Lidar; Huh that was easy.
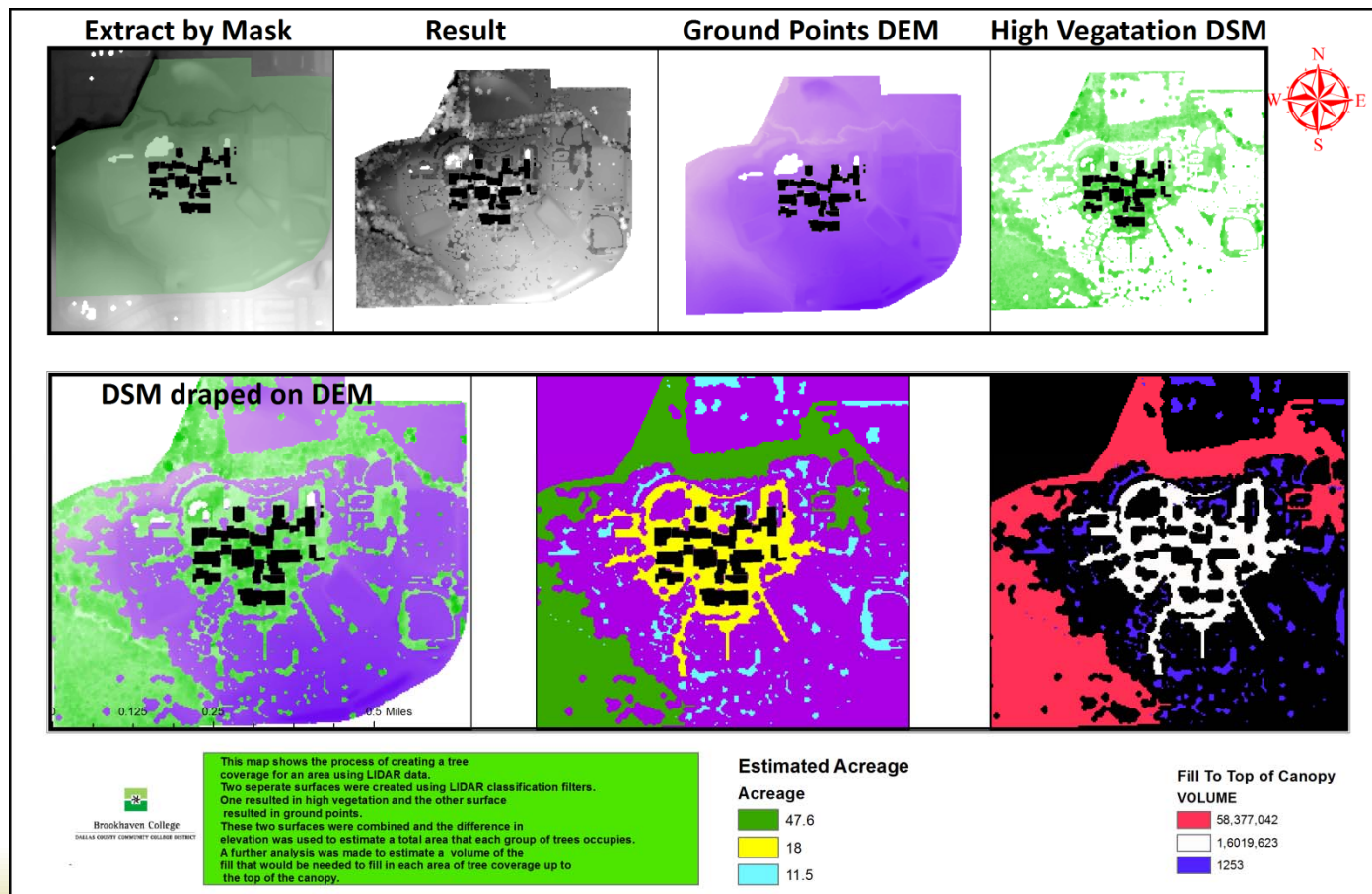
J. Scott Sires

Brookhaven College

Geotechnology Institute

www.dcccd.edu/gis

Backstory

 How many know about Lidar?
Used Lidar?

 At BHC the GIS students wanted to learn about Lidar while the College was also wanting to apply for the Tree Campus USA program.

 In a remote sensing class we dove into determining tree density and percent canopy coverage.

 Today's session is a conversation, an active discussion and series of live demonstrations.

Sample student summary

… and another

Brookhaven College Tree Density
Plant, Nurture and Celebrate Trees

High Canopy Trees
High Middle Canopy Trees
Middle Canopy Trees
Low Middle Canopy Trees
Low Canopy Trees

Tree Density 28% of 192 Acres

Brookhaven College 2001 Aerial Imagery

Brookhaven College 2013 LIDAR Derived Tree Density

0   500   1,000   2,000 Feet

0   500   1,000   2,000 Feet

Intermediate Tree Density Development Imagery

Brookhaven College
DALLAS COUNTY COMMUNITY COLLEGE DISTRICT

3-D Brookhaven College Tree Density Imagery

Map Created by Robert Oleson
Date: December 06, 2013

Aerial Imagery NCTCAUG 2001 Data Purchase
LIDAR Data: TNRIS 2009 | http://www.tnris.org

3-D imagery created from an aerial perspective
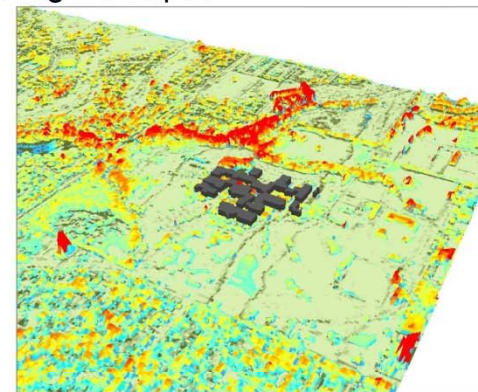looking north toward the main campus entrance.

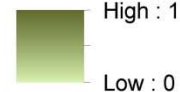# Last student example

Canopy Cover of Brookhaven College Campus

3D view of campus; facing Northwest
not to scale

Campus Canopy Density

Value
High : 1
Low : 0

Of the 192 acre area that is the Brookhaven campus 28% (54 acres) is covered by tree canopy
Campus boundry represented with red outline

Feet
0   500   1,000   1,500   2,000
Lidar Data Source: TNRIS 2009 Lidar

Map Created by: Michael Blake
Map Created on: 12/02/13

Where, how, who?

- Definitions
  - What is Lidar?
    - Active sensor VS. Passive sensor RS
  - What 'comes with' Lidar?
  - ASPRS classifications
- Software (version ??)
- Data access

Data Access:

ﾃ Preview Screen Captures

    ﾃ Tnris.ORG

    ﾃ Search for USGS CLICK - closing

    ﾃ Search for USGS 3DEV – about to unveil

    ﾃ The NEW Interagency Elevation Inventory site at USGS: www.csc.noaa.gov/inventory

Live Demonstrations

What toolbars, tools, processes, workflows:
- ArcCatalog
- ArcMap 10.1
- ArcScene 10.1

Contact Scott

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