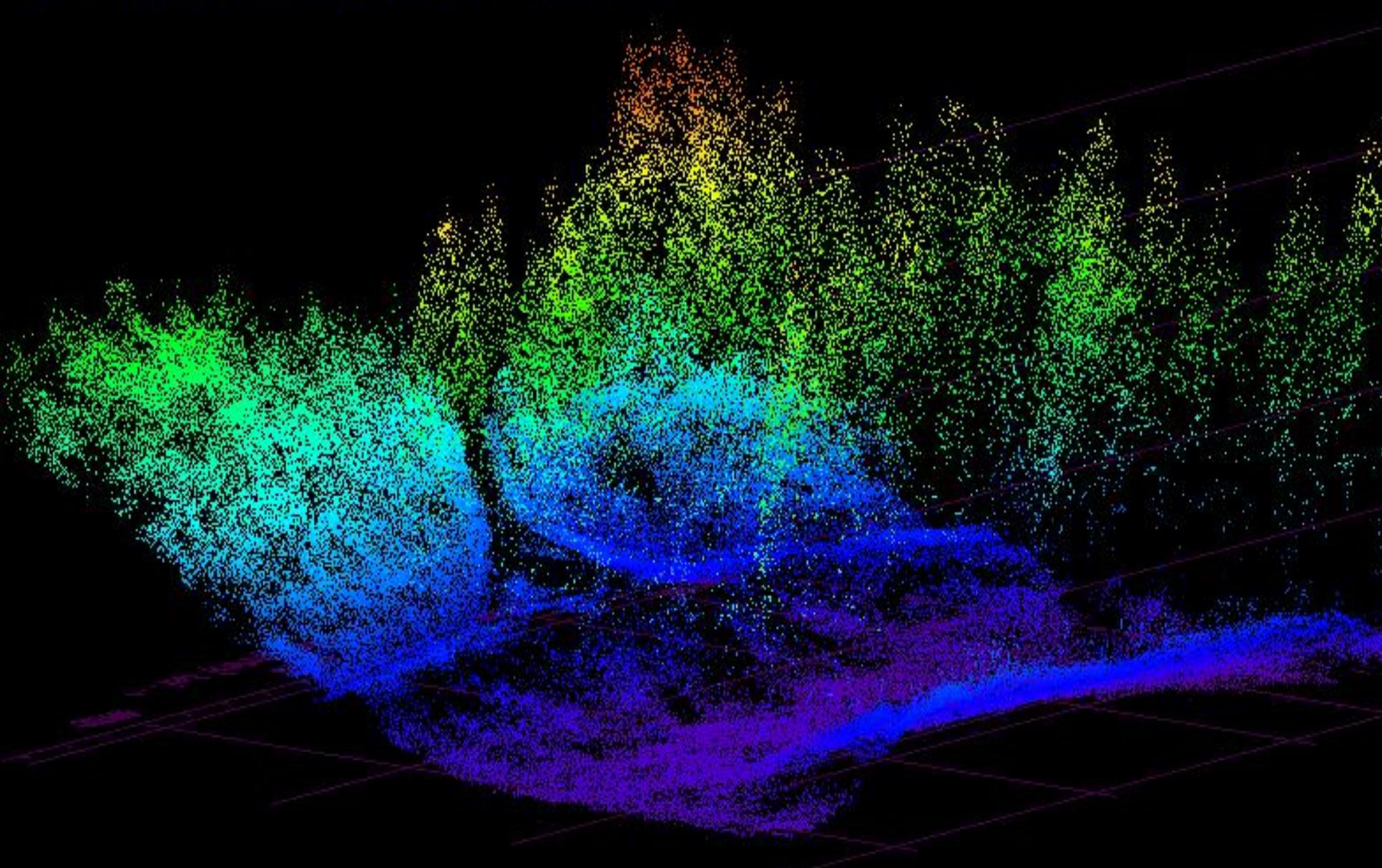


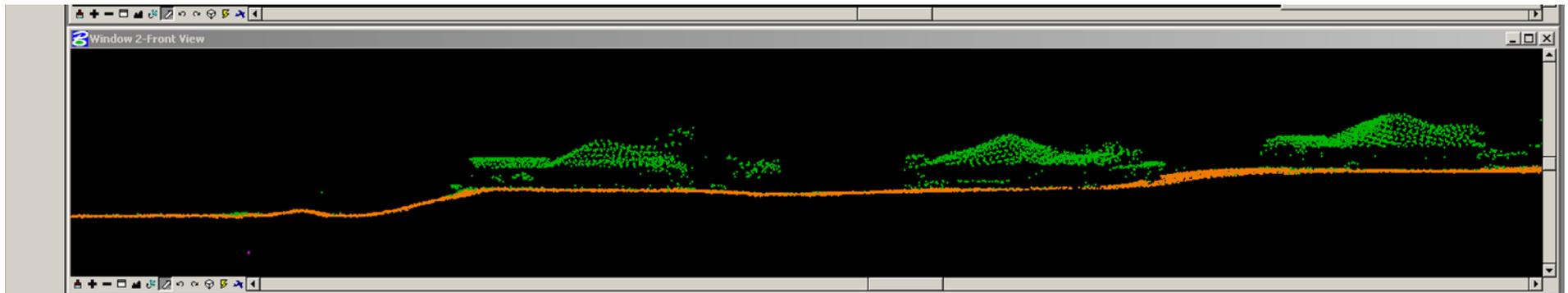
35cm Point Spacing



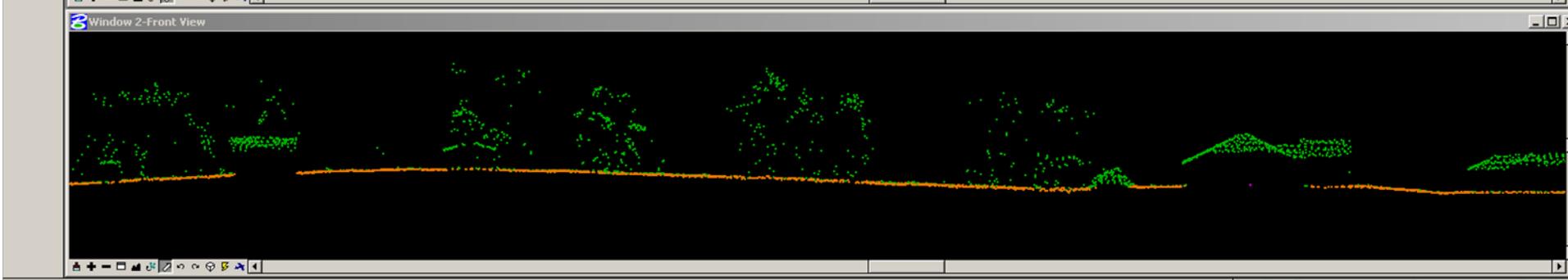


Wash98_Riparian_3a_FL UTM NAD83, X_Angle = 20 Z_Angle = 232 Frame = 1
South--North = 159.99000 [5190295.0-5190455.0] meters. FirstReturns = 113652
West--East = 159.99000 [489075.01-489235.00] meters. LastReturns = 113652
Highest--Lowest = 58.369201 [181.70957-240.07877] meters





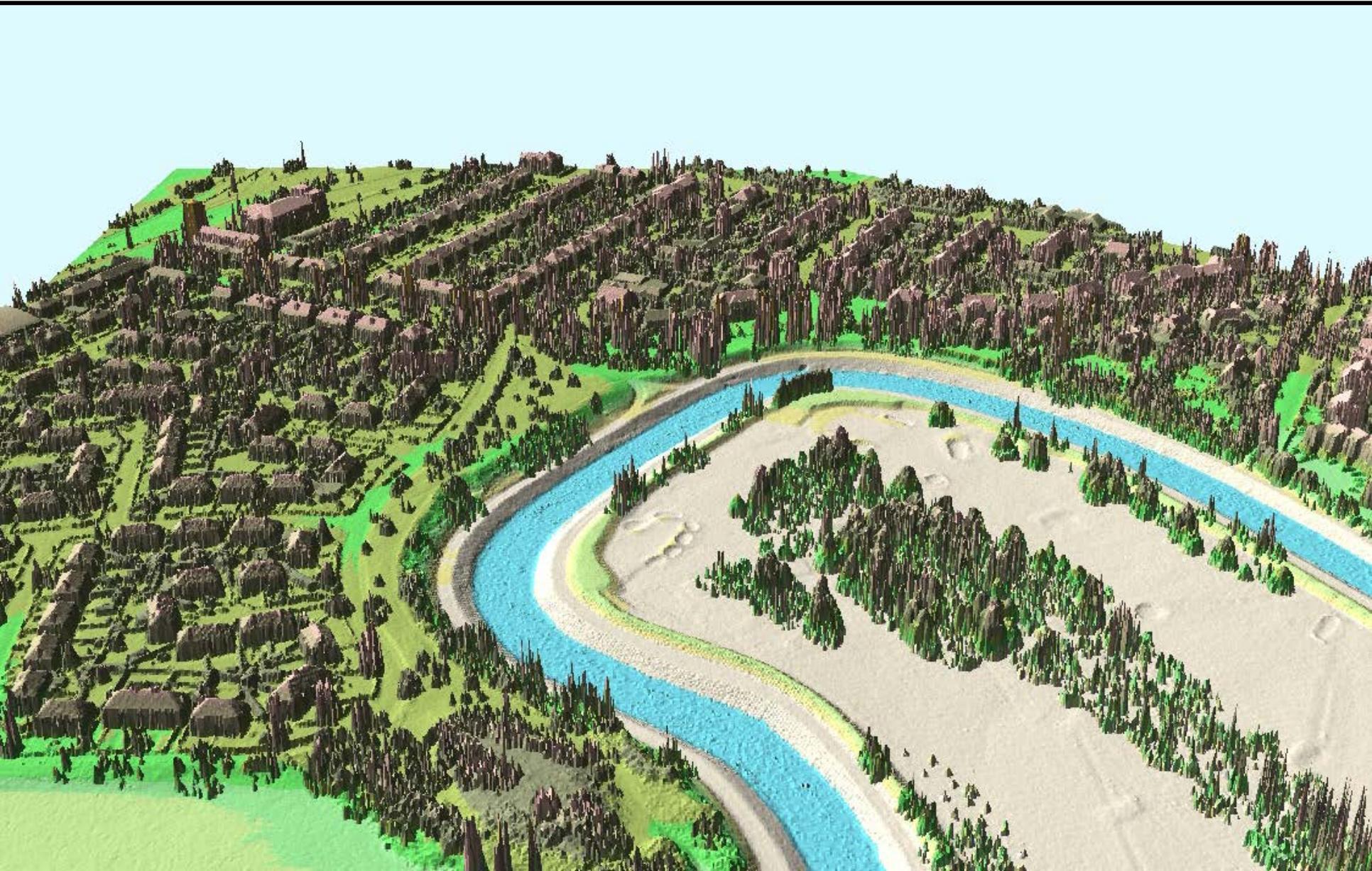
Start | 04657.dgn (3D) - Micr... | firsttrunclassintensity.bmp... | Level = 1 | 10:46 AM



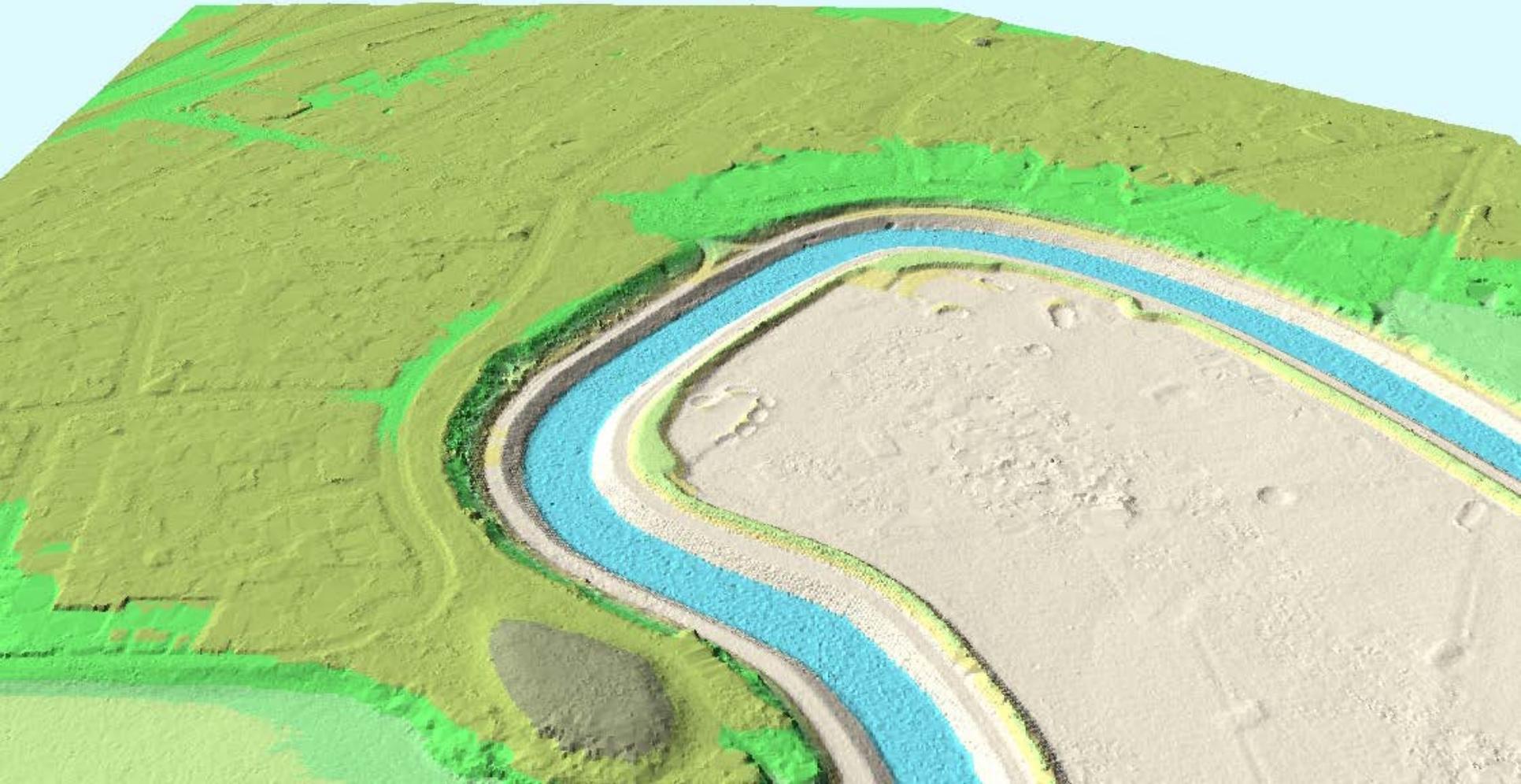
Start | 04657.dgn (3D) - Micr... | niceprofile.bmp - Paint | Level = 1 | 10:55 AM



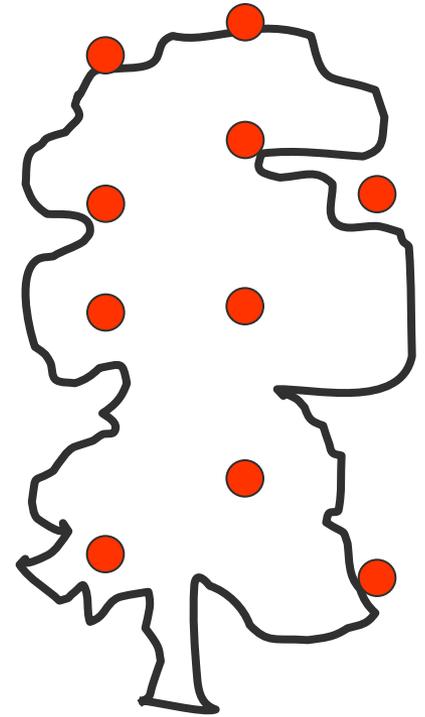
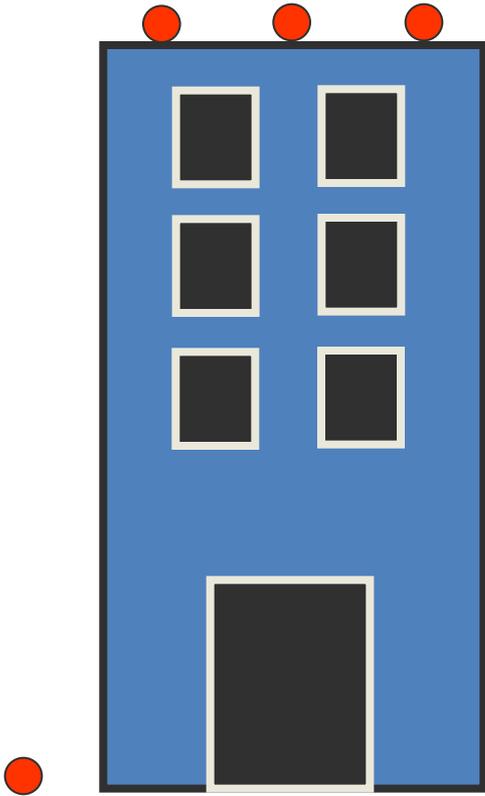
Digital Surface Model (DSM)



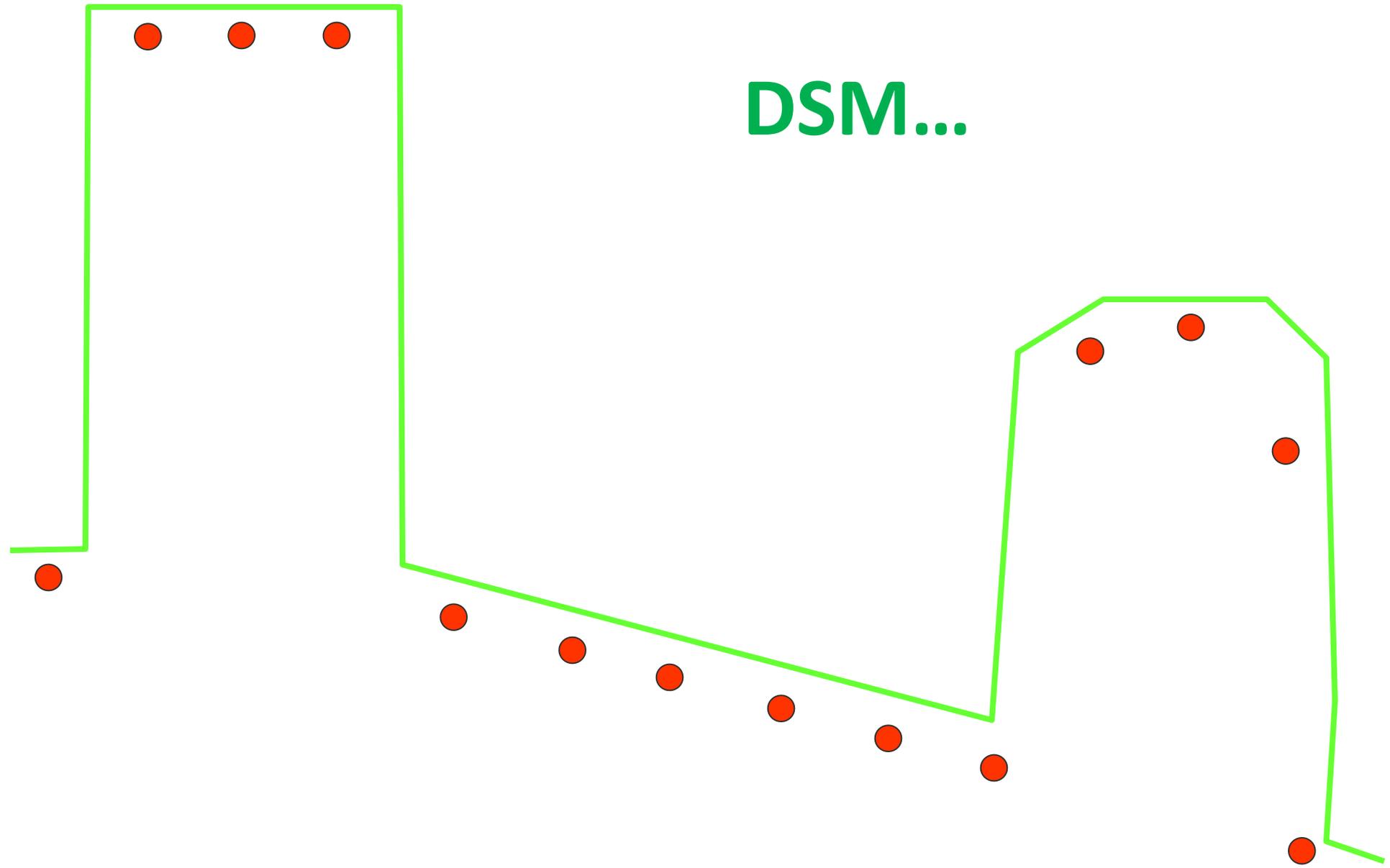
Digital Elevation Model (DEM)



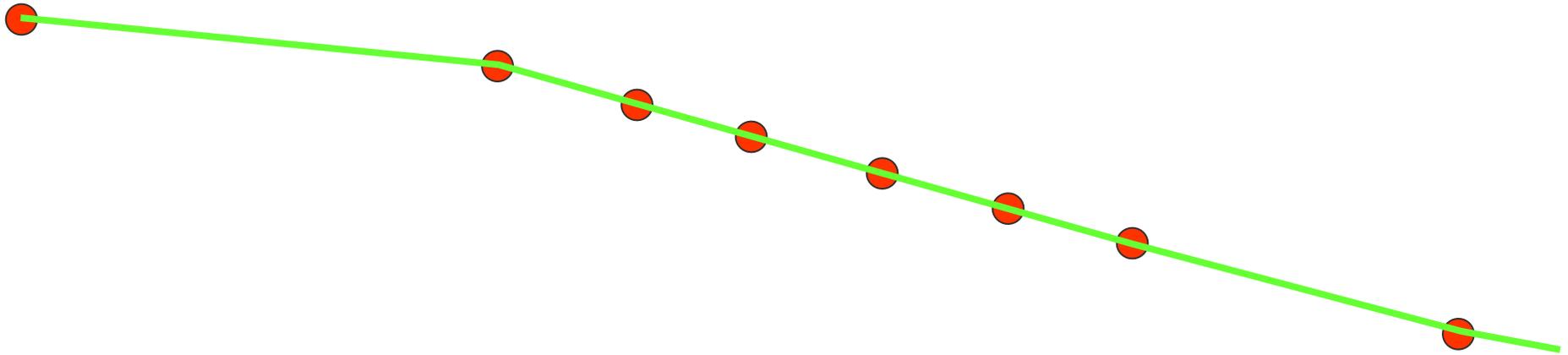
Points...



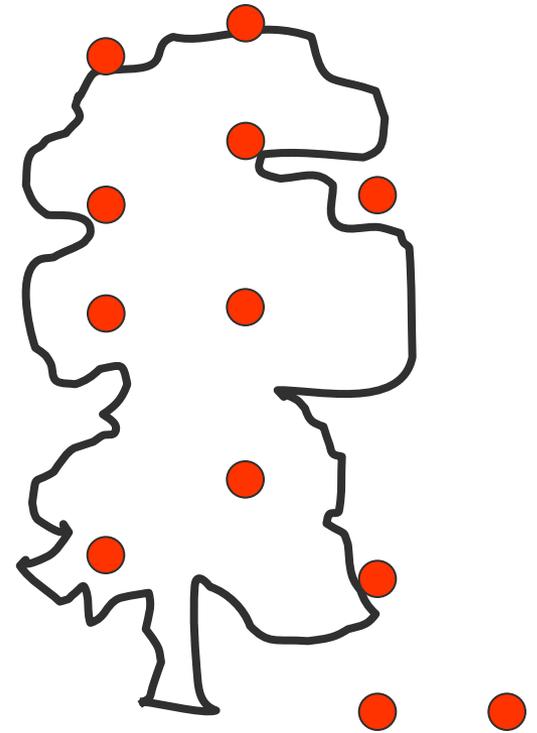
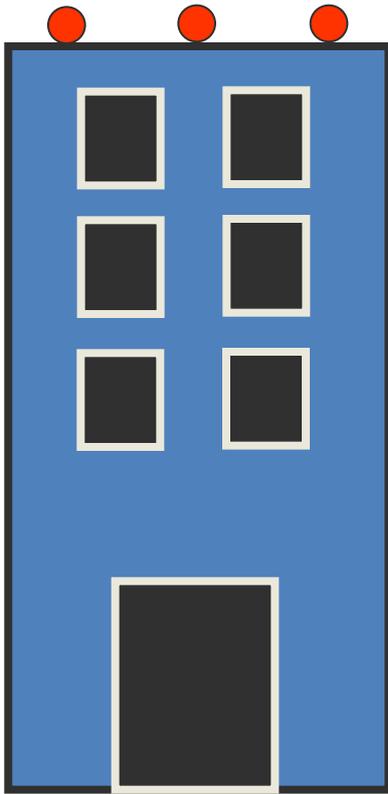
DSM...



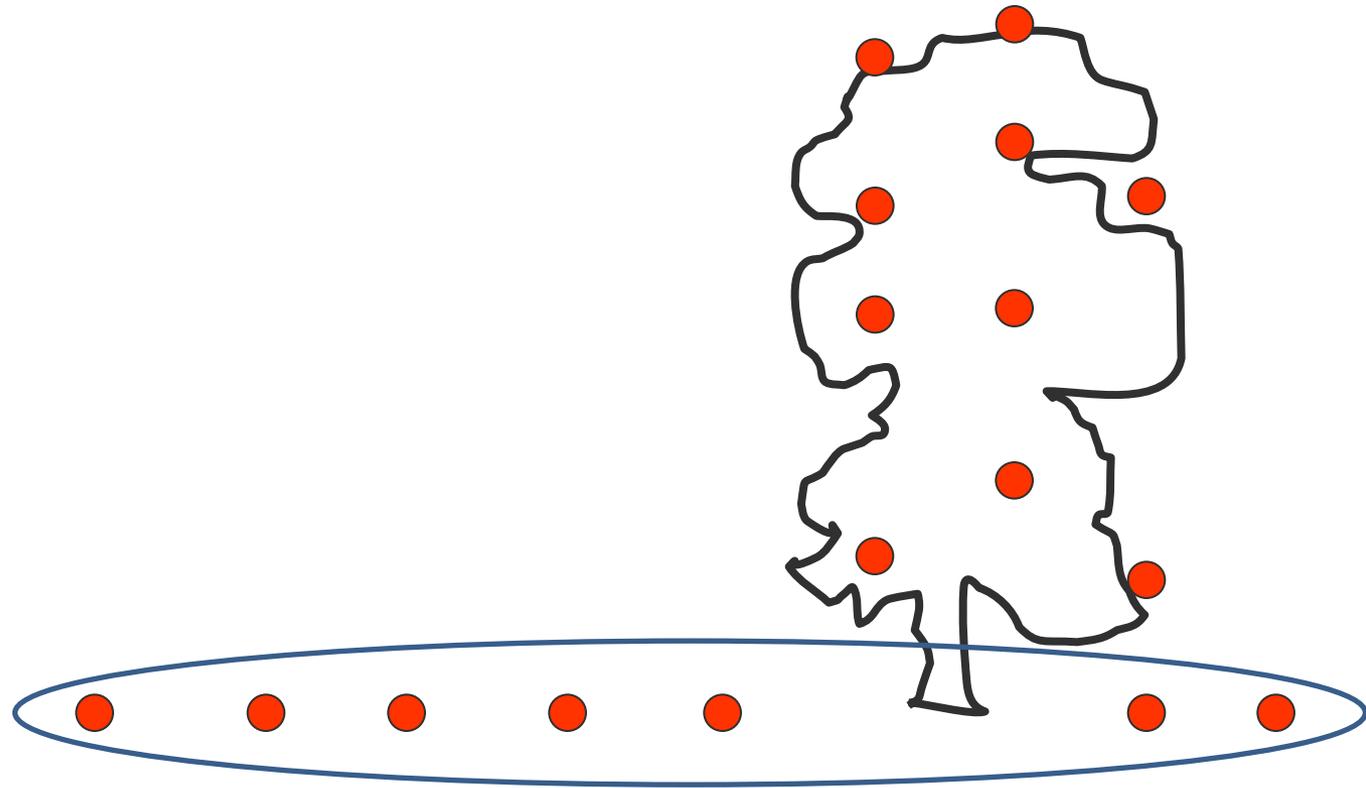
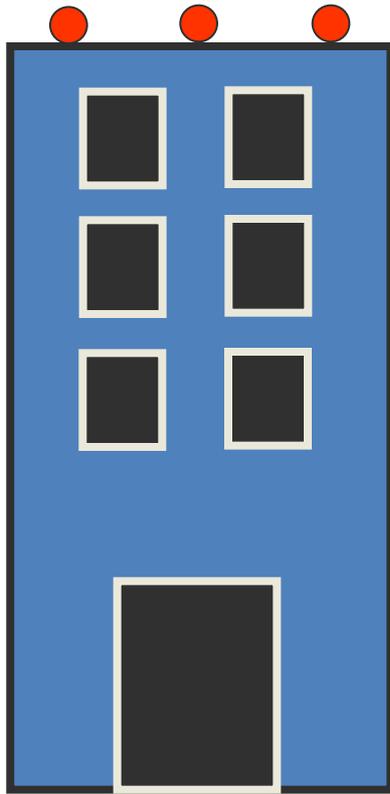
DEM – classified ground



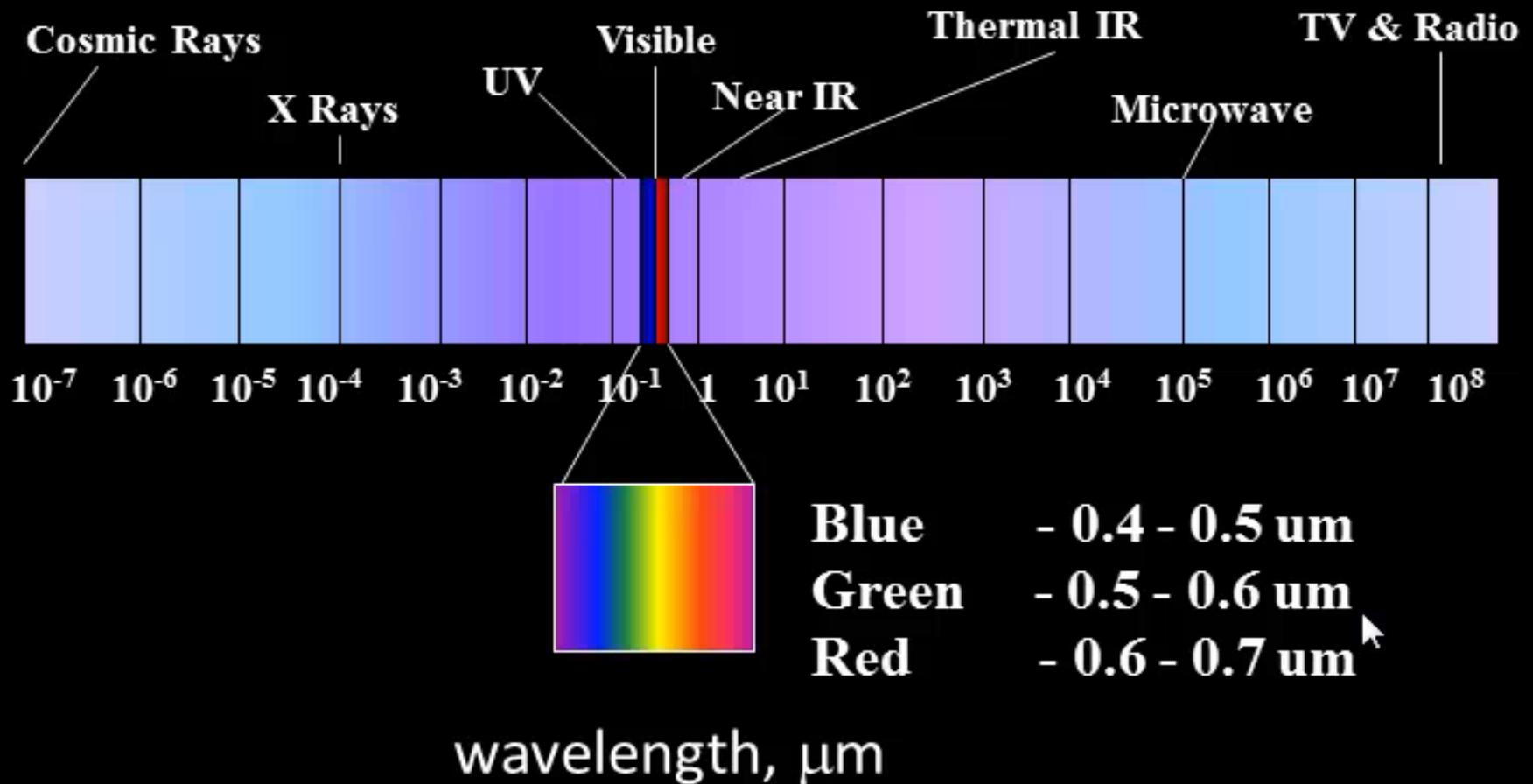
Multiple Returns



Multiple Returns

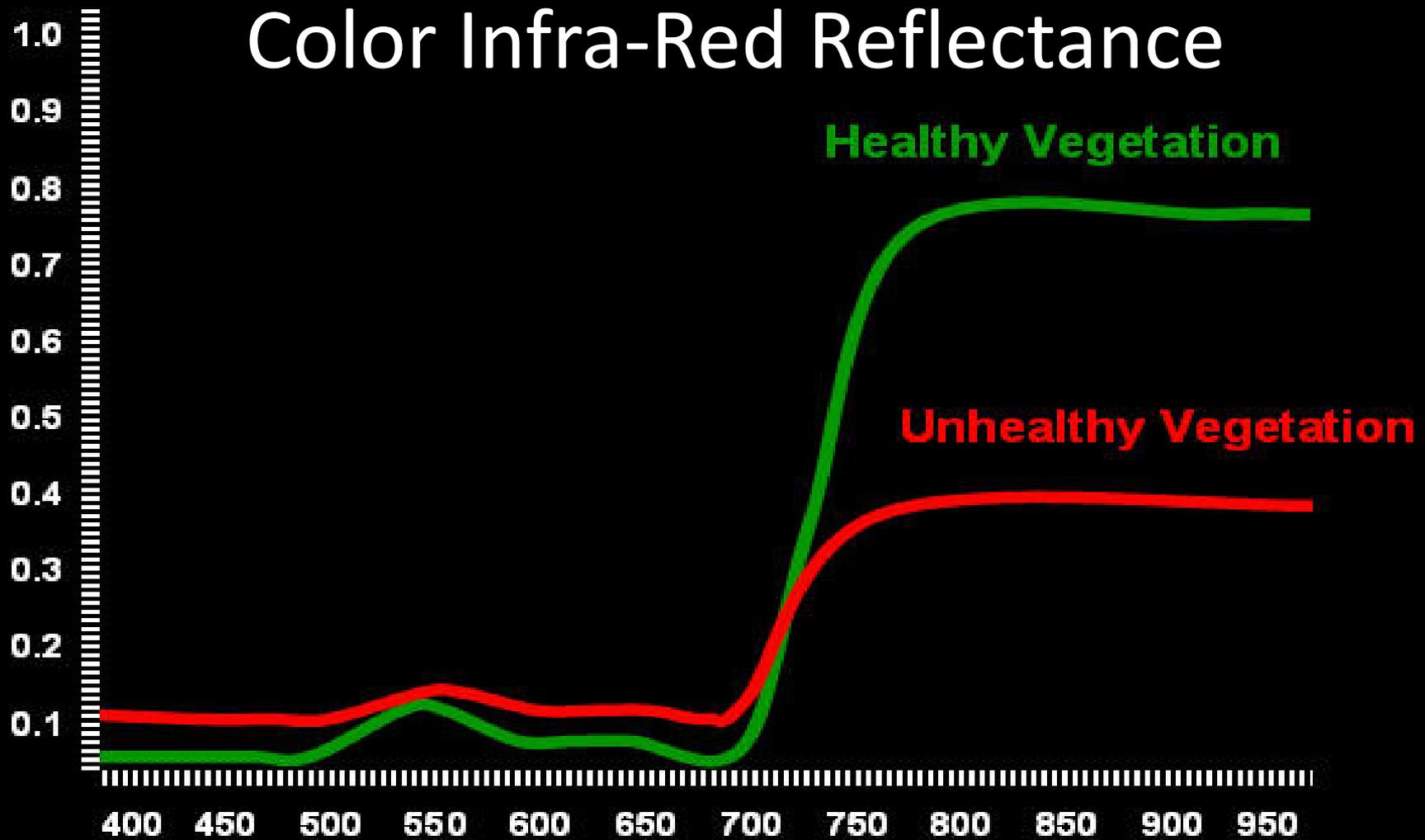


Electromagnetic Spectrum



Color Infra-Red Reflectance

Reflectance



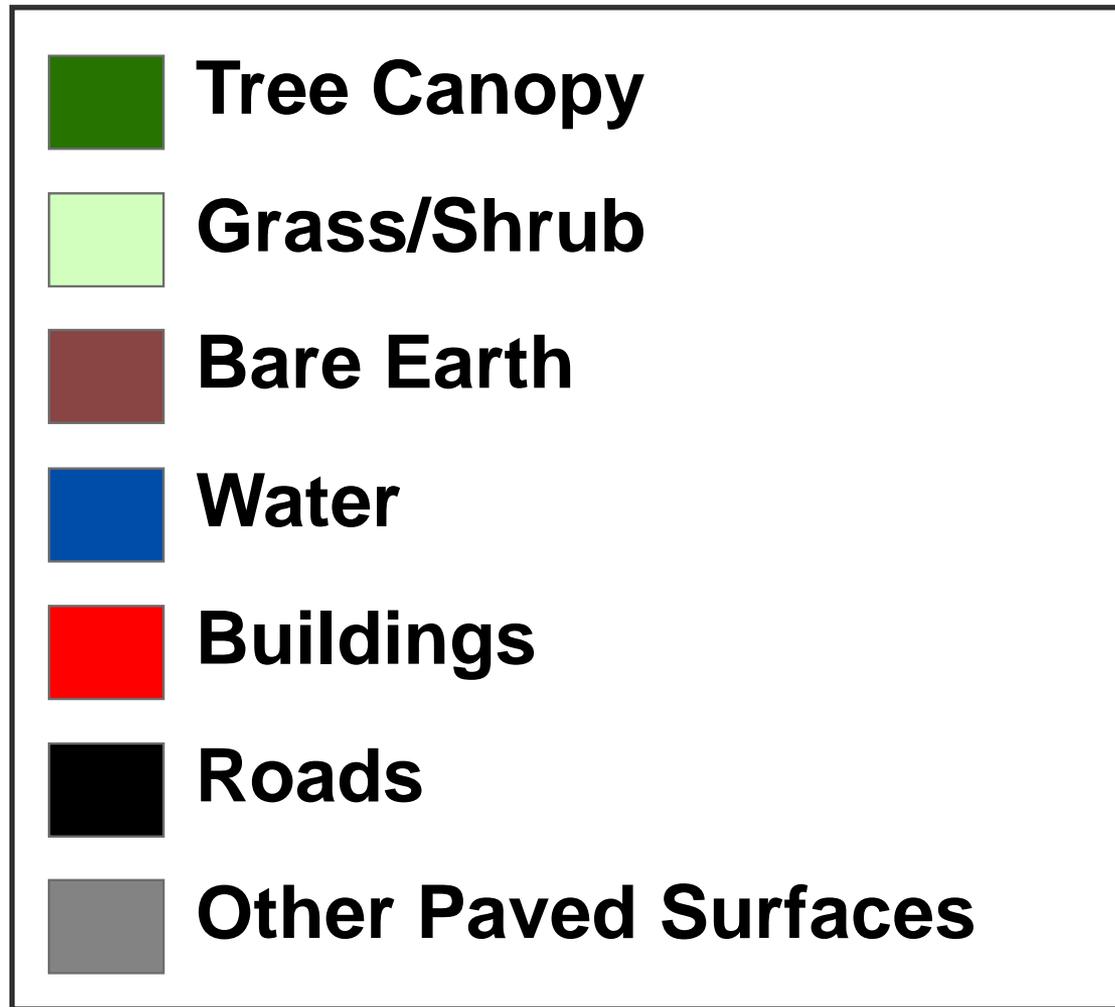
Wavelength (in nm)



Shadows

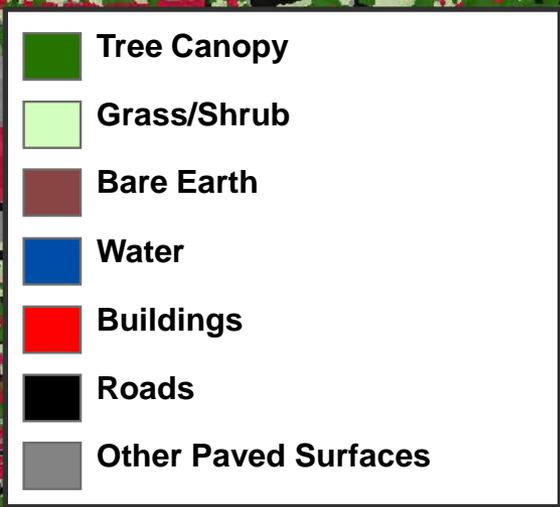
Seasons

High Resolution Land Cover







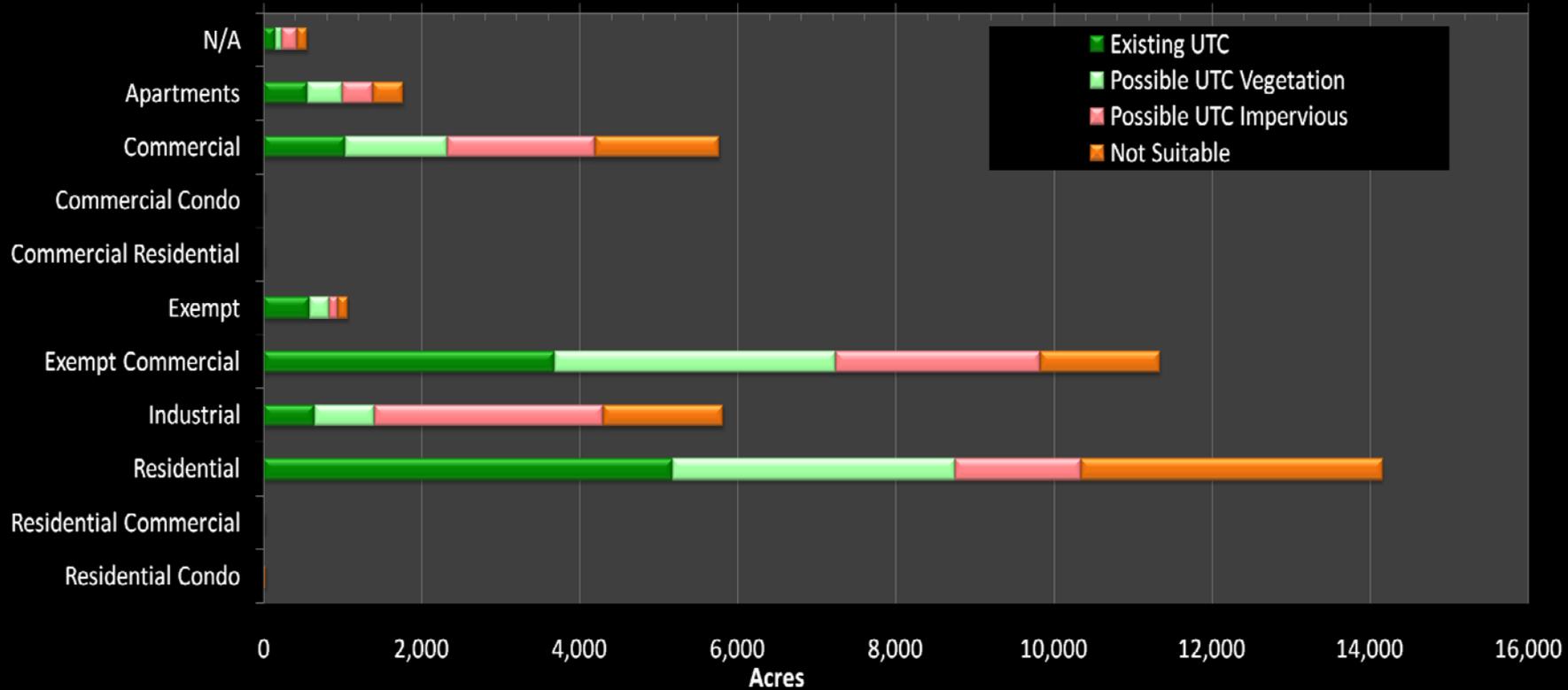




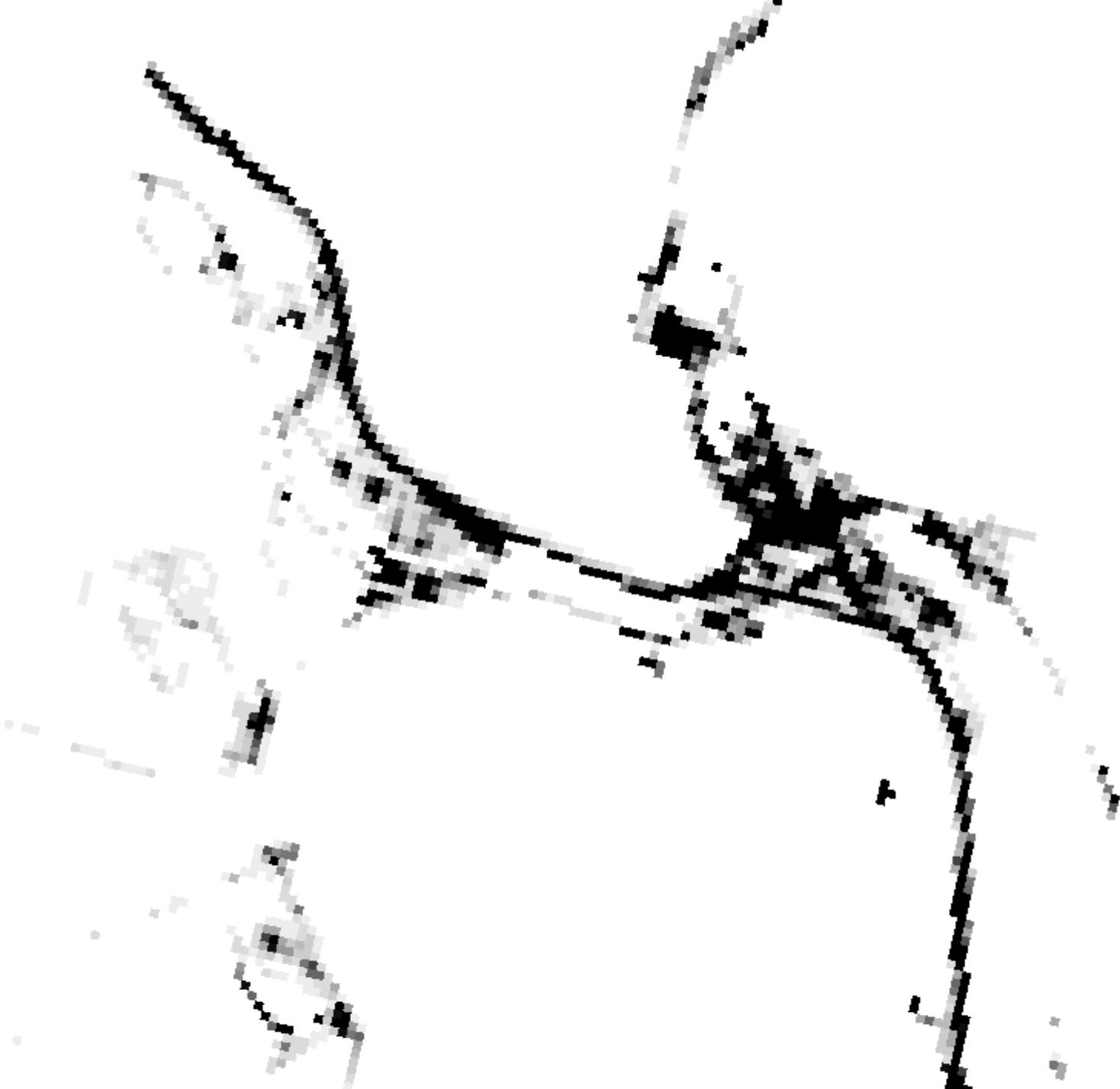


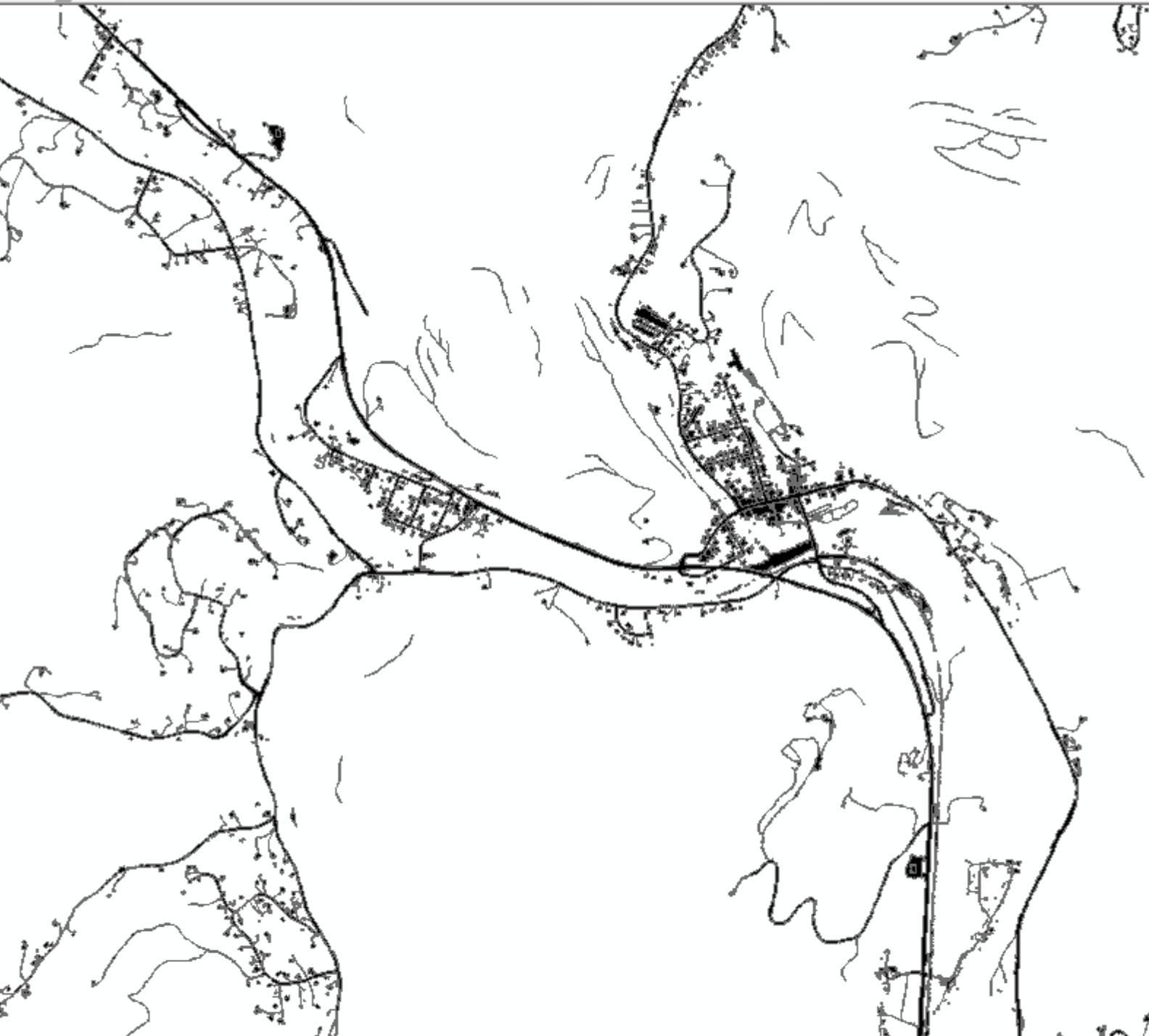


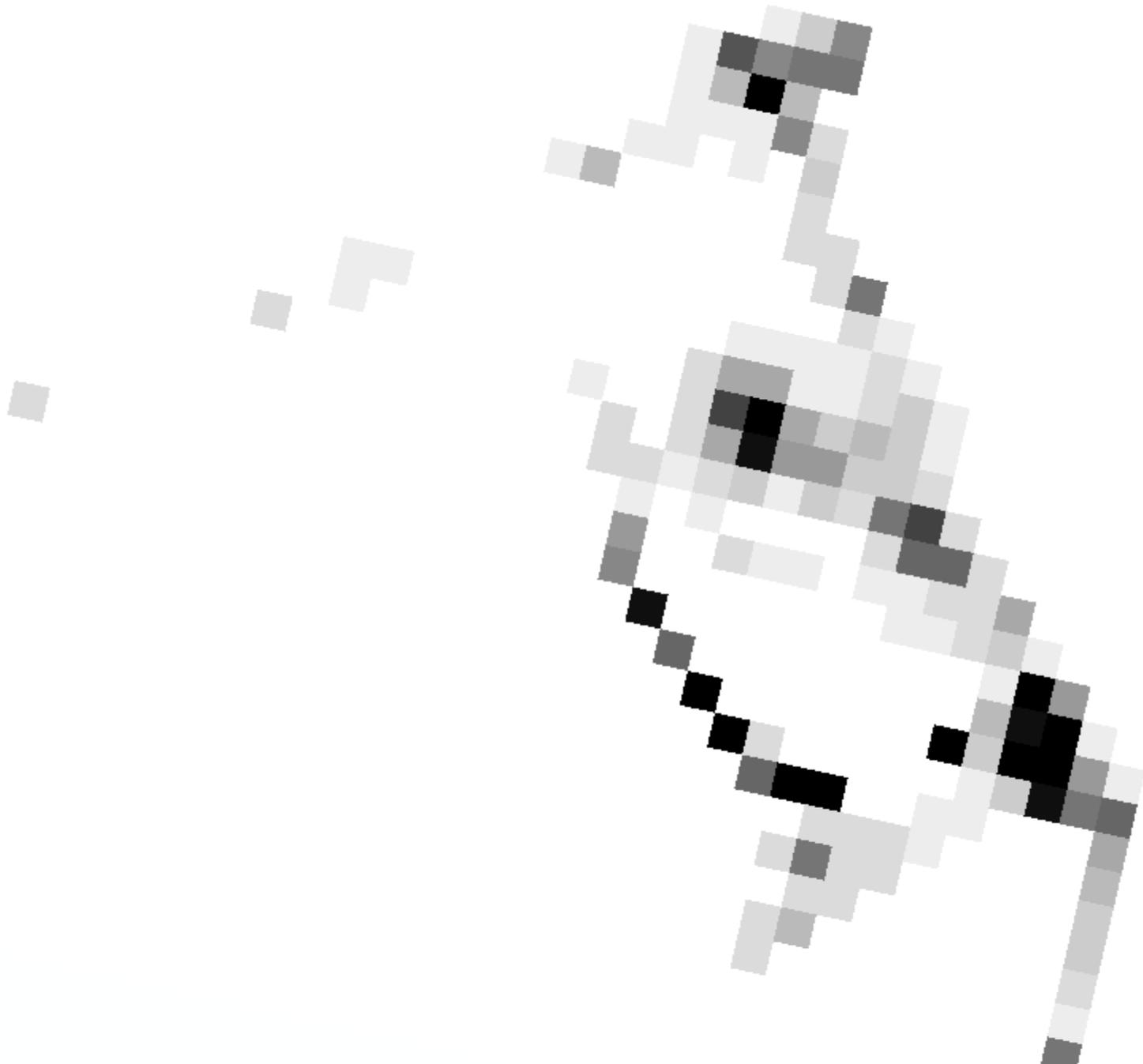
Information from Data











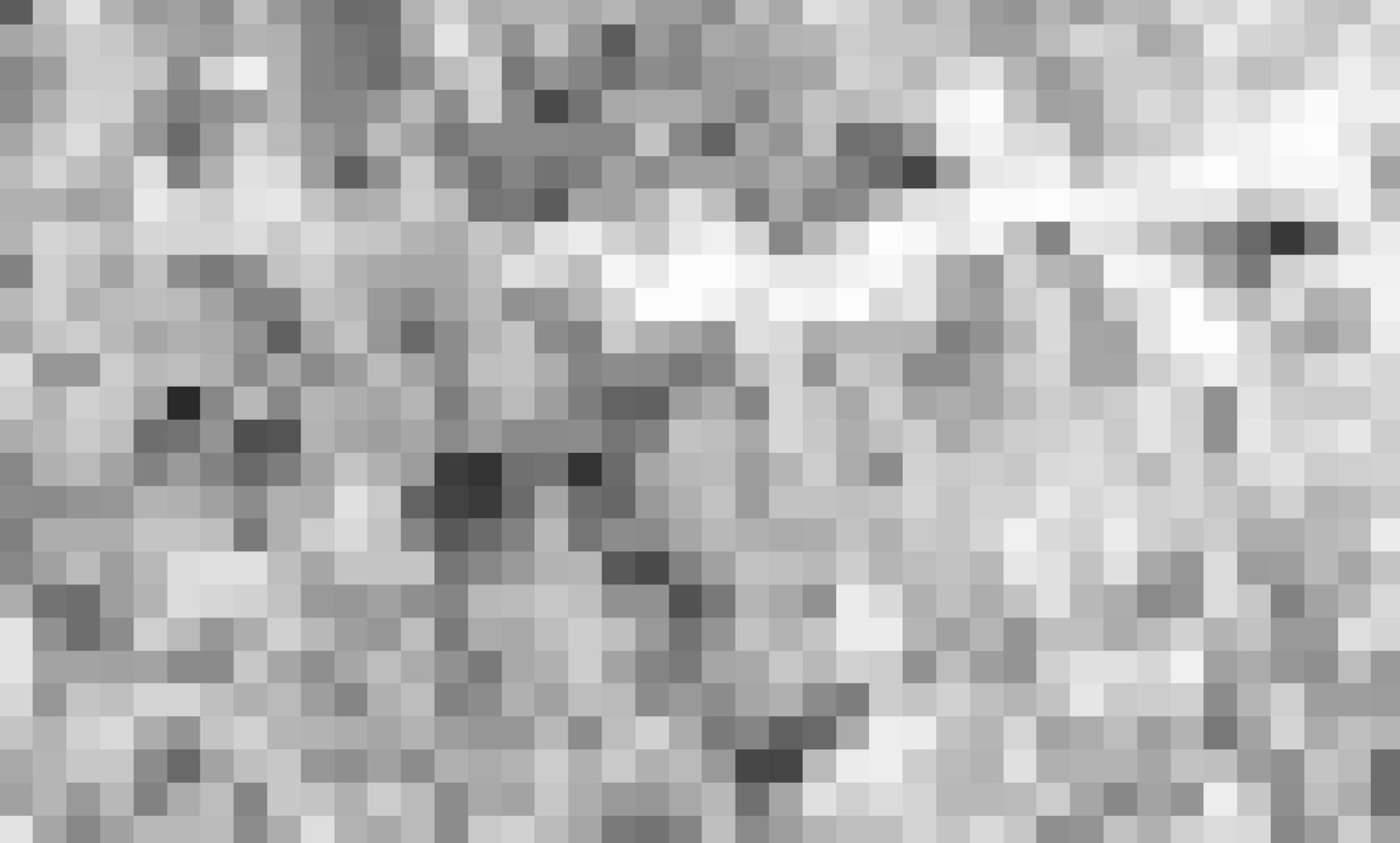




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Imagery





NLCD % Impervious

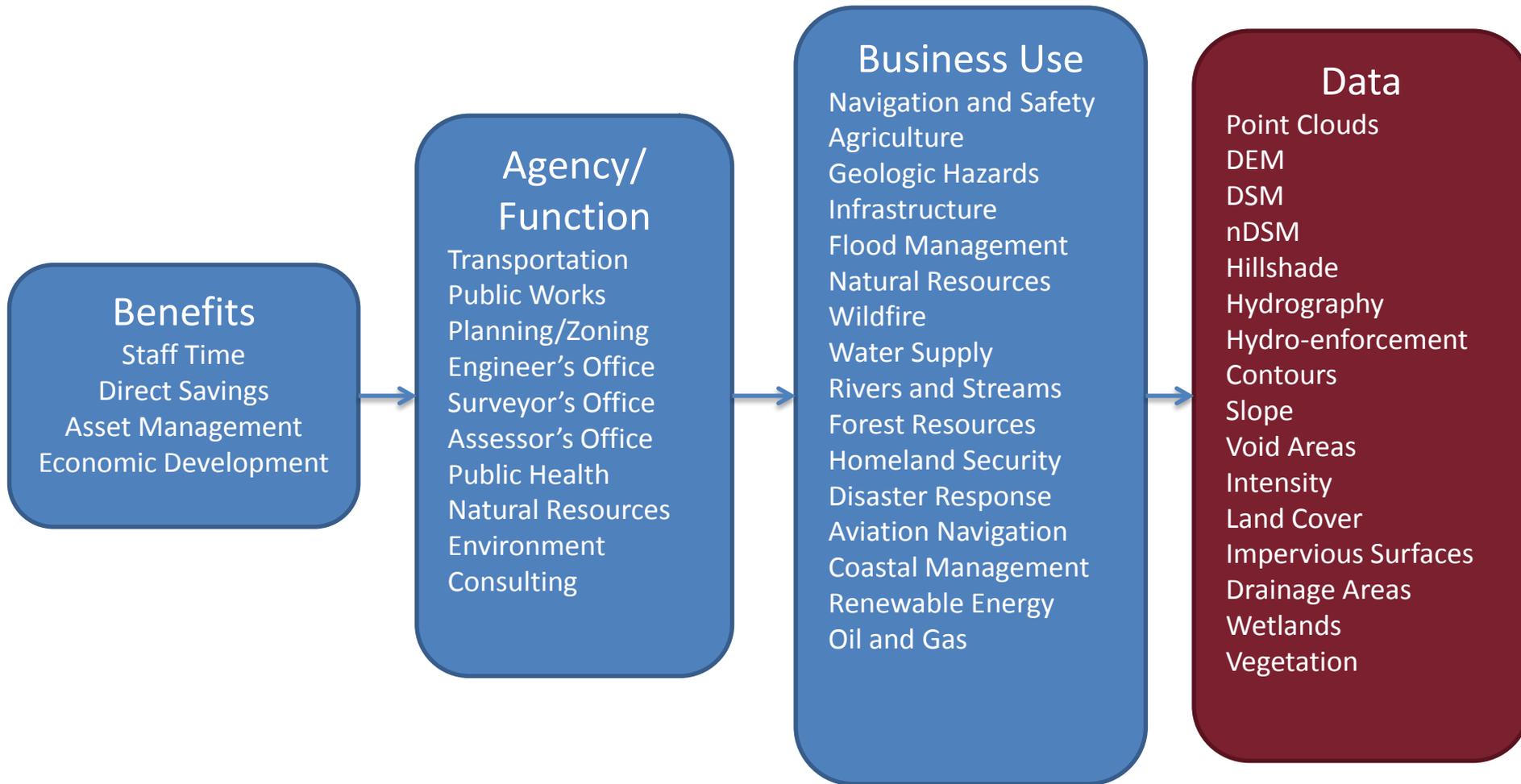




1m Impervious



Benefits of LiDAR



Thank you!





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