

Waushara County, WI FEMA LiDAR Project

USGS Comment Responses

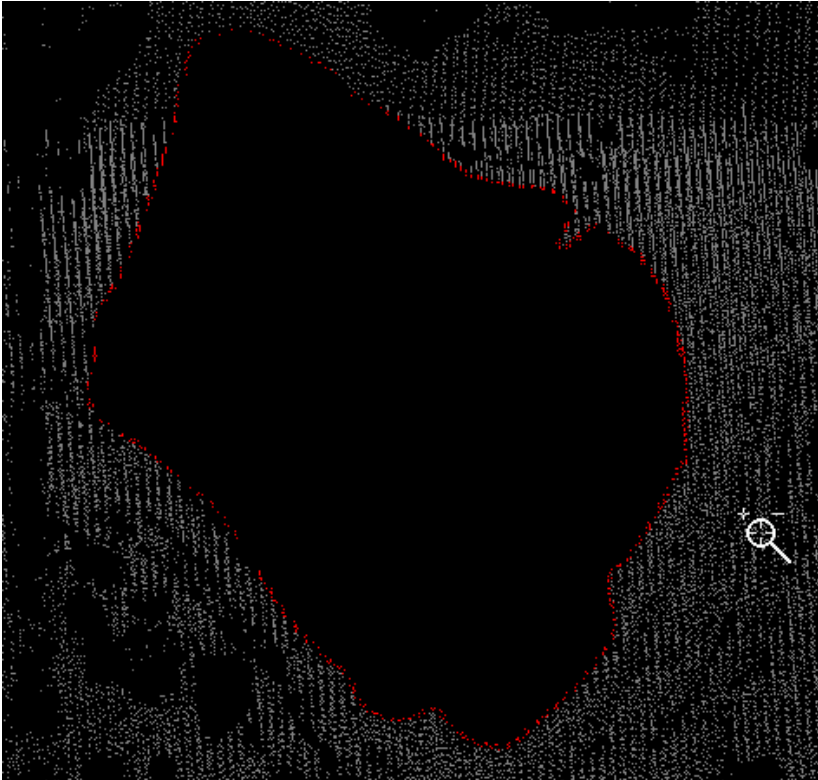
HUFFINES, JAMES

USGS Comment: Tile 0284 waterbody over 2 acres in need of hydro treatment

Response: The revised Waushara_0284.img has been corrected.

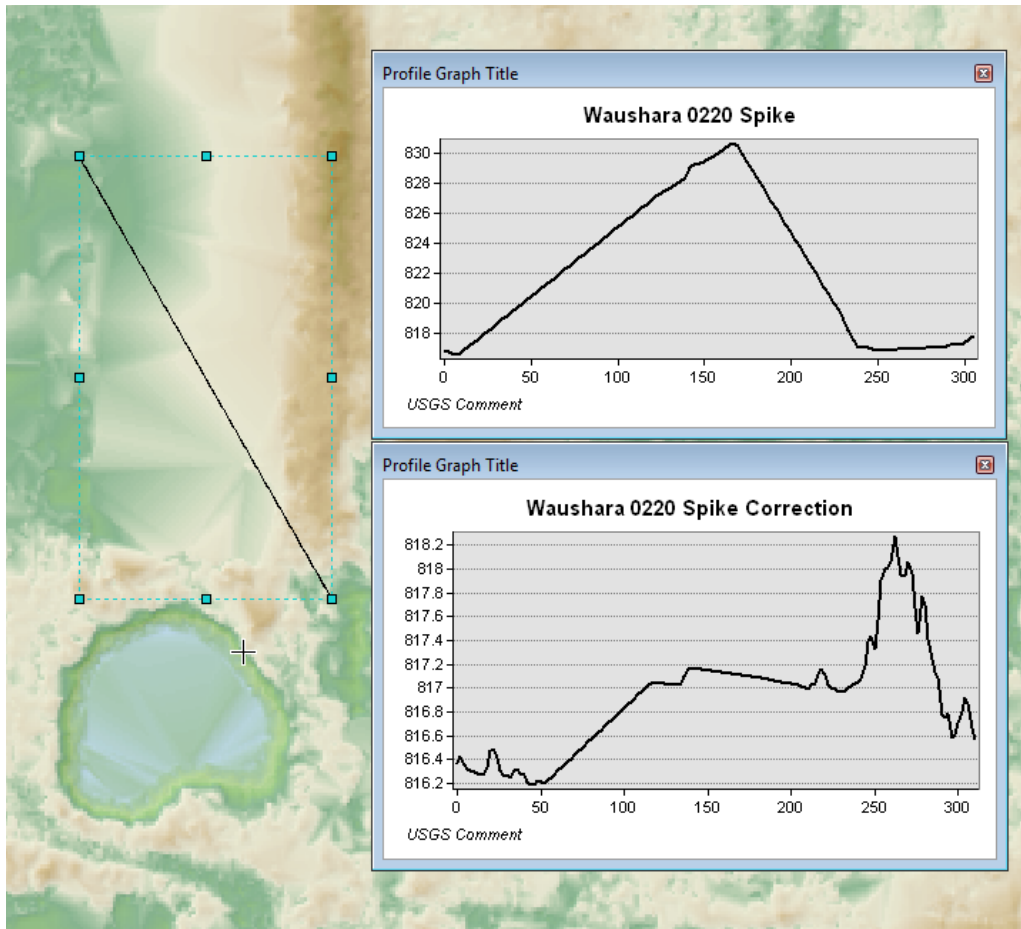


Waushara_0284.las Updated to include class 10 for breaklines



USGS Comment: Tile 0220 spike in the DEM that needs to be corrected

Response: Spike has been successfully removed from DEM



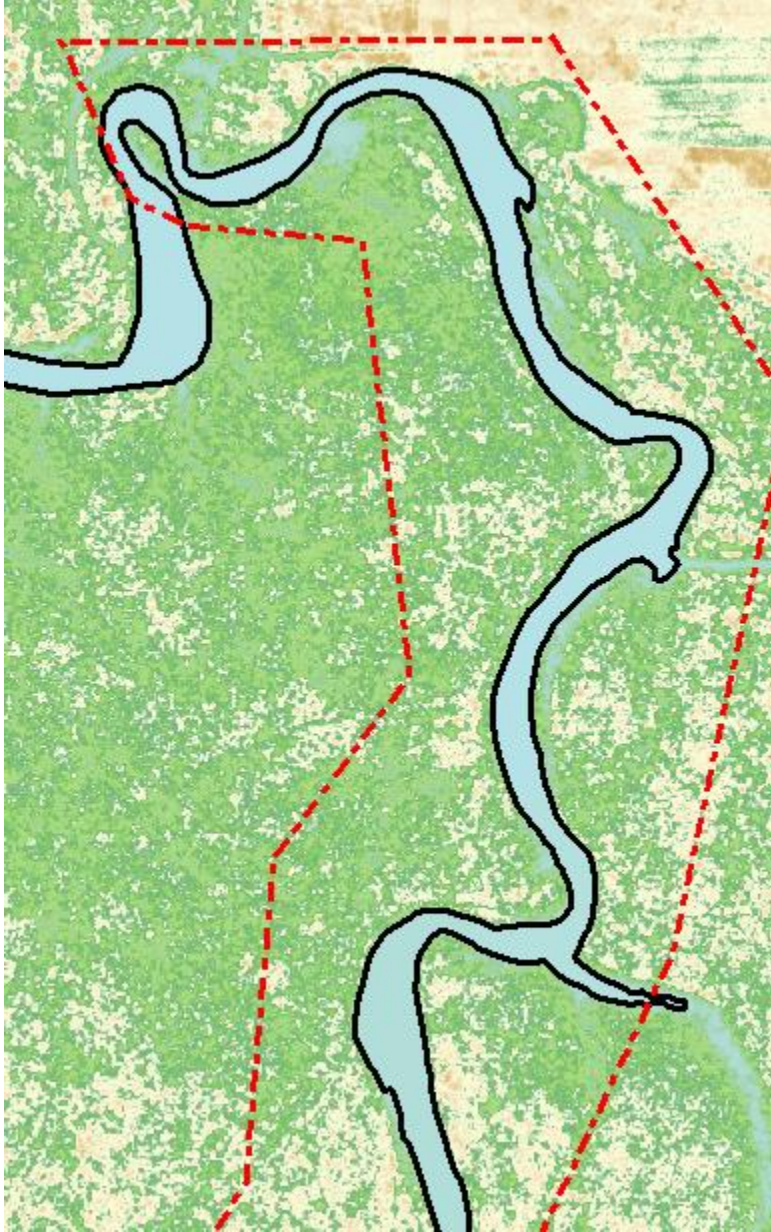
Spike no longer present in LAS file.



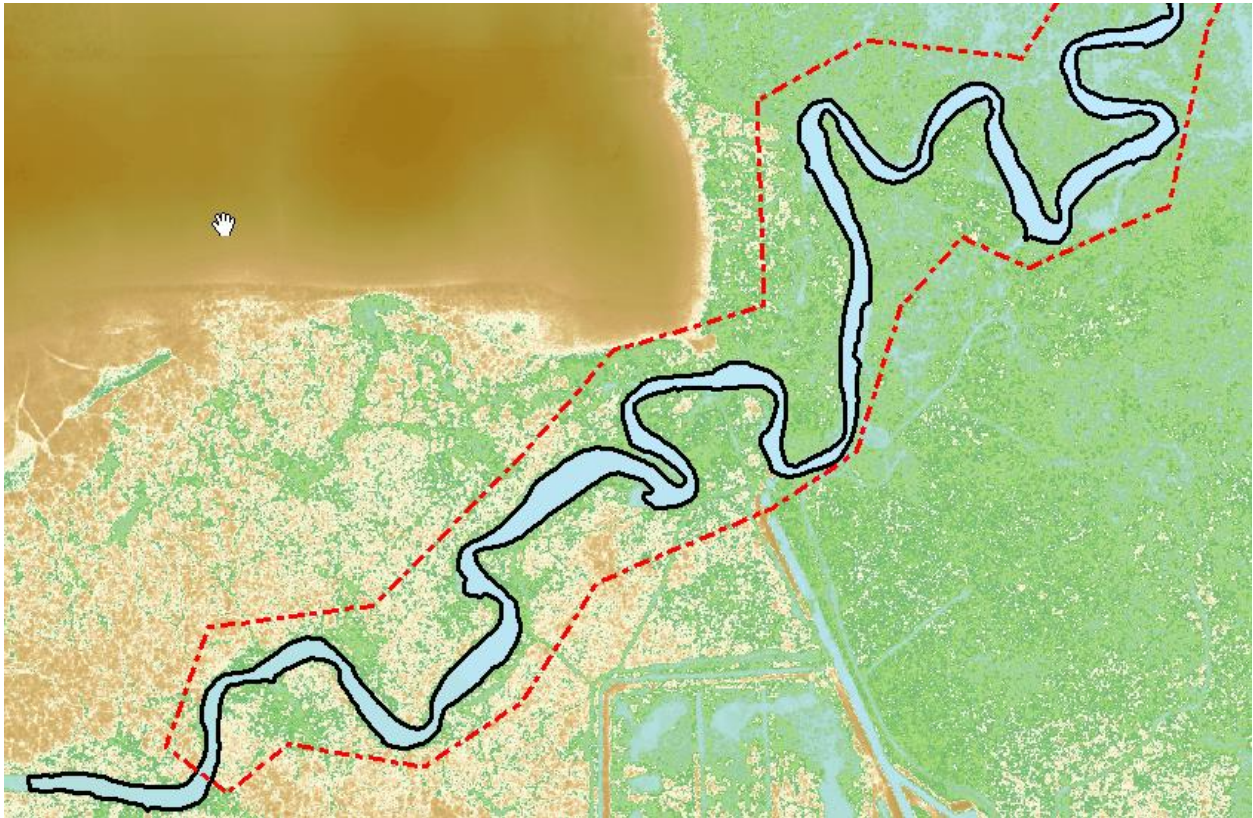
USGS Comment: Waushara Tiles 0490 and 0528 regional river needs to be flattened in a downstream manner.

Response: River has been flattened downstream

Waushara Tile 0490



Waushara Tile 0528



LAS tiles were reviewed and Waushara_0490.las and Waushara_0528.las Updated to include class 10 for breaklines.

USGS Comment: XML Metadata parsed with errors

Response: Using the USGS Geospatial Metadata Validation Service ...
<https://geo-nsdi.er.usgs.gov/validation/> metadata was validated without any errors.

Validation Results:

```
#####  
# Waushara County Metadata Corrections #  
#####
```

USGS Metadata Parser Results June 18, 2019

Waushara_Co_WI_Lidar_Bare-earth_DEM.xml
mp 2.9.50 - Peter N. Schweitzer (U.S. Geological Survey)
Info: input file = phpqNDhcO.xml
Info: process date = 20190619
Info: process time = 13:38:20
Warning (line 3): Missing Entity_and_Attribute_Information is mandatory if applicable in Metadata
No errors

Waushara_Co_WI_Lidar_Breaklines.xml
mp 2.9.50 - Peter N. Schweitzer (U.S. Geological Survey)
Info: input file = phpUvijig.xml
Info: process date = 20190619
Info: process time = 13:42:52
No errors

Waushara_Co_WI_Lidar_Classified.xml
mp 2.9.50 - Peter N. Schweitzer (U.S. Geological Survey)
Info: input file = phpTg9Qaz.xml
Info: process date = 20190619
Info: process time = 13:43:46
Warning (line 3): Missing Entity_and_Attribute_Information is mandatory if applicable in Metadata
No error

Waushara_Co_WI_Lidar_Lift_110717A.xml
mp 2.9.50 - Peter N. Schweitzer (U.S. Geological Survey)
Info: input file = phpKhNUP5.xml
Info: process date = 20190619
Info: process time = 13:44:12
Warning (line 3): Missing Entity_and_Attribute_Information is mandatory if applicable in Metadata
No errors

Waushara_Co_WI_Lidar_Lift_110717B.xml

mp 2.9.50 - Peter N. Schweitzer (U.S. Geological Survey)

Info: input file = phpc6F397.xml

Info: process date = 20190619

Info: process time = 13:44:37

Warning (line 3): Missing Entity_and_Attribute_Information is mandatory if applicable in Metadata

No errors

Waushara_Co_WI_Lidar_Lift_110817.xml

mp 2.9.50 - Peter N. Schweitzer (U.S. Geological Survey)

Info: input file = phpWoltOj.xml

Info: process date = 20190619

Info: process time = 13:45:15

Warning (line 3): Missing Entity_and_Attribute_Information is mandatory if applicable in Metadata

No errors

Waushara_Co_WI_Lidar_Project.xml

mp 2.9.50 - Peter N. Schweitzer (U.S. Geological Survey)

Info: input file = phpLTU4x.xml

Info: process date = 20190619

Info: process time = 13:55:37

Warning (line 3): Missing Entity_and_Attribute_Information is mandatory if applicable in Metadata

No errors

These results are included with the revised metadata xml files as a separate text file.

USGS Comment: The outer edge DEM tiles vary in size and shape from the majority of DEM tiles.

Response: Tiles are clipped to the Waushara County boundary 100-meter Buffered Project Area (BPA). LiDAR post processing only occurred within the BPA and the tile index provided make it clear that tiles along the BPA are not complete tiles.

USGS Comment: During the RASQC process, two WKTs were found. 746 of the total 760 raster files were consistent; 14 of the raster files had a different WKT than the rest of the delivered raster files. The USGS prefers WKT format that includes VERTCS.

Response: All DEM WKT strings were compared using python and now each DEM has WKT that includes VERTCS.

Python Code:

```
from arcpy import Describe as desc
from glob import glob
import os.path as path
```

```
dem_directory = r'E:\waushara_county_wi_lidar\usgs_comments\waushara_revisions\Updated_DEMs'
dems = glob(path.join(dem_directory, '*.img'))
```

```
wkt_list = []
for dem in dems:
    sr_wkt = desc(dem).spatialReference.exportToString()
    wkt_list.append(sr_wkt)
```

```
dem_wkt = list(set(wkt_list))
if len(dem_wkt) == 1:
    usgs_wkt = "".join(dem_wkt)
```

```
usgs_wkt =
"PROJCS['NAD_1983_2011_StatePlane_Wisconsin_South_FIPS_4803_Ft_US',GEOGCS
['GCS_NAD_1983_2011',DATUM['D_NAD_1983_2011',SPHEROID
['GRS_1980',6378137.0,298.257222101]],PRIMEM['Greenwich',0.0],UNIT
['Degree',0.0174532925199433]],PROJECTION['Lambert_Conformal_Conic'],PARAMETER
['False_Easting',1968500.0],PARAMETER['False_Northing',0.0],PARAMETER
['Central_Meridian',-90.0],PARAMETER['Standard_Parallel_1',42.73333333333333],PARAMETER
['Standard_Parallel_2',44.06666666666667],PARAMETER['Latitude_Of_Origin',42.0],UNIT
['Foot_US',0.3048006096012192]],VERTCS['NAVD_1988_Foot_US',VDATUM
['North_American_Vertical_Datum_1988'],PARAMETER['Vertical_Shift',0.0],PARAMETER
['Direction',1.0],UNIT['Foot_US',0.3048006096012192]]"
```