



Delivery Lot Summary Report: Delivery Lot 5 **September 30, 2015**

USGS Contract: G10PC00026

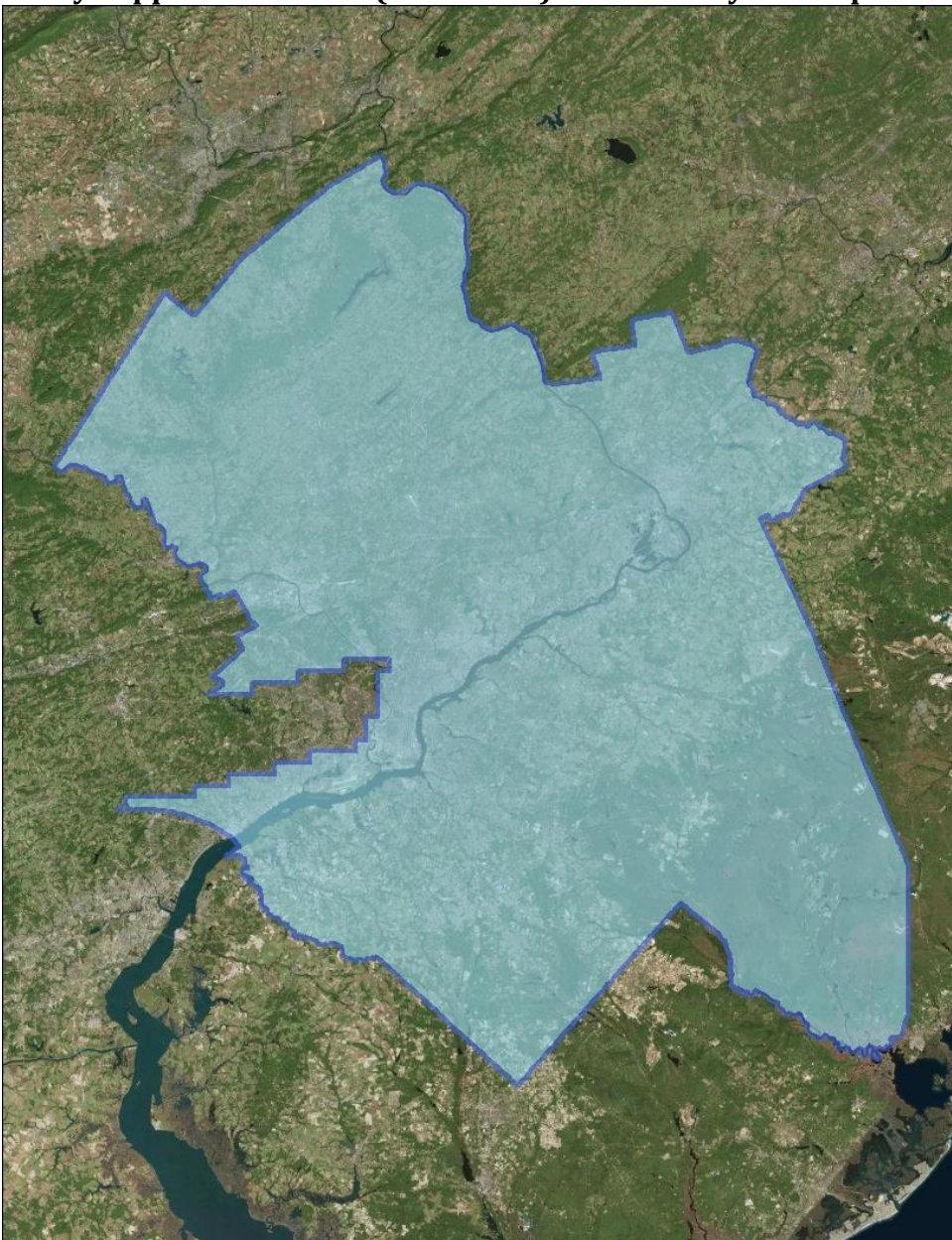
USGS Task Order: G15PD00316

Task Order Name: Delaware Valley High Density QL2 Lidar BAA Task Order

Contractor: Photo Science, a Quantum Spatial Company

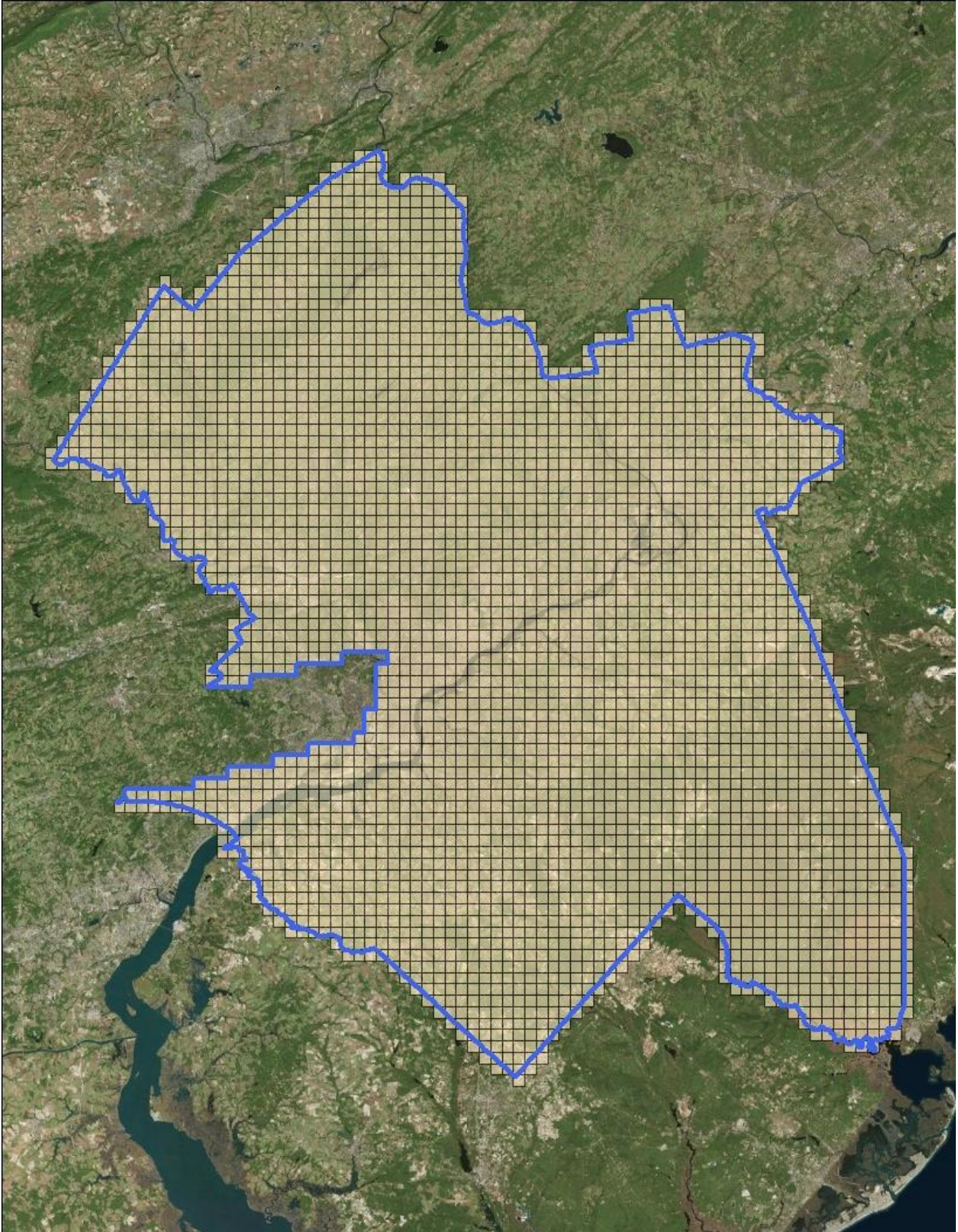
The following is a summary description of the edit call deliverables and other pertinent information that comprise the shipment of Delivery Lot 5 to USGS on September 30, 2015.

Sandy Supplemental NCR (VA-MD-DC) AOI Delivery Lot Map:



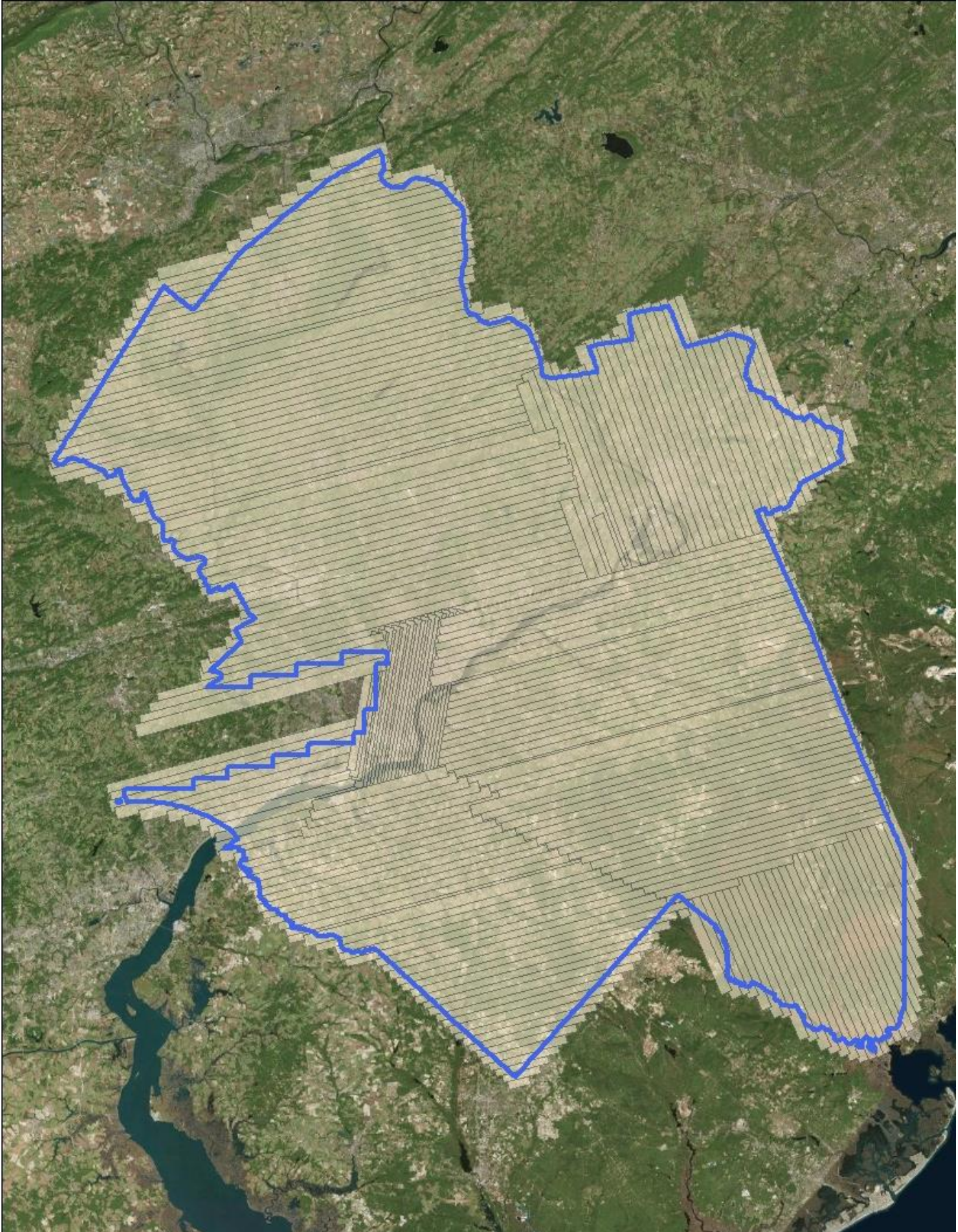


Delivery Lot 5 Map:



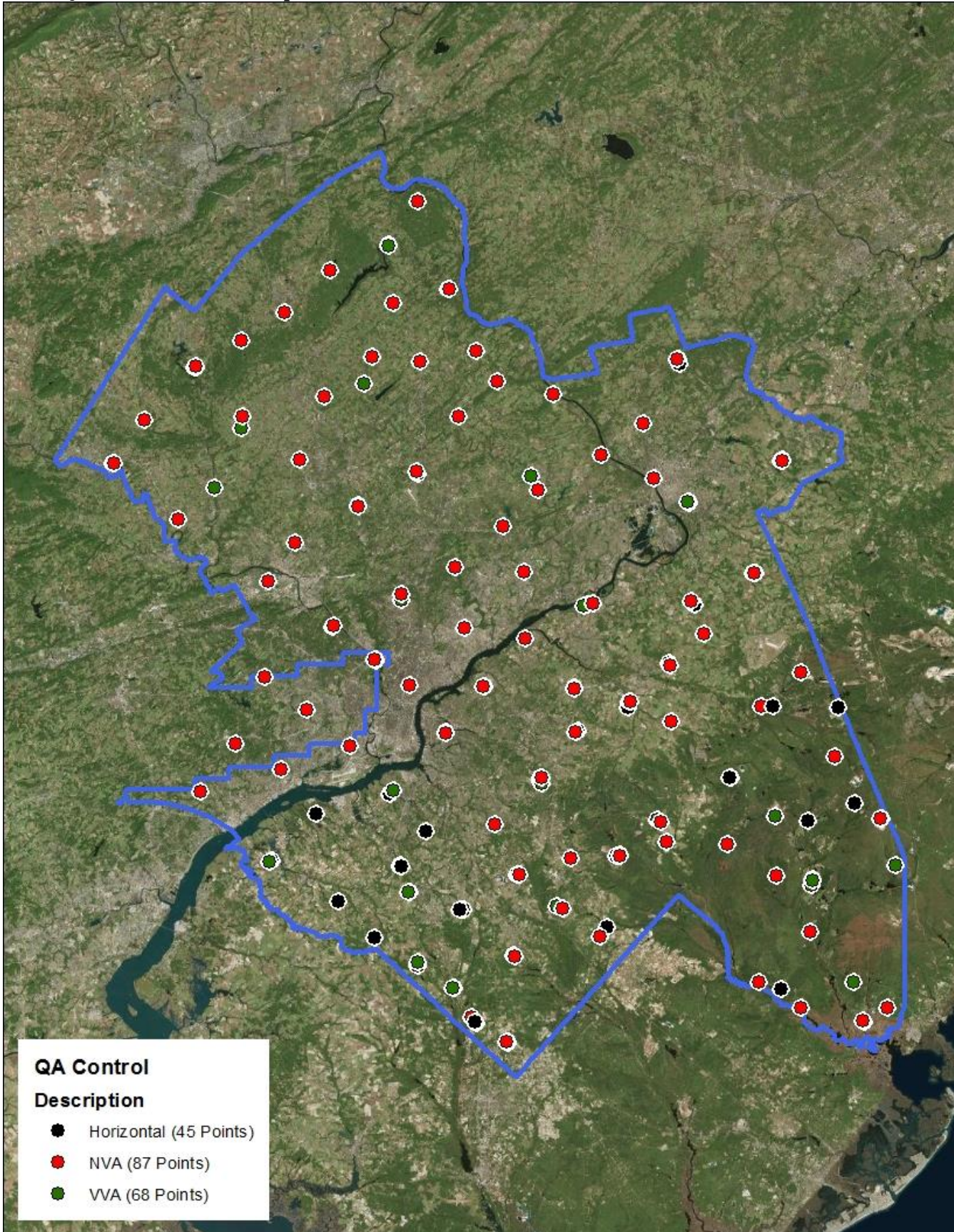


Lot 5 Raw Point Cloud Map:





Lot 5 QA Control Points Map:



**Task Order Spatial Reference System:**

- Horizontal: UTM Zone 18 North (2011), NAD83, Meters
- Vertical: NAVD88, GEOID12a, Meters

Deliverables Summary:

1. C.1.d.(i) Raw Point Cloud Data (calibrated and control adjusted): Included
 - LAS v1.4 Point Record Format 6
 - Total Number of Swath Files: 260
 - Total File Size: 1.28 TB (1,417,922,740,224 bytes)
 - Individual Swath Outline Shape File
2. C.1.d.(ii) Classified Point Cloud: Included
 - LAS v1.4, Point Record Format 6 including File Source ID w/ assigned value of 0
 - Classification Schema:
 - (01) Code 1 – Processed, but unclassified
 - (02) Code 2 – Bare-earth ground
 - (03) Code 7 – Noise
 - (04) Code 9 – Water
 - (05) Code 10 – Ignored Ground (Breakline Proximity)
 - (06) Code 17 – Bridge Deck
 - (07) Code 18 – High Noise
 - Total Number of Tiles: 3,589
 - Tile Dimensions: 1,500m x 1,500m
 - Total File Size: 1.12 TB (1,242,439,942,144 bytes)
 - Delivery Lot 5 Tile Shape Files (Lot 5 Boundary & Lot 5 Individual Tiles)
3. C.1.d.(iii) Bare Earth Surface (Raster DEM): Included
 - Format: ERDAS .IMG
 - Resolution: 1 meter grid cell size
 - Hydro Conditioning: Hydro Flattened
 - Total Number of Tiles: 3,589
 - Tile Dimensions: 1,500m x 1,500m (same used for Classified Point Cloud)
 - Total File Size: 30.2 GB (32,527,908,864 bytes)
4. C.1.d.(iv) Control:
 - Delivery Lot 5 QA Control Check Point Location Shape File Extract: Included
 - Delivery Lot 5 QA Control Check Point Published Values Extract .xls file: Included
5. C.1.d.(v) LiDAR Intensity Image: Included
 - Format: Grayscale, 8-bit, GeoTiff
 - Resolution: 1 meter grid cell size
 - Total Number of Tiles: 3,589
 - Tile Dimensions: 1,500m x 1,500m (same used for Classified Point Cloud)
 - Total File Size: 10.3 GB (11,129,380,864 bytes)



- 6. C.1.d.(vi) Breaklines: Included
 - Format: ESRI Shapefile (.shp)
 - Coverage: Lot 5 Continuous, Non-Tiled
 - Total File Size: 18.5 MB (19,423,232 bytes)
- 7. C.1.d.(vii) Metadata: Included
 - Format: FGDC compliant, XML
 - File Types: Project, Lift, Tiled deliverable product group (classified .las, DEM, & Intensity)
- 8. C.1.d.(viii) Project Report:
 - Delivery Lot Summary Report: Lot 5 Included
 - Overall Project Report: Included, but will be updated, after reflight.
- 9. Lot 5 QA & Accuracy Reporting
 - FOCUS Report: Included
 - Lot 5 Provisional NVA/VVA Testing Results: .xls file Included
 - LAS Analysis (Excel File): Included
 - Raster Analysis (Excel File): Included

Lot 5 Provisional Accuracy Reporting:

- Number of QA Check Points falling within Delivery Lot 5 by Tested Land Cover Type:
 - Non-Vegetated Points (NVA): 68
 - Vegetated Points (VVA): 87
- Testing:

Raw FVA

	Count	Minimum	Maximum	St. Dev	RMSE	95%	95th	Mean	Median	Skew
RAW NVA	87	-0.073	0.270	0.042	0.042	0.082	-	0.00	0.00	3.01

FVA, SVA, CVA

	Count	Minimum	Maximum	St. Dev	RMSE	95%	95th	Mean	Median	Skew
Non Vegetated (NVA)	87	-0.068	0.267	0.041	0.041	0.080	-	0.00	0.00	3.17
Vegetated (VVA)	68	-0.074	0.325	0.092	0.109	-	0.265	0.06	0.03	1.22
LIDAR Calibration	0	-	-	-	-	-	-	-	-	-

Delivery Lot Notes/Comments:

Please note, there are approximately 163 tiles that have been held back on the western side of the project. This is based on email and phone discussion between USGS and Quantum Spatial regarding a flight with higher leaf coverage than the rest of the project. This area will be reflighted in the fall of 2015 and these tiles will be calibrated, cleaned up and delivered as soon as possible after collection.