Lower Rio Puerco March 2010 channel bank locations, mapped from March 2010 LiDAR DTM shaded relief images

Metadata:

- Identification Information
- Data Quality Information
- Spatial Data Organization Information
- Spatial Reference Information
- Entity and Attribute Information
- Distribution Information
- Metadata Reference Information

Identification Information:

Citation:
Citation Information:
Originator: Eleanor R. Griffin
Publication Date: 02/09/2016
Title: Lower Rio Puerco March 2010 channel bank locations, mapped from March 2010 LiDAR DTM shaded relief images
Geospatial Data Presentation Form: Vector Digital Data Set (Polyline)
Larger Work Citation:
Citation Information:
Originator: Eleanor R. Griffin
Originator: Jonathan M. Friedman
Title: Contributions of moderately low flows and large floods to geomorphic change in the Rio Puerco Arroyo, New Mexico
Edition: 2016
Geospatial Data Presentation Form: Publication (Other)
Series Information:
Series Name: Fall Field Conference Guidebook
Publication Information:
Publication Place: Socorro, NM
Publisher: New Mexico Geological Society

Description:
Abstract:
This dataset contains Rio Puerco channel bank locations mapped from shaded relief images created from March 2010 LiDAR digital terrain models (DTMs). The LiDAR DTMs were derived from data collected during an aerial survey conducted by the National Center for Airborne Laser Mapping (NCALM) on March 26, 2010 (http://dx.doi.org/10.5069/G9ZW1HVC). The mapping reach extends from the confluence with the Rio San Jose 25 km down-valley. The NM Highway 6 crossing of the Rio Puerco arroyo is located at valley km (vk) 12.0. The reach includes a 11.5-

km segment upstream from Highway 6 that was sprayed with an herbicide by helicopter in September 2003 for the purpose of saltcedar control and a 13-km long untreated reach downstream. Methods are described in the following paper: Vincent, K.R., Friedman, J.M., and Griffin, E.R., 2009, Erosional consequence of saltcedar control: Environmental Management, v. 44, p. 218-227. http://dx.doi.org/10.1007/s00267-009-9314-8

Purpose:

Mapping was peformed for the purpose of determining change in channel width from November 2006 to March 2010 and from March 2010 - January/February 2014.

Time Period of Content:

Time Period Information:

Single Date/Time:

Calendar Date: 03/26/2010

Currentness Reference:

ground condition

Status:

Progress:

Complete

Spatial Domain:

Description of Geographic Extent:

Bounding Coordinates:

West Bounding Coordinate: -107.031353761
East Bounding Coordinate: -106.910373574
North Bounding Coordinate: 34.887479223
South Bounding Coordinate: 34.724537444

Keywords:

Theme:

Theme Keyword Thesaurus: ISO 19115 Topic Category
Theme Keyword: geoscientificInformation

Theme:

Theme Keyword Thesaurus: None
Theme Keyword: fluvial geomorphology
Theme Keyword: channel change
Theme Keyword: bank erosion
Theme Keyword: channel deposition
Theme Keyword: floods

Place:

Place Keyword Thesaurus: None
Place Keyword: Rio Puerco
Place Keyword: New Mexico

Access Constraints: None. Please see 'Distribution Info' for details.

Use Constraints:

None. Users are advised to read the data set's metadata thoroughly to understand appropriate use and data limitations.

Point of Contact:

Contact Information:

Contact Organization Primary:

Contact Organization: U.S. Geological Survey, WATER
Contact Person: Eleanor R Griffin

Contact Position: Research Hydrologist

Contact Address:

Address Type: mailing address
Address: 3215 Marine St, Bldg 6
City: Boulder
State or Province: CO
Postal Code: 80309
Contact Voice Telephone: 303-541-3041
Contact Facsimile Telephone: 303-541-3084
Contact Electronic Mail Address: egriffin@usgs.gov

Data Set Credit:

Acquisition and processing of the March 2010 LiDAR DTM was completed by the National Center for Airborne Laser Mapping (NCALM - http://www.ncalm.org). NCALM funding provided by NSF's Division of Earth Sciences Instrumentation and Facilities Program, EAR-1043051. http://dx.doi.org/10.5069/G9ZW1HVC

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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Data Quality Information:

Attribute Accuracy:

Attribute Accuracy Report:

No formal attribute accuracy tests were conducted.

Logical Consistency Report:

Locations of linear and point features as well as point elevations interpolated from the DTMs were checked against high-precision GPS data collected in April 2010. Vertical differences between the high-precision GPS-surveyed elevation and elevation interpolated from the DTM at the same horizontal location were found to be <0.10 m for 269 points.

Completeness Report:

Data set is considered complete for the information presented, as described in the abstract. Users are advised to read the rest of the metadata record carefully for additional details.

Positional Accuracy:

Horizontal Positional Accuracy:

Horizontal Positional Accuracy Report:

Location of the top of the bank mapped from the 2010 LiDAR DTM shaded relief images has been compared to top of the bank determined from channel cross sections surveyed using high-precision GPS and found to be within +/- 2 m on average.

Vertical Positional Accuracy:

Vertical Positional Accuracy Report:

This data set does not contain elevation data.

Lineage:

Source Information:

Source Citation:

Citation Information:

Originator: National Center for Airborne Laser Mapping (NCALM)
Publication Date: 2011
Title: Rio Puerco River, NM: Study of overbank flood dynamics
Geospatial Data Presentation Form: LiDAR DTM

Publication Information:
Publication Place: La Jolla, CA
Publisher: OpenTopography
Online Linkage: http://dx.doi.org/10.5069/G9ZW1HVC
Type of Source Media: Digital and/or Hardcopy Resources
Source Time Period of Content:
Time Period Information:
Single Date/Time:
Calendar Date: 03/26/2010
Source Currentness Reference:
ground condition
Source Citation Abbreviation:
March 2010 LiDAR DTM
Source Contribution:
Source information used in support of the development of the data set.
Process Step:
Process Description:
Development of the data set by the agency / individuals identified in the 'Originator' element in the Identification Info section of the record.
Process Date: Unknown

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Spatial Data Organization Information:

Direct Spatial Reference Method:

Vector
Point and Vector Object Information:
SDTS Terms Description:
SDTS Point and Vector Object Type: String
Point and Vector Object Count: 50

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Spatial Reference Information:

Horizontal Coordinate System Definition:
Planar:
Grid Coordinate System:
Grid Coordinate System Name: Universal Transverse Mercator
Universal Transverse Mercator:
UTM Zone Number: 13
Transverse Mercator:
Scale Factor at Central Meridian: 0.9996
Longitude of Central Meridian: -105.0
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: 0.6096
Ordinate Resolution: 0.6096
Planar Distance Units: Meter
Geodetic 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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Entity and Attribute Information:

Detailed Description:
Entity Type:
Entity Type Label: Attribute Table
Entity Type Definition:
Table containing attribute information associated with the data set.
Entity Type Definition Source:
Producer defined
Attribute:
Attribute Label: Length_m
Attribute Definition:
Arc length calculated in ArcGIS (meters).
Attribute Definition Source:
Producer defined
Attribute Domain Values:
Range Domain:
Range Domain Minimum: 2.012
Range Domain Maximum: 5649.043
Attribute Units of Measure: meters
Overview Description:
Entity and Attribute Overview:
The entity and attribute information provided here describes the tabular data associated with the data set. Please review the detailed descriptions that are provided (the individual attribute descriptions) for information on the values that appear as fields/table entries of the data set.
Entity and Attribute Detail Citation:
The entity and attribute information was generated by the individual and/or agency identified as the originator of the data set. Please review the rest of the metadata record for additional details and information.

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Distribution Information:

Distribution Liability:
Distributor assumes no liability for misuse of data.
Standard Order Process:
Digital Form:
Digital Transfer Information:
Format Name: Vector Digital Data Set (Polyline)
Fees: None. No fees are applicable for obtaining the data set.

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Metadata Reference Information:

Metadata Date: 02/09/2016
Metadata Standard Name: FGDC Content Standard for Digital Geospatial Metadata
Metadata Standard Version: FGDC-STD-001-1998

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