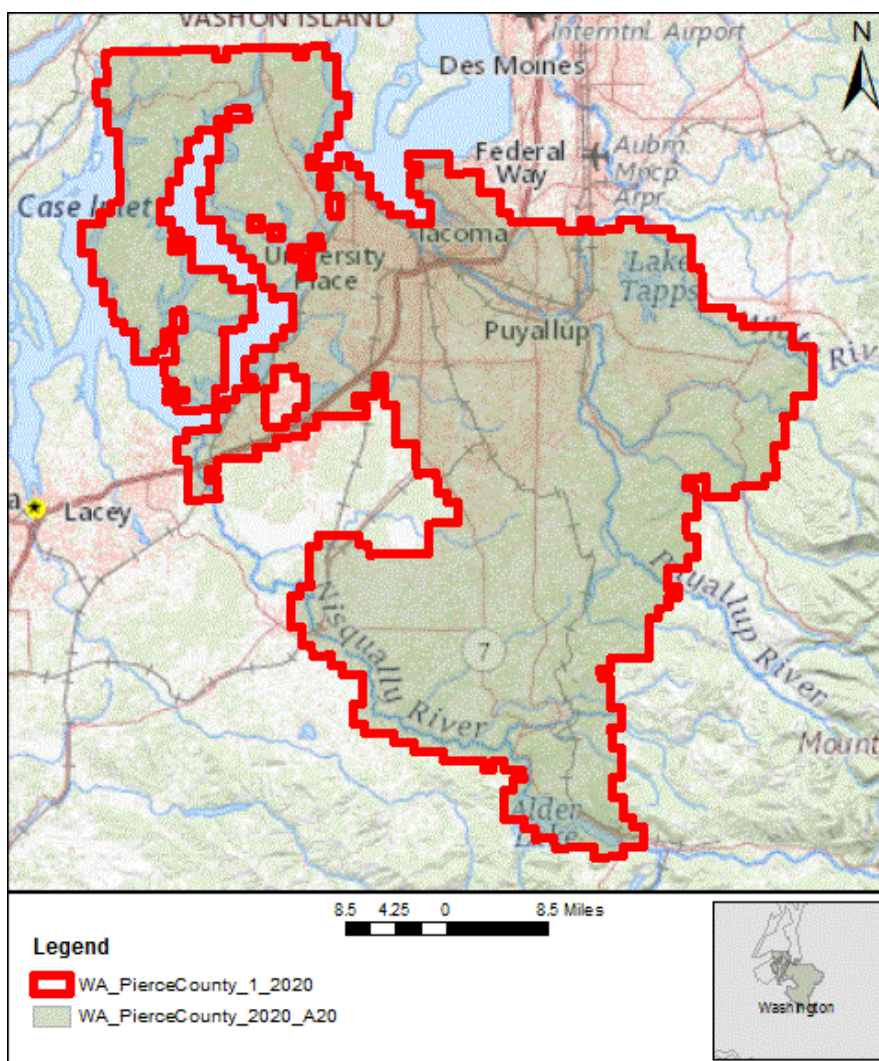


LIDAR Quality Report

from the National Geospatial Technical Operations Center
in Support of the 3D Elevation Program

WA_PierceCounty_1_2020

2021-03-23



Based on this review, the delivered data is **EXPECTED TO MEET** 3D Elevation Program requirements.

Project Information

WP Name: WA_PierceCounty_2020_A20	Work Package ID: 190550
WU Name: WA_PierceCounty_1_2020	Work Unit ID: 190548
Mechanism: Partnership	Lidar Base Spec: 2.1
Quality Level: 1	P-Method: 7 - Lidar
Horizontal EPSG Code: 2927	Vertical EPSG Code: 6360 Geoid Model GEOID 12B
The National Map Help Desk Email: tnm_help@usgs.gov	

The U.S. Geological Survey evaluates absolute vertical accuracy of the lidar and lidar-derived bare earth digital elevation model (DEM) data at the work package level. Data are produced to meet 9.8 cm absolute vertical accuracy at the 95-percent confidence level in non-vegetated, open terrain. To review vertical accuracy results, please see the work package report

Breaklines

Based on this review, the USGS-NGTOC **ACCEPTS** the Breaklines.

Breaklines are visually reviewed in conjunction with the bare earth DEM for spatial and geometric accuracy. Breaklines are confirmed to be three dimensional (3D) features and that elevations are at or just below the immediately surrounding terrain. Single- and double-line drainages are reviewed to ensure downstream flow. The USGS recognizes that differences in collection methodology, resampling techniques, and other factors that are unique to proprietary production do occur, and these will result in minor horizontal and vertical differences between breaklines derived on the fly.

Error Type	Subtype	Quantity
Breakline Enforcement	None	0

Dictionary Description: Appears as though the breakline was not enforced to the water feature, bridge, island, or structure correctly.

Reporting Metadata

Based on this review, the USGS-NGTOC **ACCEPTS** the Reporting Metadata.

Reports from the contractor, including calibration, collection, and processing methods, are reviewed for accurate information. For more information, please see the work units metadata.

FGDC XML Metadata

Based on this review, the USGS-NGTOC **ACCEPTS** the FGDC XML Metadata.

CSGDM .xml metadata are parsed using the USGS Geospatial Metadata Validation Service and reviewed for accurate information. CSDGM is maintained by the Federal Geographic Data Committee (FGDC).

Spatial Metadata

Based on this review, the USGS-NGTOC **ACCEPTS** the Spatial Metadata.

Spatial metadata from the contractor, including raster and vector datasets, are evaluated together with pertinent deliverables for geometric fidelity and attribution accuracy. For more information, please see the work units metadata.

Other

Based on this review, the USGS-NGTOC **ACCEPTS** the Other.

DEM

Based on this review, the USGS-NGTOC **ACCEPTS** the DEM.

Visual review is performed on .tif bare earth rasters at a 1:5,000 or larger viewing scale to validate point cloud geometry, raster processing methodology, point classification, and breaklines. Comprehensive review is completed to ensure consistency and accuracy across all files. For additional information, please see this work units metadata folder.

Error Type	Subtype	Quantity
Export	Void	0

Dictionary Description: A specific type of interpolation error that is an area lacking data in the DEM, not due to point misclassifications or data voids in the point cloud.

Pointcloud

Based on this review, the USGS-NGTOC **ACCEPTS** the Pointcloud.

Visual and statistical review is performed on classified .las files to validate adherence to contracted specifications. A comprehensive review is completed to ensure consistency and accuracy across all files, including the spatial reference system. Classification verification is limited to the minimum required by applicable Lidar Base Specification. Classifications beyond the minimum are not verified by USGS. LAS files are evaluated to ensure the public header block, point data records, and variable/extended variable length records are correctly populated. For additional information, please see the work units metadata folder.