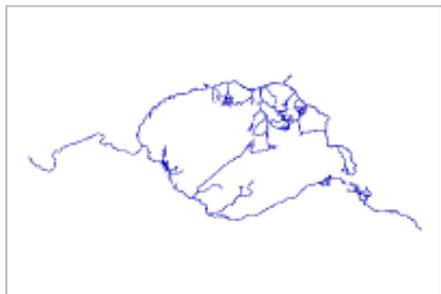


Streams within One Mile Overland and Downslope of Abandoned Uranium Mines



Data format: Shapefile

File or table name: NN_Drainage_HR_AUM

Coordinate system: Geographic

Theme keywords: Streams, Stream Courses, Perennial Streams, Intermittent Streams

Abstract: This line shapefile documents streams within one mile overland and downslope of Abandoned Uranium Mines (AUMs) for a distance of at least fifteen miles. The primary source for these stream courses is the high resolution (1:24,000 scale) USGS National Hydrography Dataset (NHD), and is augmented by streams automated from USGS 7.5 minute topographic maps (1:24,000 scale Digital Raster Graphics - DRGs) and USGS Digital Orthophoto Quarter Quads (DOQQs). This dataset covers the six Abandoned Uranium (AUM) Region of the Navajo Nation.

FGDC and ESRI Metadata:

- [Identification Information](#)
- [Data Quality Information](#)
- [Spatial Data Organization Information](#)
- [Spatial Reference Information](#)
- [Entity and Attribute Information](#)
- [Distribution Information](#)
- [Metadata Reference Information](#)
- [Geoprocessing History](#)
- [Binary Enclosures](#)

Metadata elements shown with blue text are defined in the Federal Geographic Data Committee's (FGDC) [Content Standard for Digital Geospatial Metadata \(CSDGM\)](#). Elements shown with green text are defined in the [ESRI Profile of the CSDGM](#). Elements shown with a green asterisk (*) will be automatically updated by ArcCatalog. ArcCatalog adds hints indicating which FGDC elements are mandatory; these are shown with gray text.

Identification Information:

Citation:

Citation information:

Originators: TerraSpectra Geomatics

Title:

Streams within One Mile Overland and Downslope of Abandoned Uranium Mines

***File or table name:** NN_Drainage_HR_AUM

Publication date: July 2007

***Geospatial data presentation form:** vector digital data

Publication information:**Publication place:** San Francisco, CA**Publisher:** U.S. Environmental Protection Agency, Region 9, Superfund Program***Online linkage:**\\Terra_dc\Navajo\NAUM_NN_Summary\DB\Water\NN_Drainage_HR_AUM.shp**Description:****Abstract:**

This line shapefile documents streams within one mile overland and downslope of Abandoned Uranium Mines (AUMs) for a distance of at least fifteen miles. The primary source for these stream courses is the high resolution (1:24,000 scale) USGS National Hydrography Dataset (NHD), and is augmented by streams automated from USGS 7.5 minute topographic maps (1:24,000 scale Digital Raster Graphics - DRGs) and USGS Digital Orthophoto Quarter Quads (DOQQs). This dataset covers the six Abandoned Uranium (AUM) Region of the Navajo Nation.

Purpose:

This dataset was developed to support the U.S. Environmental Protection Agency (USEPA) in its undertaking of an extensive scientific study to determine if abandoned uranium mines (AUM) and related mine features pose a significant risk to human health and the environment, and to identify areas requiring action to reduce risk for the Navajo Nation.

Supplemental information:

This line shapefile can be used in conjunction with the polygon shapefile NN_WaterBody_NHDH.shp that maps high resolution NHD waterbodies that intersect these mapped high resolution drainages.

Language of dataset:** en**Time period of content:*Time period information:****Single date/time:****Calendar date:** July 2007**Currentness reference:**

publication date

Status:**Progress:** Complete**Maintenance and update frequency:** None planned**Spatial domain:****Bounding coordinates:*****West bounding coordinate:** -113.780052***East bounding coordinate:** -106.898012***North bounding coordinate:** 37.425038***South bounding coordinate:** 34.712400**Local bounding coordinates:*****Left bounding coordinate:** -113.780052***Right bounding coordinate:** -106.898012***Top bounding coordinate:** 37.425038***Bottom bounding coordinate:** 34.712400

***Minimum altitude:** 0.000000

***Maximum altitude:** 0.000000

Keywords:

Theme:

Theme keywords: Streams, Stream Courses, Perennial Streams, Intermittent Streams

Theme keyword thesaurus: None

Place:

Place keywords: Navajo Nation, Arizona, Colorado, New Mexico, Utah, United States

Place keyword thesaurus: None

Access constraints: None

Use constraints:

This line shapefile documents for the six Abandoned Uranium Mine (AUM) Regions of the Navajo Nation streams within one mile overland and downslope of Abandoned Uranium Mines as documented in the shapefile NN_AUM_Poly_Surf.shp. The streams captured in this dataset are not necessarily the only streams overland and downslope of AUMs. They are the stream courses documented by the sources.

Use of this data generally requires computer workstations with ESRI's Arc/Info (8.x or above), ArcGIS (8.x or above), or ArcView (3.x), or some other GIS or CAD software that is capable of reading or converting this dataset.

The data are provided "as-is," without warranty of any kind, either express or implied.

These data have been compiled as part of a desktop project to collect existing spatial data to support the study of Navajo abandoned uranium mines. No field verifications were undertaken as part of this desktop study.

Point of contact:

Contact information:

Contact organization primary:

Contact organization: U. S. Environmental Protection Agency, Region 9, Superfund Program

Contact address:

Address type: mailing and physical address

Address:

75 Hawthorne St (SFD 8-2)

City: San Francisco

State or province: CA

Postal code: 94105

Country: USA

Contact voice telephone: 415-972-3167

Security information:

Security classification system: None

***Native dataset format:** Shapefile

***Native data set environment:**

Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.1.0.780

[Back to Top](#)

Data Quality Information:

Logical consistency report:

No logical consistency tests have been performed.

Completeness report:

This line shapefile documents for the six Abandoned Uranium Mine (AUM) Regions of the Navajo Nation streams within one mile overland and downslope of Abandoned Uranium Mines as documented in the shapefile NN_AUM_Poly_Surf.shp. The streams captured in this dataset are not necessarily the only streams overland and downslope of AUMs. They are the stream courses documented by the sources.

Positional accuracy:

Horizontal positional accuracy:

Horizontal positional accuracy report:

The primary source for these stream courses is the high resolution (1:24,000 scale) USGS National Hydrography Dataset (NHD), and is augmented by streams automated from USGS 7.5 minute topographic maps (1:24,000 scale) and USGS Digital Orthophoto Quarter Quads (DOQQs; 1-meter resolution).

Lineage:

Source information:

Source citation abbreviation:

NN_Flowline_NHDH.shp

Source contribution:

High resolution NHDH stream courses compiled for the Navajo Nation.

Process step:

Process description:

From the NN_Flowline_NHDH.shp, streams that did not drain AUMs were deleted. Streams that drain AUMs were identified and saved by visually inspecting the spatial relationship of each AUM with nearby streams using USGS DOQQs or DRGs to determine which streams are draining each AUM. Streams were maintained until they flowed completely off the Navajo Nation and for at least 15 miles.

From the thirteen thematic attributes within this NN_Flowline_NHDH.shp, only seven were maintained, including: OBJECTID, ComID, GNIS_ID, GNIS_Name, ReachCode, FCode, and FType. ComID and ReachCode maintain the ability to link to NHD geodatabases, and GNIS_ID maintains the ability to link to the GNIS database. GNIS_Name provides the name for features from the GNIS database. A "Source" field was added, and all stream segments were coded "NHDH" dataset.

NHDH data was augmented with streams automated from 1:24,000 scale USGS topographic maps (Digital Raster Graphic or DRG data). Only stream segments that extend beyond NHD data to within one mile downslope of an AUM were added. These stream segments were coded with the value, "DRG".

In some cases NN_Flowline_NHDH.shp stream courses were discontinuous. USGS Digital Orthophoto Quarter Quads (DOQQs, 1-meter resolution) were photointerpreted and stream segments were automated to complete the discontinuous stream courses. These stream segments were coded with the value, "DOQQ".

Process software and version: ESRI ArcGIS 8.3

Process date: July 2007

Source used citation abbreviation:

NN_Flowline_NHDDH.shp

Process contact:

Contact information:

Contact organization primary:

Contact organization: TerraSpectra Geomatics

Contact address:

Address type: mailing and physical address

Address:

2700 E Sunset Rd, Ste A-10

City: Las Vegas

State or province: NV

Postal code: 89120

Country: USA

Contact voice telephone: 702-795-8254

[Back to Top](#)

Spatial Data Organization Information:

***Direct spatial reference method:** Vector

Point and vector object information:

SDTS terms description:

***Name:** NN_Drainage_HR_AUM

***SDTS point and vector object type:** String

***Point and vector object count:** 8390

ESRI terms description:

***Name:** NN_Drainage_HR_AUM

***ESRI feature type:** Simple

***ESRI feature geometry:** Polyline

***ESRI topology:** FALSE

***ESRI feature count:** 8390

***Spatial index:** FALSE

***Linear referencing:** TRUE

[Back to Top](#)

Spatial Reference Information:

Horizontal coordinate system definition:

Coordinate system name:

***Geographic coordinate system name:** GCS_North_American_1983

Geographic:

***Latitude resolution:** 0.000000

- *Longitude resolution: 0.000000
- *Geographic coordinate units: Decimal degrees

Geodetic model:

- *Horizontal datum name: North American Datum of 1983
- *Ellipsoid name: Geodetic Reference System 80
- *Semi-major axis: 6378137.000000
- *Denominator of flattening ratio: 298.257222

Vertical coordinate system definition:

Altitude system definition:

- *Altitude resolution: 0.000001
- *Altitude encoding method: Explicit elevation coordinate included with horizontal coordinates

[Back to Top](#)

Entity and Attribute Information:

Detailed description:

- *Name: NN_Drainage_HR_AUM

Entity type:

- *Entity type label: NN_Drainage_HR_AUM
- *Entity type type: Feature Class
- *Entity type count: 8390

Attribute:

- *Attribute label: FID
- *Attribute alias: FID
- *Attribute definition: Internal feature number.
- *Attribute definition source: ESRI

- *Attribute type: OID
- *Attribute width: 4
- *Attribute precision: 0
- *Attribute scale: 0

Attribute domain values:

- *Unrepresentable domain: Sequential unique whole numbers that are automatically generated.

Attribute:

- *Attribute label: Shape
- *Attribute alias: Shape
- *Attribute definition: Feature geometry.
- *Attribute definition source: ESRI
- *Attribute type: Geometry
- *Attribute width: 0

*Attribute precision: 0

*Attribute scale: 0

Attribute domain values:

*Unrepresentable domain:

Coordinates defining the features.

Attribute:

*Attribute label: OBJECTID

*Attribute alias: OBJECTID

*Attribute type: Number

*Attribute width: 9

Attribute:

*Attribute label: ComID

*Attribute alias: ComID

Attribute definition:

common identifier

*Attribute type: Number

*Attribute width: 9

Attribute:

*Attribute label: GNIS_ID

*Attribute alias: GNIS_ID

Attribute definition:

identifier that maintains the link to the Geographic Names Information System

*Attribute type: String

*Attribute width: 10

Attribute:

*Attribute label: GNIS_Name

*Attribute alias: GNIS_Name

Attribute definition:

Geographic Names Information System feature name

*Attribute type: String

*Attribute width: 65

Attribute:

*Attribute label: ReachCode

*Attribute alias: ReachCode

Attribute definition:

uniquely identifies each reach

*Attribute type: String

*Attribute width: 14

Attribute:

*Attribute label: FType

*Attribute alias: FType

*Attribute type: Number

*Attribute width: 9

Attribute:

***Attribute label:** FCode

***Attribute alias:** FCode

Attribute definition:

unique five-digit feature code, identifying feature type

***Attribute type:** Number

***Attribute width:** 9

Attribute:

***Attribute label:** Source

***Attribute alias:** Source

Attribute definition:

source of the stream/flowline segment

***Attribute type:** String

***Attribute width:** 15

Overview description:**Dataset overview:**

There are 8390 stream segment features.

Entity and attribute overview:

There are five thematic attributes:

COMID - The common identifier is a 10-digit integer value that uniquely identifies each feature or reach. Common identifiers are the basis for relating within the NHD database.

GNIS_ID - An identifier that maintains the link to the Geographic Names Information System.

GNIS_Name - Geographic Names Information System feature name.

ReachCode - A reach is a continuous, unbroken stretch or expanse of surface water. A reach code uniquely identifies each reach.

FCode - A unique five-digit feature code. The general format of the feature code is as follows: FFFCC, in which FFF is the three-digit code for a feature type. CC is the two-digit code for a combination of values for characteristics associated with a feature type. If only the feature type is identified, these last two digits are assigned the value "0".

FType - Feature Type is the broader category above FCode. The general format of the feature code is as follows: FFF that is three-digit code. This is the same FFF in the Feature Code FFFCC.

Source - the source of the stream or flowline segment

- NHDH - USGS medium resolution NHD flowline (1:100,000 scale)
- DRG - automated from USGS 7.5 minute topographic map (1:24,000 scale)
- DOQQ - automated from USGS Digital Orthophoto Quarter Quad (1m resolution)

NOTE: The NULL value for COMID and FCode is "0". The attributes GNIS_ID, GNIS_Name, and ReachCode are empty when they have no value.

The NHD data are described in the following Acrobat PDF files included in the DB/Water directory:

chp1_data_users_guide.pdf - users guide

NHDinGEO_FCodes_by_layer.pdf - FCode and FType descriptions

[Back to Top](#)

Distribution Information:

Distributor:

Contact information:

Contact organization primary:

Contact organization: U. S. Environmental Protection Agency, Region 9, Superfund Records Center

Contact address:

Address type: mailing address

Address:

95 Hawthorne St (SFD-7C)

City: San Francisco

State or province: CA

Postal code: 94105

Country: USA

Contact voice telephone: 415-536-2033

Resource description: NN_Drainage_HR_AUM

Distribution liability:

Although these data have been processed successfully on a computer system for the USEPA, no warranty expressed or implied is made by the USEPA or its contractors regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. No responsibility is assumed by USEPA or its contractors in the use of these data.

Standard order process:

Digital form:

Digital transfer information:

***Transfer size:** 6.391

***Dataset size:** 6.391

Custom order process:

Contact the USEPA for a custom order.

Technical prerequisites:

Use of this data generally requires computer workstations with ESRI's Arc/Info (8.x or above), ArcGIS (8.x or above), or ArcView (3.x), or some other GIS or CAD software that is capable of reading or converting this dataset.

Available time period:

Time period information:

Single date/time:

[Back to Top](#)

Metadata Reference Information:

***Metadata date:** 20070806

***Language of metadata:** en

Metadata contact:

Contact information:

Contact person primary:

Contact person: Andrew Bain

Contact organization: U. S. Environmental Protection Agency, Region 9,
Superfund Program

Contact position: Project Manager

Contact address:

Address type: mailing and physical address

Address:

75 Hawthorne St (SFD 8-2)

City: San Francisco

State or province: CA

Postal code: 94105

Country: USA

Contact voice telephone: 415-972-3167

***Metadata standard name:** FGDC Content Standards for Digital Geospatial Metadata

***Metadata standard version:** FGDC-STD-001-1998

***Metadata time convention:** local time

Metadata access constraints: None.

Metadata use constraints:

None.

Metadata security information:

Metadata security classification system: None

Metadata extensions:

***Online linkage:** <http://www.esri.com/metadata/esriprof80.html>

***Profile name:** ESRI Metadata Profile

[Back to Top](#)

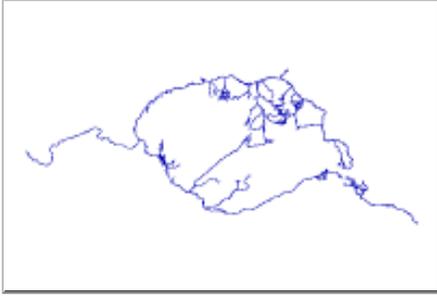
Geoprocessing History:

[Back to Top](#)

Binary Enclosures:

Thumbnail:

Enclosure type: Picture



[Back to Top](#)