

## Glacier National Park, Accuracy Assessment Metadata

### Identification\_Information:

#### Citation:

##### Citation\_Information:

Originator: U.S. Geological Survey, Upper Midwest Environmental Sciences Center, 2630 Fanta Reed Road, La Crosse, Wisconsin 54603

Publication\_Date: 2007

Title: Accuracy Assessment Points for Glacier National Park Vegetation Mapping Project

Geospatial\_Data\_Presentation\_Form: vector digital data

##### Series\_Information:

Series\_Name: USGS-NPS Vegetation Mapping Program

Issue\_Identification: Waterton-Glacier International Peace Park Vegetation Mapping Project

##### Publication\_Information:

Publication\_Place: Denver, Colorado

Publisher: U.S. Geological Survey, Center for Biological Informatics

Other\_Citation\_Details: A detailed report on how this data set was created is available to download from the Vegetation Mapping Program's Web site. The report discusses methods and results, and includes plant community descriptions and dichotomous keys, map classification and descriptions, and Accuracy Assessment contingency tables.

Online\_Linkage: <http://biology.usgs.gov/npsveg/ftp/vegmapping/glac/glacaa.zip>

### Description:

**Abstract:** The accuracy assessment (AA) for the Waterton-Glacier International Peace Park (WGIPP) was performed to estimate the attribute accuracy of the 1999 vegetation data set for Glacier National Park (Glacier). The 1999 mapping project was performed to describe Glacier's vegetation using the National Vegetation Classification (NVC) scheme. The AA was conducted to locate and document potential thematic errors (i.e., the assignment of an incorrect map class), specifically user's accuracy (suitability for a particular application) and producer's accuracy (conformance to production standards). The AA was performed only on map classes representing NVC natural/semi-natural vegetation types. The Glacier vegetation map was determined to have an overall AA of 87.9% (Kappa index of 87.4%). More detailed results are presented in the WGIPP project report, through the series of contingency tables (<http://biology.usgs.gov/npsveg/glac/index.html>). The geographic information system (GIS) data set was developed to show the geographic locations of the vegetation plots which were used during AA project. The data set's attribute table contains background information on each site's id code, location, sampling date, and NVC level 1, 2, and 3 codes and descriptions. The GIS shapefile contains point data features, projected to Universal Transverse Mercator zone 12 mapping coordinates, North American Datum 1983.

**Purpose:** The USGS-NPS Vegetation Mapping Program (VMP) is a cooperative effort by the U.S. Geological Survey (USGS) and the National Park Service (NPS) to classify, describe, and map existing vegetation of national park units for the Natural Resource Inventory and Monitoring Program. The goals of the WGIPP vegetation mapping project were to (1) adequately describe and map plant communities of WGIPP and (2) provide the NPS Inventory and Monitoring Program, resource managers, and biological researchers with useful baseline vegetation information.

### Time\_Period\_of\_Content:

#### Time\_Period\_Information:

##### Range\_of\_Dates/Times:

Beginning\_Date: 20030609

Ending\_Date: 20051004

Currentness\_Reference: ground condition

### Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

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Spatial\_Domain:

Description\_of\_Geographic\_Extent: Glacier National Park and environs

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -114.386180

East\_Bounding\_Coordinate: -113.226941

North\_Bounding\_Coordinate: 49.003969

South\_Bounding\_Coordinate: 48.241390

Keywords:

Theme:

Theme\_Keyword\_Thesaurus: none

Theme\_Keyword: vegetation plot

Theme\_Keyword: accuracy assessment

Theme\_Keyword: USGS-NPS Vegetation Mapping Program

Theme\_Keyword: Waterton-Glacier International Peace Park

Theme\_Keyword: Glacier National Park

Theme\_Keyword: National Vegetation Classification

Place:

Place\_Keyword\_Thesaurus: none

Place\_Keyword: Glacier National Park

Place\_Keyword: Waterton-Glacier International Peace Park

Place\_Keyword: United States of America

Place\_Keyword: Montana

Place\_Keyword: Flathead County

Place\_Keyword: Glacier County

Taxonomy:

Keywords/Taxon:

Taxonomic\_Keyword\_Thesaurus: None

Taxonomic\_Keywords: Standardized National Vegetation Classification System

Taxonomic\_Keywords: vegetation classification

Taxonomic\_Keywords: alliance

Taxonomic\_Keywords: community association

Taxonomic\_Classification:

Taxon\_Rank\_Name: Kingdom

Taxon\_Rank\_Value: Plantae

Access\_Constraints: none

Use\_Constraints: none

Point\_of\_Contact:

Contact\_Information:

Contact\_Organization\_Primary:

Contact\_Organization: USGS BRD Center for Biological Informatics

Contact\_Person: USGS-NPS Vegetation Mapping Program Coordinator

Contact\_Address:

Address\_Type: mailing and physical address

Address: Denver Federal Center, Building 810, Room 8000, MS 302

City: Denver

State\_or\_Province: Colorado

Postal\_Code: 80225

Contact\_Voice\_Telephone: (303) 202-4220

Contact\_Facsimile\_Telephone: 303-202-4219

Contact\_Electronic\_Mail\_Address: gs-b-npsveg@usgs.gov

Data\_Set\_Credit: UMESC Resource Mapping and Spatial Analysis Team

Native\_Data\_Set\_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI

ArcCatalog 9.2.2.1350

Data\_Quality\_Information:

Attribute\_Accuracy:

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**Attribute\_Accuracy\_Report:** Several accuracy checks were made against the automated data and the original reports or data sheets, during and after data entry.

**Logical\_Consistency\_Report:** The center of each accuracy assessment plot was estimated using a global positioning system (GPS) receiver or topographic map. The mapping coordinates were recorded on data sheets, which were later entered into a digital database. The database was converted into a geographic information system (GIS) data set, containing point features.

**Completeness\_Report:** Data forms were filled out for each vegetation plot sampled. Each set of data sheets had a data record recorded for that site in the GIS data set.

**Positional\_Accuracy:**

**Horizontal\_Positional\_Accuracy:**

**Horizontal\_Positional\_Accuracy\_Report:** The locations of the vegetation plots were recorded using global positioning system (GPS) receivers. If a GPS reading wasn't possible, the location of the vegetation plot was estimated using a topographic map.

**Lineage:**

**Source\_Information:**

**Source\_Citation:**

**Citation\_Information:**

Originator: Waterton-Glacier International Peace Park Vegetation Mapping Project

Originator: U.S. Geological Survey, Center for Biological Informatics

Originator: U.S. Geological Survey, Upper Midwest Environmental Sciences Center

Originator: National Park Service, Glacier National Park

Originator: Parks Canada, Waterton Lakes National Park

Originator: NatureServe

Originator: Montana Natural Heritage Program

**Publication\_Date:** 2007

**Title:** Final Vegetation Classification of Waterton-Glacier IPP

**Geospatial\_Data\_Presentation\_Form:** database

**Publication\_Information:**

**Publication\_Place:** Denver, Colorado

**Publisher:** U.S. Geological Survey

**Other\_Citation\_Details:** Map classification developed specifically for the Waterton-Glacier International Peace Park Vegetation Mapping Project. Includes crosswalk to the National Vegetation Classification System floristic and physiognomic levels (names and codes), NatureServe Ecological Systems, and U.S. Geological Survey Land Use and Land Cover Classification System (Level 2). The final report for this mapping project contains a detailed listing of this classification scheme, in Appendix I, Final Vegetation Classification of Waterton-Glacier IPP.

**Online\_Linkage:** <http://biology.usgs.gov/npsveg/glac/index.html>

**Type\_of\_Source\_Media:** database

**Source\_Time\_Period\_of\_Content:**

**Time\_Period\_Information:**

**Single\_Date/Time:**

**Calendar\_Date:** 1999

**Source\_Currentness\_Reference:** ground condition

**Source\_Citation\_Abbreviation:** WGIPP vegetation classification

**Source\_Contribution:** Map classification defining polygon data (vegetation and general land cover).

**Source\_Information:**

**Source\_Citation:**

**Citation\_Information:**

Originator: National Spatial Data Infrastructure, Federal Geographic Data Committee, Vegetation Subcommittee

**Publication\_Date:** 199706

**Title:** National Vegetation Classification Standard (1997)

**Geospatial\_Data\_Presentation\_Form:** online document

**Series\_Information:**

**Series\_Name:** Standards

**Issue\_Identification:** Vegetation Classification and Information Standards

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Publication\_Information:

Publication\_Place: Reston, Virginia

Publisher: Federal Geographic Data Committee

Other\_Citation\_Details: Federal Geographic Data Committee. 1997. Vegetation classification standard, FGDC-STD-005.

Online\_Linkage: <http://www.fgdc.gov/standards/projects/FGDC-standards-projects/vegetation>

Type\_of\_Source\_Media: online document

Source\_Time\_Period\_of\_Content:

Time\_Period\_Information:

Single\_Date/Time:

Calendar\_Date: 1997

Source\_Currentness\_Reference: ground condition

Source\_Citation\_Abbreviation: NVCS Physiognomic Classes (FGDC 1997)

Source\_Contribution: Standard vegetation classification system (physiognomic levels) used for classification structure

Source\_Information:

Source\_Citation:

Citation\_Information:

Originator: U.S. Geological Survey, Upper Midwest Environmental Sciences Center, 2630 Fanta Reed Road, La Crosse, Wisconsin 54603

Publication\_Date: 2007

Title: 1999 Glacier National Park Vegetation Map - Waterton-Glacier International Peace Park Vegetation Mapping Project

Geospatial\_Data\_Presentation\_Form: geospatial database

Series\_Information:

Series\_Name: USGS-NPS Vegetation Mapping Program

Issue\_Identification: Waterton-Glacier International Peace Park Vegetation Mapping Project

Publication\_Information:

Publication\_Place: Denver, Colorado

Publisher: U.S. Geological Survey, Center for Biological Informatics

Other\_Citation\_Details: A detailed report on how this data set was created is available on the Web. The report contains background information on how the classification scheme was developed, the aerial photographs and how they were interpreted, and the accuracy assessment project.

Online\_Linkage: <http://biology.usgs.gov/npsveg/glac/>

Source\_Scale\_Denominator: 15840

Type\_of\_Source\_Media: geospatial database

Source\_Time\_Period\_of\_Content:

Time\_Period\_Information:

Single\_Date/Time:

Calendar\_Date: 1999

Source\_Currentness\_Reference: ground condition

Source\_Citation\_Abbreviation: 1999 Veg. data for Glacier

Source\_Contribution: Used during the selection of sites to be surveyed.

Source\_Information:

Source\_Citation:

Citation\_Information:

Originator: U.S. Geological Survey

Originator: EROS Data Center

Publication\_Date: Unknown

Title: National Elevation Data (NED) - 1 Arc Second Data

Geospatial\_Data\_Presentation\_Form: digital database

Publication\_Information:

Publication\_Place: Sioux Falls, South Dakota

Publisher: EROS Data Center

Other\_Citation\_Details: The National Elevation Dataset (NED) 1 Arc Second is a raster product assembled by the U.S. Geological Survey (USGS). NED is designed to provide National elevation data in a seamless form

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with a consistent datum, elevation unit, and projection. Data corrections are made in the NED assembly process to minimize, but not eliminate, artifacts, perform edge matching, and fill sliver areas of missing data. NED has a resolution of one arc-second (approximately 30 meters) for the conterminous United States.

Online\_Linkage: <http://gisdata.usgs.gov/website/seamless/viewer.htm>

Type\_of\_Source\_Media: digital database

Source\_Time\_Period\_of\_Content:

Time\_Period\_Information:

Single\_Date/Time:

Calendar\_Date: unknown

Source\_Currentness\_Reference: publication date

Source\_Citation\_Abbreviation: 1 NED Data

Source\_Contribution: Provided elevation data for the study area.

Source\_Information:

Source\_Citation:

Citation\_Information:

Originator: National Park Service, Glacier National Park

Publication\_Date: 2007

Title: Hiking Trails in Glacier National Park, Montana (Revised 2007)

Geospatial\_Data\_Presentation\_Form: vector digital data

Publication\_Information:

Publication\_Place: West Glacier, Montana

Publisher: National Park Service, Glacier National Park

Other\_Citation\_Details: This dataset contains the current trail network within Glacier National Park, Montana. These data represent the 2006 revision to official and mapped hiking trails in Glacier. The dataset is based on the initial USGS 7.5 minute topographic mapping that was published in 1966-1968. However, since 1997 Glacier National Park staff have re-mapped 400+ miles of Glacier's 700+ mile trail network using Global Positioning Systems (GPS). Additionally, some rectification of vectors was accomplished using imagery cited in the source information contained in the data set's metadata.

Online\_Linkage: <http://nrdata.nps.gov/GLAC/glacdata/>

Source\_Scale\_Denominator: 24000

Type\_of\_Source\_Media: digital database

Source\_Time\_Period\_of\_Content:

Time\_Period\_Information:

Single\_Date/Time:

Calendar\_Date: 2007

Source\_Currentness\_Reference: publication date

Source\_Citation\_Abbreviation: hiking trails

Source\_Contribution: Provided background information on hiking trails in Glacier National Park.

Source\_Information:

Source\_Citation:

Citation\_Information:

Originator: U.S. Geological Survey-National Park Service Vegetation Mapping Program

Originator: Environmental Systems Research Institute

Originator: National Center for Geographic Information and Analysis, University of California, Santa Barbara

Originator: The Nature Conservancy

Publication\_Date: 199411

Title: Accuracy Assessment Procedures, NBS/NPS Vegetation Mapping Program

Geospatial\_Data\_Presentation\_Form: digital report

Publication\_Information:

Publication\_Place: Denver, Colorado

Publisher: U.S. Geological Survey-National Park Service Vegetation Mapping Program

Other\_Citation\_Details: The objectives of this report are to provide the theoretical framework for accuracy assessment and to make initial recommendations as well as alternative procedures for accuracy assessment of the NPS/NBS Vegetation Mapping Project. The procedures must be scientifically sound and yet practical to implement. The core recommendation is to utilize a basic procedure that is statistically rigorous and consistent with traditional methodologies. However, it is recognized that operational constraints may preclude

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a complete implementation. For this reason, some alternatives for implementing the preferred scenario are provided with the expectation that operational testing during the prototype phase of the project will be necessary to define the utility and reliability of the alternative procedures.

Online\_Linkage: [http://biology.usgs.gov/npsveg/standards/NPSVI\\_Accuracy\\_Assessment\\_Guidelines\\_ver2.pdf](http://biology.usgs.gov/npsveg/standards/NPSVI_Accuracy_Assessment_Guidelines_ver2.pdf)

Type\_of\_Source\_Media: digital report

Source\_Time\_Period\_of\_Content:

Time\_Period\_Information:

Single\_Date/Time:

Calendar\_Date: unknown

Source\_Currentness\_Reference: publication date

Source\_Citation\_Abbreviation: AA Procedures

Source\_Contribution: Procedural guidelines for conducting an accuracy assessment.

Process\_Step:

Process\_Description: Sampling efforts associated with the accuracy assessment (AA) were conducted over a three-year period. To prepare for this project it was decided that sampling should occur in phases. Phase I focused on areas that were relatively easy to access, in the northeast portion of Glacier National Park (GNP). Areas selected for Phases II and III were based on a cost-surface analysis. The cost-surface analysis modeled accessibility throughout GNP along a continuum of easy to extremely difficult to access areas. Slopes >65% were considered absolute barriers, along with perennial streams and lakes. Target areas included hiking trails, roads, campsites, and cabins. Areas where trails or roads crossed a perennial stream were considered passable. The final cumulative costs were represented using values that ranged from 0 (very easy to access) to 100 (inaccessible). Due to the difficult nature of accessing the higher values, AA vegetation plot site selection targeted areas with cumulative cost values <25. The only time when values >25 were considered, was to access and evaluate rare map classes.

Source\_Used\_Citation\_Abbreviation: AA Procedures

Source\_Used\_Citation\_Abbreviation: hiking trails

Source\_Used\_Citation\_Abbreviation: 1 NED Data

Source\_Used\_Citation\_Abbreviation: 1999 Veg. data for Glacier

Process\_Date: 2002

Process\_Step:

Process\_Description: Field crews were provided with listings of GPS coordinates of their accuracy assessment (AA) sites along with field maps. The crews navigated to their sampling sites, then established AA observation plots within the minimum mapping unit (MMU) area. A number of physical characteristics were recorded for each site (e.g., location, slope, aspect, elevation) along with land cover information (e.g., dominant and subdominant vegetation, percent cover). Detailed descriptions on how these plots were established and sampled is available in the Waterton-Glacier International Peace Park mapping project report, available online.

Source\_Used\_Citation\_Abbreviation: WGIPP vegetation classification

Source\_Used\_Citation\_Abbreviation: NVCS Physiognomic Classes (FGDC 1997)

Process\_Date: 2003 through 2005

Process\_Step:

Process\_Description: The field data were then automated, and brought into the software programs ArcView GIS version 3.3 and ArcGIS version 9.x. Information collected in the field was compared to those developed by the photo interpreters (digital data and photo overlays). Results were used to determine; spatial GPS coordinate errors, map automation errors, Unclassified vegetation type on field data sheet errors, incomplete crosswalk between map classes and vegetation type errors, questionable field calls, and inclusion errors (areas missed as they were below the minimum mapping unit). Results of this analysis are available in the Waterton-Glacier International Peace Park mapping project report, available online.

Process\_Date: 2005 through 2007

Spatial\_Data\_Organization\_Information:

Direct\_Spatial\_Reference\_Method: Vector

Point\_and\_Vector\_Object\_Information:

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: Entity point

Point\_and\_Vector\_Object\_Count: 918

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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: 12

Transverse\_Mercator:

Scale\_Factor\_at\_Central\_Meridian: 0.999600

Longitude\_of\_Central\_Meridian: -111.000000

Latitude\_of\_Projection\_Origin: 0.000000

False\_Easting: 500000.000000

False\_Northing: 0.000000

Planar\_Coordinate\_Information:

Planar\_Coordinate\_Encoding\_Method: coordinate pair

Coordinate\_Representation:

Abscissa\_Resolution: 0.000001

Ordinate\_Resolution: 0.000001

Planar\_Distance\_Units: meters

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

Entity\_and\_Attribute\_Information:

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label: GLAC\_AA

Entity\_Type\_Definition: Attribute information for the accuracy assessment plot location data for Glacier National Park.

Entity\_Type\_Definition\_Source: Waterton-Glacier International Peace Park Vegetation Mapping Project

Attribute:

Attribute\_Label: FID

Attribute\_Definition: Internal feature number. These numbers are automatically generated when a shapefile is created. They are used by the software to track individual polygon features stored in shapefiles. Most software program will not display these numbers when the data set's attribute table is displayed.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:

Attribute\_Label: Shape

Attribute\_Definition: Feature geometry.

Attribute\_Definition\_Source: ESRI

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Coordinates defining the features.

Attribute:

Attribute\_Label: AA\_SITE

Attribute\_Definition: Character string identification codes, used to identify individual sampling site.

Attribute\_Definition\_Source: Waterton-Glacier International Peace Park Vegetation Mapping Project

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Random numbers(IDs) defining the features.

Attribute:

Attribute\_Label: NVC\_1CODE

Attribute\_Definition: Character codes representing vegetation types, used to identify the primary field classification call.

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Attribute\_Definition\_Source: Waterton-Glacier International Peace Park Vegetation Mapping Project

Attribute\_Domain\_Values:

Codeset\_Domain:

Codeset\_Name: NVC Code

Codeset\_Source: National Vegetation Classification Standard

Attribute:

Attribute\_Label: NVC\_1NAME

Attribute\_Definition: Detailed descriptions of the nvc\_1code entries.

Attribute\_Definition\_Source: Waterton-Glacier International Peace Park Vegetation Mapping Project

Attribute\_Domain\_Values:

Codeset\_Domain:

Codeset\_Name: NVC Code

Codeset\_Source: National Vegetation Classification Standard

Attribute:

Attribute\_Label: NVC\_2CODE

Attribute\_Definition: Character codes representing vegetation types, used to identify the alternate field classification.

Attribute\_Definition\_Source: Waterton-Glacier International Peace Park Vegetation Mapping Project

Attribute\_Domain\_Values:

Codeset\_Domain:

Codeset\_Name: NVC Code

Codeset\_Source: National Vegetation Classification Standard

Attribute:

Attribute\_Label: NVC\_2NAME

Attribute\_Definition: Detailed descriptions of the nvc\_2code entries.

Attribute\_Definition\_Source: Waterton-Glacier International Peace Park Vegetation Mapping Project

Attribute\_Domain\_Values:

Codeset\_Domain:

Codeset\_Name: NVC Code

Codeset\_Source: National Vegetation Classification Standard

Attribute:

Attribute\_Label: NVC\_3CODE

Attribute\_Definition: Character codes representing vegetation types, used to identify field classification calls within the minimum mapping unit area of site.

Attribute\_Definition\_Source: Waterton-Glacier International Peace Park Vegetation Mapping Project

Attribute\_Domain\_Values:

Codeset\_Domain:

Codeset\_Name: NVC Code

Codeset\_Source: National Vegetation Classification Standard

Attribute:

Attribute\_Label: NVC\_3NAME

Attribute\_Definition: Detailed descriptions of the nvc\_3code entries.

Attribute\_Definition\_Source: Waterton-Glacier International Peace Park Vegetation Mapping Project

Attribute\_Domain\_Values:

Codeset\_Domain:

Codeset\_Name: NVC Code

Codeset\_Source: National Vegetation Classification Standard

Attribute:

Attribute\_Label: PROJECT

Attribute\_Definition: Name of the project the vegetation plots are associated with.

Attribute\_Definition\_Source: Waterton-Glacier International Peace Park Vegetation Mapping Project

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: Waterton-Glacier IPP Veg Map

Enumerated\_Domain\_Value\_Definition: Waterton-Glacier International Peace Park Vegetation Map

Enumerated\_Domain\_Value\_Definition\_Source: USGS-NPS VMP

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### Attribute:

Attribute\_Label: LOCATION

Attribute\_Definition: Name of the park containing the vegetation plot, written using National Park Service 4-character codes.

Attribute\_Definition\_Source: National Park Service

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: GLAC

Enumerated\_Domain\_Value\_Definition: Glacier National Park

Enumerated\_Domain\_Value\_Definition\_Source: USGS-NPS VMP

### Attribute:

Attribute\_Label: X\_EASTING

Attribute\_Definition: The east/west (longitude) coordinate of the center of the vegetation plot.

Attribute\_Definition\_Source: Waterton-Glacier International Peace Park Vegetation Mapping Project

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Coordinates defining the features.

### Attribute:

Attribute\_Label: Y\_NORTHING

Attribute\_Definition: The north/south (latitude) coordinate of the center of the vegetation plot.

Attribute\_Definition\_Source: Waterton-Glacier International Peace Park Vegetation Mapping Project

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Coordinates defining the features.

### Attribute:

Attribute\_Label: PLOT\_DATE

Attribute\_Definition: The calendar date each plot was sampled, recorded as YYYYMMDD (Y=year, M=month, and D=day).

Attribute\_Definition\_Source: Waterton-Glacier International Peace Park Vegetation Mapping Project

Attribute\_Domain\_Values:

Unrepresentable\_Domain: Dates defining the features.

Beginning\_Date\_of\_Attribute\_Values: 20030609

Ending\_Date\_of\_Attribute\_Values: 20051004

### Distribution\_Information:

#### Distributor:

##### Contact\_Information:

##### Contact\_Organization\_Primary:

Contact\_Organization: USGS BRD Center for Biological Informatics

Contact\_Person: USGS-NPS Vegetation Mapping Program Coordinator

##### Contact\_Address:

Address\_Type: mailing and physical address

Address: Denver Federal Center, Building 810, Room 8000, MS 302

City: Denver

State\_or\_Province: Colorado

Postal\_Code: 80225

Contact\_Voice\_Telephone: (303) 202-4220

Contact\_Facsimile\_Telephone: 303-202-4219

Contact\_Electronic\_Mail\_Address: gs-b-npsveg@usgs.gov

##### Resource\_Description: Downloadable Data

##### Distribution\_Liability:

The U.S. Geological Survey and the National Park Service shall not be held liable for improper or incorrect use of the data described and/or contained herein. These data and related graphics (if available) are not legal documents and are not intended to be used as such.

The information contained in these data is dynamic and may change over time. The data are not better than the original sources from which they were derived. It is the responsibility of the data user to use the data appropriately and consistent within the limitations of geospatial data in general and these data in particular. Any

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related graphics (if available) are intended to aid the data user in acquiring relevant data; it is not appropriate to use the related graphics as data.

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### Standard\_Order\_Process:

Digital\_Form:

Digital\_Transfer\_Information:

Format\_Name: HTML

Digital\_Transfer\_Option:

Online\_Option:

Computer\_Contact\_Information:

Network\_Address:

Network\_Resource\_Name: <http://biology.usgs.gov/npsveg/glac/index.html>

Access\_Instructions: Internet Access

Fees: None

### Metadata\_Reference\_Information:

Metadata\_Date: 20070718

Metadata\_Review\_Date: 20100526

Metadata\_Contact:

Contact\_Information:

Contact\_Organization\_Primary:

Contact\_Organization: USGS BRD Center for Biological Informatics

Contact\_Person: USGS-NPS Vegetation Mapping Program Coordinator

Contact\_Address:

Address\_Type: mailing and physical address

Address: Denver Federal Center, Building 810, Room 8000, MS 302

City: Denver

State\_or\_Province: Colorado

Postal\_Code: 80225

Contact\_Voice\_Telephone: (303) 202-4220

Contact\_Facsimile\_Telephone: 303-202-4219

Contact\_Electronic\_Mail\_Address: [gs-b-npsveg@usgs.gov](mailto:gs-b-npsveg@usgs.gov)

Metadata\_Standard\_Name: FGDC Biological Data Profile of the Content Standard for Digital Geospatial Metadata

Metadata\_Standard\_Version: FGDC-STD-001.1-1999

Metadata\_Extensions:

Online\_Linkage: [http://www.nbii.gov/portal/server.pt/community/fgdc\\_metadata/255](http://www.nbii.gov/portal/server.pt/community/fgdc_metadata/255)