

WROC 2015 - Douglas Co. St. Louis River QL2 LiDAR (2015-16); Swath

Thumbnail Not Available

Tags

elevation, Lidar, Hydrology, Point classification

Summary

This data, along with its derivatives, is part of a watershed stressor and habitat assessment in the larger Nemadji River watershed. This data was produced all from lidar information as of 2015.

Description

The St. Louis River Area of Concern project area covers approximately 308 square miles. Lidar data was acquired with a nominal point spacing (NPS) of 0.7 meters. Project specifications are based on the U.S. Geological Survey National Geospatial Program Base LiDAR Specification, Version 1.0. The data was developed based on a horizontal projection/datum of Coordinate System: NAD_1983_UTM_Zone_15N, Meters and vertical datum of NAVD1988 (GEOID12A), Meters.

LiDAR data was acquired using the Orion Optech H300 sensor. Collection occurred from October 17-19, 2015, while no snow was on the ground and rivers were at or below normal levels.

Credits

There are no credits for this item.

Use limitations

None. However, temporal changes to the Earth's surface may have occurred since the acquisition of the lidar data and may no longer represent current bare earth surface conditions.

Extent

There is no extent for this item.

Scale Range

There is no scale range for this item.

ArcGIS Metadata ►

Citation ►

TITLE WROC 2015 - Douglas Co. St. Louis River QL2 LiDAR (2015-16); Swath

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Resource Details ►

CREDITS

[Hide Resource Details ▲](#)

Resource Constraints ►

CONSTRAINTS

LIMITATIONS OF USE

None. However, temporal changes to the Earth's surface may have occurred since the acquisition of the lidar data and may no longer represent current bare earth surface conditions.

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FGDC Metadata (read-only) ▼

CITATION

CITATION INFORMATION

ORIGINATOR Ayres Associates

PUBLICATION DATE unknown

TITLE

WROC 2015 - Douglas Co. St. Louis River QL2 LiDAR (2015-16); Swath

PUBLICATION INFORMATION

PUBLICATION PLACE Madison, WI

PUBLISHER Ayres Associates

DESCRIPTION

ABSTRACT

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PURPOSE

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TIME PERIOD OF CONTENT

TIME PERIOD INFORMATION

RANGE OF DATES/TIMES

BEGINNING DATE 2015-10-17

ENDING DATE 2015-10-19

CURRENTNESS REFERENCE

ground condition

STATUS

PROGRESS Complete

MAINTENANCE AND UPDATE FREQUENCY None planned

SPATIAL DOMAIN

BOUNDING COORDINATES

WEST BOUNDING COORDINATE -92.299251

EAST BOUNDING COORDINATE -91.862322

NORTH BOUNDING COORDINATE 46.752570

SOUTH BOUNDING COORDINATE 46.319511

KEYWORDS

THEME
THEME KEYWORD THESAURUS None
THEME KEYWORD elevation
THEME KEYWORD Lidar
THEME KEYWORD Hydrology
THEME KEYWORD Point classification

PLACE
PLACE KEYWORD THESAURUS None
PLACE KEYWORD Wisconsin
PLACE KEYWORD Douglas County
PLACE KEYWORD St. Louis River Area of Concern

ACCESS CONSTRAINTS

Any and all accessibility to data of or pertaining to the 2016 lidar dataset is to be determined by the Wisconsin Department of Natural Resources.

USE CONSTRAINTS

None. However, temporal changes to the Earth's surface may have occurred since the acquisition of the lidar data and may no longer represent current bare earth surface conditions.

POINT OF CONTACT

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NATIVE DATA SET ENVIRONMENT

Environment as of Metadata Creation: Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; Esri ArcGIS 10.3.1 (Build 4959) Service Pack N/A (Build N/A)

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ATTRIBUTE ACCURACY
ATTRIBUTE ACCURACY REPORT
No formal attribute accuracy tests were conducted.

LOGICAL CONSISTENCY REPORT
Spatial consistency of coverage of the 2016 St. Louis River Area of Concern project area was maintained throughout the dataset.

COMPLETENESS REPORT
Spatial consistency of coverage of the 2016 St. Louis River Area of Concern project area was maintained throughout the dataset.

POSITIONAL ACCURACY
HORIZONTAL POSITIONAL ACCURACY
HORIZONTAL POSITIONAL ACCURACY REPORT
A formal accuracy assessment of the horizontal positional information in the data set has not been conducted.

VERTICAL POSITIONAL ACCURACY

VERTICAL POSITIONAL ACCURACY REPORT

Specifications for this project require that independent checkpoints are used to test the vertical accuracy of the point cloud and DEM. The point cloud specification to be met is 19.6 cm or better at the 95% confidence level for Nonvegetated Vertical Accuracy (NVA) points. The DEM specification to be met is 19.6 cm or better at the 95% confidence level for NVA points, and 29.4cm or better at the 95th percentile for Vegetated Vertical Accuracy (VVA) points. The point cloud was tested against 25 NVA checkpoints, and reported 6.1 cm at the 95% confidence level. The DEM was tested against 25 NVA checkpoints and 20 VVA checkpoints. The DEM test results were 6.4cm at the 95% confidence level for NVA land cover types, and 28.1cm at the 95th percentile for VVA land cover types.

LINEAGE

PROCESS STEP

PROCESS DESCRIPTION

Laser point data are imported into TerraScan and a manual calibration is performed to assess the system offsets for pitch, roll, heading and scale. At this point this data is ready for analysis, classification, and filtering to generate a bare earth surface model in which the above-ground features are removed from the data set. Point clouds were created using the Optech DashMap Post Processor software. GeoCue distributive processing software was used in the creation of some files needed in downstream processing, as well as in the tiling of the dataset into more manageable file sizes. TerraScan and TerraModeler software packages were then used for the automated data classification, manual cleanup, and bare earth generation. Project specific macros were developed to classify the ground and remove side overlap between parallel flight lines.

PROCESS DATE Unknown

Hide Data Quality ▲

HORIZONTAL COORDINATE SYSTEM DEFINITION

PLANAR

MAP PROJECTION

MAP PROJECTION NAME NAD 1983 UTM Zone 15N

TRANSVERSE MERCATOR

SCALE FACTOR AT CENTRAL MERIDIAN 0.9996

LONGITUDE OF CENTRAL MERIDIAN -93.0

LATITUDE OF PROJECTION ORIGIN 0.0

FALSE EASTING 500000.0

FALSE NORTHING 0.0

PLANAR COORDINATE INFORMATION

PLANAR COORDINATE ENCODING METHOD coordinate pair

COORDINATE REPRESENTATION

ABSCISSA RESOLUTION 0.000000002220024164500956

ORDINATE RESOLUTION 0.000000002220024164500956

PLANAR DISTANCE UNITS meter

GEODETTIC MODEL

HORIZONTAL DATUM NAME D North American 1983

ELLIPSOID NAME GRS 1980

SEMI-MAJOR AXIS 6378137.0

DENOMINATOR OF FLATTENING RATIO 298.257222101

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DISTRIBUTOR

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METADATA DATE 2016-07-06
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METADATA STANDARD NAME FGDC Content Standard for Digital Geospatial
Metadata
METADATA STANDARD VERSION FGDC-STD-001-1998

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