Official Forest Service

GIS

Data Dictionary

June 2003

USDA United States Department of Agriculture

United States Forest Service

Cultural Properties

Cultural Properties includes the following layers:

- Heritage Resource Sites
- Heritage Resource Survey

Layer: Heritage Resource Sites

The Heritage Resource Sites layer contains the following coverages:

- hrtgsite_pt
- hrtgsite_ln
- hrtgsite_pl

Coverage Names: hrtgsite_pt, hrtgsite_ln, hrtgsite_pl

Coverage Description:

A Heritage Resource is a feature, structure, building, object, site or aggregation of sites (district) that has one or more of the following: historic or natural significance, cultural, educational or artistic importance, significant architectural characteristics or an entity being managed for indefinite preservation. The coverage should represent the boundaries of a resource as close as investigations have permitted. Because most heritage resources have a subsurface component, the representation will be the professional's best estimate based on information gathered from the field. Resource locations are generally (but not always) recorded during heritage inventories and documented on state site forms. Site records are included in Cultural Resource Inventory Reports prepared by the Heritage staff for NHPA compliance for forest projects. Heritage resources depicted on the resource layer have an existing official record. Polygonal and linear resources represent the suspected boundaries/locations of the resource.

The mandatory columns are the minimum required fields for the heritage resource coverage. Forests are encouraged to include columns that are pertinent to the management of heritage resources on their unit. Recommended fields include: component type, example Historic, prehistoric, multi-component; national register status, the known national register status of the resource; forest site number, the number assigned to the resource by the forest (if different from the standard Forest Service site number) and can include trinomial; and verification, a field identifying whether the site location has been field verified. More fields may be added at the forest's discretion, but the intent is to manage heritage tabular data in the INFRA Heritage Module.

Hrtgsite_pt is a coverage that depicts heritage resources best represented as points (i.e., isolates or small monuments) that cover less than one acre of land. The one acre cut off is the

closest approximate to what is a practical estimate using a 1:24000 scale map. Note: A polygon should be used if GPS or other data collection techniques can depict the resource with greater accuracy.

Hrtgsite_ln is a coverage depicting linear sites such as trails, railroads, canals and etc. This coverage uses a route subclass, which allows for multiple sites on the same arc.

Hrtgsite_pl is a coverage that depicts heritage resources, one acre or larger, and are best represented by polygons. This coverage uses a region subclass that allows for the portrayal of overlapping polygonal sites.

References: None at this time.

Spatial Data Source: Best available source with a target scale of 1:24000 for Continental U.S., Puerto Rico, and Hawaii and 1:63360 for Alaska.

This feature will largely be derived from Forest HRM project and site atlases; though some sites may be entered directly from GPS readings taken from the field projects. The information on the atlas is copied from the site record. It is then re-plotted on USGS 7.5-minute quadrangle map. This is the base map from which GIS entry is made.

Horizontal Accuracy: Targeted to Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FDGC-STD-007.3-1998.

Projection: Forest appropriate. A complete ArcInfo projection file is required.

Datum: Forest appropriate. A complete ArcInfo projection file is required.

Units of Measure: Forest appropriate. A complete ArcInfo projection file is required.

Feature Type: Point, route, region, polygon, arc

Region Subclasses:

Name: site

Description: These features depict areas that show evidence of historic or prehistoric human activity. The Region subclass allows for the existence of multiple sites within the same area.

Route Subclass:

Name: site

Description: These features depict areas that show evidence of historic or prehistoric human activity. The Route subclass allows for the flexibility to capture segments within a linear system.

INFO Attribute Tables

hrtgsite_pt.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*HRTGSITE_PT#*	*4*	*5*	*B*	*0*		-
21	*HRTGSITE_PT-ID*	*4*	*5*	*B*	*0*		-
25	DATA_SOURCE	2	2	C	-		-
27	FS_SITE_NUM	15	15	C	-		-
42	HRTGSITE_CN	34	34	C	-	CN#	Indexed

hrtgsite_ln.aat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*FNODE#*	*4*	*5*	*B*	*0*		-
5	*FNODE#*	*4*	*5*	*B*	*0*		-
9	*LPOLY#*	*4*	*5*	*B*	*0*		-
13	*RPOLY#*	*4*	*5*	*B*	*0*		-
17	*LENGTH*	*8*	*18*	*F*	*5*		-
25	*HRTGSITE_LN#*	*4*	*5*	*B*	*0*		-
29	*HRTGSITE_LN-ID*	*4*	*5*	*B*	*0*		-
33	EXISTING	1	1	C	-		-

hrtgsite_ln.ratsite

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*SITE#*	*4*	*5*	*B*	*0*		-
5	*SITE-ID*	*4*	*5*	*B*	*0*		-
9	DATA_SOURCE	2	2	C	-		-
11	FS_SITE_NUM	15	15	C	-		-
26	HRTGSITE_CN	34	34	C	-	CN#	Indexed

hrtgsite_pl.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*HRTGSITE_PL#*	*4*	*5*	*B*	*0*		-
21	*HRTGSITE_PL-ID*	*4*	*5*	*B*	*0*		-
25	EXISTING	1	1	C	-		-

hrtgsite_pl.patsite

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*SITE#*	*4*	*5*	*B*	*0*		-
21	*SITE-ID*	*4*	*5*	*B*	*0*		-
25	DATA_SOURCE	2	2	C	-		-
27	FS_SITE_NUM	15	15	C	-		-
42	HRTGSITE_CN	34	34	C	-	CN#	Indexed

Domain for INFO tables, Heritage Resource Sites	
ITEM NAME: Description	
Valid Values	**Value Description**
HRTGSITE_CN: Control number generated in Oracle to uniquely identify each heritage site across all Forest Service units. The value is brought in from Oracle and is used as a unique identifier for each spatial feature. It is used to join each heritage site to its corresponding rows in Infra heritage user views. **(MANDATORY)**	
Example: 893757291635459	This is a unique code generated by Oracle.
FS_SITE_NUM: Unique number assigned to a site which serves as the link to the tabular data base. **(MANDATORY)**	
Example: 03080200021	This eleven digit attribute is made up of the following values from left to right: Region Number, 2 characters Forest Number, 2 characters. District Number, 2 characters. Site Number, 5 characters
DATA_SOURCE: The medium from which the data were created/acquired. **(MANDATORY)**	
01	Original CFF
02	GPS - 2-5 Meter, 3-D
03	GPS - 2-5 Meter, 2-D
04	GPS - Survey Grade and Sub-meter
05	Resurvey Plat
06	Photogrammetric Compilation
07	Digitized SES/SEQ
08	Digitized from Orthophoto Quad
09	Automated Land Project (ALP)
20	Digitized Other
21	GCDB DATA
22	Other Cadastral Information
23	Other Agency Digital
24	Other Unknown
COMPONENT_TYPE: Type of Heritage Resource site. **(recommended)**	
PRE	Prehistoric
HIS	Historic
MUL	Multicomponent
IFP	Prehistoric Isolate
IFH	Historic Isolate
NR_STATUS: Eligibility status for the National Register **(recommended)**	
Listed	Listed on the National Register of Historic Places
Eligible	Eligible for National Register Status
Not Eligible	Not eligible for National Register Status
Unevaluated	Not evaluated for National Register Status
OTHER_SITE_NUM: Number, besides the FS_SITE_NUM assigned to the site. **(optional)**	
Examples: CA-HUM-000234 48CA1253	This field can be used to track numbering systems, other than the Forest Service number (such as Smithsonian Number), that are currently being used to identify resources.
VERIFICATION: Flag denoting if site has been field verified. **(optional)**	
Y	Yes, resource has been field verified
N	No, resource location is suspect
EXISTING: Field to be used for total acre/mile summaries (will not over-count overlap in region/route). (MANDATORY in PAT of REGION coverage and in AAT of ROUTE coverage)	
Y	Yes, there is at least one site
	Blank indicates there is no site

For Heritage Resources, Infra is the national database for capturing heritage resource tabular data. This database is complete and mandatory fields (Core Data) have been identified for meeting upward reporting needs, FGDC Metadata Standards for Heritage Resources, and program needs. Consistency in the FS_SITE_NUM is extremely important for linking to the national application in the future. Future problems with external database linking will likely occur if this standard is not followed. Additional fields may be added to the GIS table if the forest/unit decides they are necessary for resource management (see recommended and optional fields above).

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Layer: Heritage Resource Surveys

The Heritage Resource Surveys layer contains the following coverages:

- Hrtgsrvy_ln
- Hrtgsrvy_pl

Coverage Names: hrtgsrvy_ln, hrtgsrvy_pl

Coverage Description:

Polygon and line coverages of heritage resource surveys. The feature depicts the documented cultural resource survey areas. It represents the areas of land receiving an archaeological survey with an accepted survey strategy. These features DO NOT represent the project boundaries, only the areas of a project that were surveyed. The survey areas depicted must have existing documentation. These features will largely be derived from Forest survey maps. The source of the survey location data on the atlas and from project work is from the Cultural Resources Inventory Reports.

Hrtgsrvy_ln is a coverage depicting linear surveys to depict the survey intensity for projects such as trails. This coverage uses a Route Subclass, which allows for multiple surveys on the same arc.

Hrtgsrvy_pl is a coverage that depicts area surveys best represented by polygons. This coverage uses a Region Subclass, which allows for overlapping surveys on the same area on the ground.

References:

None at this time.

Spatial Data Source:

Best available source with a target scale of 1:24000 for Continental U.S., Puerto Rico, and Hawaii and 1:63360 for Alaska. The information on the survey atlas is copied from the project area map within each report. It is then plotted on USGS 7.5 minute quadrangle maps. This is the base map from which GIS entry is made.

Horizontal Accuracy:

Targeted to Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FDGC-STD-007.3-1998.

Projection:

Forest appropriate. A complete ArcInfo projection file is required.

Datum:

Forest appropriate. A complete ArcInfo projection file is required.

Units of Measure:

Forest appropriate. A complete ArcInfo projection file is required.

Feature Type: route, region, polygon, arc

Region Subclasses:

Name: survey

Description: These features depict an area over which a search for evidence of archeological remains has been conducted. The Region subclass allows for the existence of multiple surveys on the same area.

Route Subclasses:

Name: survey

Description: These features depict linear surveys that show evidence of historic or prehistoric human activity. The Route subclass allows for multiple surveys on the same arc.

INFO Attribute Tables

hrtgsrvy_ln.aat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	FNODE#	4	5	B	0		-
5	FNODE#	4	5	B	0		-
9	LPOLY#	4	5	B	0		-
13	RPOLY#	4	5	B	0		-
17	LENGTH	8	18	F	5		-
25	HRTGSRVY_LN#	4	5	B	0		-
29	HRTGSRVY_LN-ID	4	5	B	0		-
33	SURVEYED	1	1	C	-		-

hrtgsrvy_ln.ratsurvey

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	SURVEY#	4	5	B	0		-
5	SURVEY-ID	4	5	B	0		-
9	DATA SOURCE	2	2	C	-		-
11	SURVEY_NUM	16	16	C	-		-
32	SURVEY_PROTOCOL	15	15	C	-		-
47	SURVEY_CN	34	34	C	-	CN#	Indexed

hrtgsrvy_pl.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	AREA	8	18	F	5		-
9	PERIMETER	8	18	F	5		-
17	HRTGSRVY_PL#	4	5	B	0		-
21	HRTGSRVY_PL-ID	4	5	B	0		-
25	SURVEYED	1	1	C	-		-

hrtgsrvy_pl.patsurvey

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	AREA	8	18	F	5		-
9	PERIMETER	8	18	F	5		-
17	SURVEY#	4	5	B	0		-
21	SURVEY-ID	4	5	B	0		-
25	DATA_SOURCE	2	2	C	-		
27	SURVEY_NUM	16	16	C	-		-
43	SURVEY_PROTOCOL	15	15	C	-		-
58	SURVEY_CN	34	34	C	-	CN#	Indexed

Domain for INFO tables, Heritage Resource Surveys	
Item name: Description	
Valid Values	**Value Description**
SURVEY_CN: Control number generated in Oracle to uniquely identify each heritage survey across all Forest Service units. The value is brought in from Oracle and is used as a unique identifier for each spatial feature. It is used to join each heritage survey to its corresponding rows in Infra heritage user views. **(MANDATORY)**	
Example: 893757291635459	This is a unique code generated by Oracle.
DATA_SOURCE: The medium from which the data were created/acquired. **(MANDATORY)**	
01	Original CFF
02	GPS - 2-5 Meter, 3-D
03	GPS - 2-5 Meter, 2-D
04	GPS - Survey Grade and Sub-meter
05	Resurvey Plat
06	Photogrammetric Compilation
07	Digitized SES/SEQ
08	Digitized from Orthophoto Quad
09	Automated Land Project (ALP)
20	Digitized Other
21	GCDB DATA
22	Other Cadastral Information
23	Other Agency Digital
24	Other Unknown
SURVEY_NUM: Unique number assigned to a survey which serves as the link to the tabular data base. **(MANDATORY)**	
Examples: R200205105100034 (with assigned District) R200205109900034 (with unassigned Dist) For consistency: recommend keeping SURVEY_NUM The same number of characters. In fact, could it be defined as 16 characters, so we could keep the usual 5 character Report number that is really used?	The survey number is a 16 digit attribute made of the following values from left to right: Report Character, "R" Four Digit Fiscal Year, 2002 Region Number, 2 characters Forest Number, 2 characters. District Number, 2 characters (use 99 if not assigned) Report Number, 5 characters
SURVEY_PROTOCOL: Type of Heritage inventory the area represents. **(MANDATORY)**	
Survey protocols are defined by the survey strategy identified in the heritage resource inventory report.	
The following are ***EXAMPLES*** of survey protocols:	
SI	Surface Intensive; 0-15m interval
ST	Surface-30; 15-30m interval
SF	Surface-50; 30-50m interval
SB	Surface Broad; 50-80m interval
SIE	Enhanced; Surface Intensive; 0-15m interval
STE	Enhanced; Surface-30; 15-30m interval
SFE	Enhanced; Surface-50; 30-50m interval
SBE	Enhanced; Surface Broad; 50-80m interval
SSS	Systematic Selective Sampling
SURVEYED: Field to be used for total acre/mile summaries (will not over-count overlap in region/route). (MANDATORY in PAT of REGION coverage and in AAT of ROUTE coverage)	
Y	Yes, there is at least one survey
	Blank indicates there is no survey

Infra and NRIS are currently working on a national database for heritage resource data. This database is under development and changes to GIS standards and tabular attributes should be expected. SURVEY_NUM is extremely important for linking to the national applications in the future. Problems with external database linking will likely occur if this standard is not followed. Protocols identified in the table above are only examples of what should be depicted in the survey GIS layer. Regions/Forests/Units should develop appropriate protocols if the protocols defined by the report are not used.

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Digital Orthophoto Quadrangle

Theme Name: DOQ

Theme Description:

A Digital Orthophoto Quadrangle (DOQ) over the Continental U.S. is a raster 1-meter ground resolution quarter-quadrangle (3.75-minutes of latitude by 3.75-minutes of longitude), or full quadrangle (7.5 minutes of latitude by 7.5 minutes of longitude), combining the image characteristics of a photograph with the geometric qualities of a map. Alaska DOQs are formatted as 7.5-minutes latitude by 7.5-minutes longitude (1/4 of a full 15-minute quadrangle area). In the native format, the DOQ is cast on the Universal Transverse Mercator Projection (UTM) and the North American Datum of 1983 (NAD83).

The DOQ is created by scanning National Aerial Photography Program (NAPP) photography, or other aerial photography acquired using NAPP-like specifications, with a precision image scanner. An aperture of approximately 25 microns is used. Using 1:40,000-scale photographs, a 25-micron scan aperture setting equates to a ground resolution of 1-meter. Using 1:80,000-scale photographs, a 25-micron scan aperture setting equates to a ground resolution of 2-meters. The scanner converts the photographic image densities to gray scale values ranging from 0-255 for black and white photographs. Color photographs may also be used as a source. For color-infrared and natural color DOQs, a digital number from 0 to 255 is assigned to each pixel in red, green and blue (RGB) bands, which are displayed simultaneously. Sources for Alaska DOQs may include 1:60,000-scale or other high altitude aerial photography. Digital Elevation Models are used to model and remove inherent geometric distortion and the photo image is reprojected orthometrically. The resulting image has the same geometric and scale characteristics as a map.

The standard distribution formats for DOQs are BIL or TIF image files.

References:

National Mapping Program Technical Instructions, Part 1 General, Part 2 Specifications; Standards for Digital Orthophotos. United States Department of the Interior, U.S. Geological Survey.

http://rmmcweb.cr.usgs.gov/public/nmpstds/doqstds.html

http://fsweb.gsc.wo.fs.fed.us/brochure/doqs.shtml

Spatial Data Source:

For the continental U.S., Hawaii, and Puerto Rico, the U.S. Geological Survey and the Forest Service Geospatial Service and Technology Center (GSTC), both produce the quarter quadrangle (3.75 minutes of longitude and latitude) from NAPP or NAPP-like photography. At GSTC, quarter-quad DOQs are mosaicked or merged to form full 7.5-minute or 15-minute (Alaska) quadrangle data files. These merged DOQs are often used to generate hardcopy film images.

Horizontal Accuracy:

Digital orthophoto quadrangles and quarter-quadrangles must meet horizontal "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998" at 1:24,000 and 1:12,000 scale.

Projection:

Digital orthophoto quarter-quadrangles and full quadrangles, in their native format, are cast on the Universal Transverse Mercator (UTM) projection.

Datum:

Digital orthophoto quarter-quadrangles, in their native format, are cast on the North American Datum of 1983. Digital orthophoto full quadrangles, in their native format, are cast on either the North American Datum of 1983 (primary) or 1927 (secondary). The four primary datum quadrangle corners are imprinted into the image as four solid white crosses, and the four secondary datum quadrangle corners as four dashed white crosses. The image file header contains the primary and secondary datum X and Y coordinates, representing the four theoretical quadrangle corners in each datum.

Units of Measure:

The horizontal ground resolution or ground sample distance (the area of the ground represented by each pixel in x and y units) of digital orthophoto quarter-quadrangles in their native format is 1 meter. The horizontal ground resolution for a full quadrangle, in its native format can be 1 or 2 meters.

Feature Type:

Pixel

Existing Vegetation

Existing Vegetation Theme contains the following layer:

- Existing Vegetation

Layer: Existing Vegetation

The Existing Vegetation layer contains the following coverages, which represent multiple levels of business functional mapping:

- ev_national
- ev_broad
- ev_mid
- ev_base

Coverage Names: ev_national, ev_broad, ev_mid, ev_base

Coverage Description:	Existing Vegetation (EV) is the plant community, or floristic composition and vegetation structure, occurring at a given location at the current time. This layer also provides for Land Use and Land Cover attributes as well, so as to allow the mapping of a continuous landscape, using Anderson 1 and 2 classification systems. This data dictionary standard provides standards for mapping existing vegetation at four hierarchical levels that support the various business functions of the agency as defined in the Existing Vegetation Classification and Mapping Technical Guide. Associated National Application: NRIS FSVeg and Terra
References:	Existing Vegetation Classification and Mapping Technical Guide Appendix 3IC – Reference Tables Web Page: http://www.fs.fed.us/emc/rig/
Spatial Data Source:	Source scale for geo-registration minimum standards are: national level– 1:1,000,000 broad level – 1:250,000 mid level – 1:100,000 base level - 1:24,000 for continental U.S., Puerto Rico, and Hawaii and 1:63,360 for Alaska
Horizontal Accuracy:	Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA
Projection:	Forest appropriate. A complete ArcInfo projection file is required.
Datum:	Forest appropriate. A complete ArcInfo projection file is required.
Units of Measure:	Forest appropriate. A complete ArcInfo projection file is required.
Feature Type:	Polygon

Existing Vegetation Levels:	**Name:** national **Description**: National is the coarsest level in the map hierarchy and is intended to store and depict data at nation wide or global extents. Map products at this level will typically have broad map classes and coarse spatial representation. Products at this level may be developed programmatically or aggregated for existing lower level products where feasible. **Name:** broad **Description:** Broad level products are intended to support state or multi-state information needs. Products at this level may be developed programmatically or aggregated for existing Mid level products where feasible. **Name:** mid **Description:** Mid level products are intended to support Regional and multi-forest information needs. Products at this level are typically developed programmatically from remotely sensed data but should integrate standard Base level maps where they exist. **Name:** base **Description:** Base level products support local Forest and District information needs and represent the highest thematic detail and spatial accuracy. Base level information is the least likely to be spatially extensive due to the cost of development; however, it offers the most flexibility for upward integration within the map hierarchy. Products at this level are typically developed from large-scale remotely sensed data and field data.

INFO Attribute Tables

ev_national.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXE
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*EV_NATIONAL#*	*4*	*5*	*B*	-		-
21	*EV_NATIONAL-ID*	*4*	*5*	*B*	-		-
25	GIS_LINK	34	34	C	-		-
60	NATIONAL_CN	34	34	C	-		Indexed

ev_broad.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*EV_BROAD#*	*4*	*5*	*B*	-		-
21	*EV_BROAD-ID*	*4*	*5*	*B*	-		-
25	GIS_LINK	34	34	C	-		-
60	BROAD_CN	34	34	C	-		Indexed

ev_mid.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*EV_MID#*	*4*	*5*	*B*	-		-
21	*EV_MID-ID*	*4*	*5*	*B*	-		-
25	GIS_LINK	34	34	C	-		-
60	MID_CN	34	34	C	-		Indexed

ev_base.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*EV_BASE#*	*4*	*5*	*B*	-		-
21	*EV_BASE-ID*	*4*	*5*	*B*	-		-
25	GIS_LINK	34	34	C	-		-
60	BASE_CN	34	34	C	-		Indexed

Domain for INFO tables, Existing Vegetation -- region subclasses	
ITEM NAME: Description	
Valid Values	**Value Description**
BASE_CN: Control Number generated by Oracle to uniquely identify a record in the database. The value can be brought from Oracle and used as a unique identifier to link spatial feature to attribute values stored in the database. This would be a guaranteed unique identifier throughout the Forest Service.	
Example: 99210277	A unique code generated by Oracle.
BROAD_CN: Control Number generated by Oracle to uniquely identify a record in the database. The value can be brought from Oracle and used as a unique identifier to link spatial feature to attribute values stored in the database. This would be a guaranteed unique identifier throughout the Forest Service.	
Example: 99210277	A unique code generated by Oracle.
GIS_LINK: Code or label generated by the user. This is a locally unique and locally defined identifier that is used to initially link the spatial coverage to a database. It can continue to be used as a local link, but it is **NOT** guaranteed unique throughout the Forest Service	
Example: Oly011171999	A locally unique and locally defined code.
MID_CN: Control Number generated by Oracle to uniquely identify a record in the database. The value can be brought from Oracle and used as a unique identifier to link spatial feature to attribute values stored in the database. This would be a guaranteed unique identifier throughout the Forest Service.	
Example: 99210277	A unique code generated by Oracle.
NATIONAL_CN: Control Number generated by Oracle to uniquely identify a record in the database. The value can be brought from Oracle and used as a unique identifier to link spatial feature to attribute values stored in the database. This would be a guaranteed unique identifier throughout the Forest Service.	
Example: 99210277	A unique code generated by Oracle.

RDBMS Attributes – Ties to individual mapping levels

existveg_national_level

Name	Null?	Type
GIS_LINK	NOT NULL	VARCHAR2(34)
NATIONAL_CN		VARCHAR2(34)
ECOREGION_DOMAIN	NOT NULL	VARCHAR2(4)
ECOREGION_DIVISION	NOT NULL	VARCHAR2(3)
ECOREGION_PROVINCE		VARCHAR2(4)
USGS_ANDERSON_1		VARCHAR2(1)
USGS_ANDERSON_2		VARCHAR2(2)
PHYSIOGNOMIC_DIVISION	NOT NULL	VARCHAR2(1)
PHYSIOGNOMIC_ORDER	NOT NULL	VARCHAR2(1)
PHYSIOGNOMIC_CLASS	NOT NULL	VARCHAR2(2)
PHYSIOGNOMIC_SUBCLASS		VARCHAR2(2)
TOTAL_VEGETATIVE_COVER	NOT NULL	VARCHAR2(2)
SAF_COVER_TYPE		VARCHAR2(3)
SRM_COVER_TYPE		VARCHAR2(3)
TREE_CANOPY_CLOSURE_CLASS_1		VARCHAR2(2)
DATA_SOURCE	NOT NULL	VARCHAR2(5)
SOURCE_DATE	NOT NULL	DATE
MAP_UPDATE_CAUSE		VARCHAR2(2)

existveg_broad_level

Name	Null?	Type
GIS_LINK	NOT NULL	VARCHAR2(34)
BROAD_CN		VARCHAR2(34)
ECOREGION_DOMAIN	NOT NULL	VARCHAR2(4)
ECOREGION_DIVISION	NOT NULL	VARCHAR2(3)
ECOREGION_PROVINCE	NOT NULL	VARCHAR2(4)
ECOREGION_SECTION		VARCHAR2(5)
USGS_ANDERSON_1	NOT NULL	VARCHAR2(1)
USGS_ANDERSON_2		VARCHAR2(2)
PHYSIOGNOMIC_DIVISION	NOT NULL	VARCHAR2(1)
PHYSIOGNOMIC_ORDER	NOT NULL	VARCHAR2(1)
PHYSIOGNOMIC_CLASS	NOT NULL	VARCHAR2(2)
PHYSIOGNOMIC_SUBCLASS		VARCHAR2(2)
TOTAL_VEGETATIVE_COVER	NOT NULL	VARCHAR2(2)

SAF_COVER_TYPE -- 2/		VARCHAR2(3)
SRM_COVER_TYPE -- 3/		VARCHAR2(3)
REGIONAL_DOMINANCE_TYPE_1		VARCHAR2(3)
DOMINANCE_TYPE_REFERENCE_1		VARCHAR2(5)
TREE_CANOPY_CLOSURE_CLASS_1		VARCHAR2(2)
TREE_DIAMETER_CLASS_1		VARCHAR2(2)
SHRUB_COVER_CLASS		VARCHAR2(2)
DATA_SOURCE	NOT NULL	VARCHAR2(5)
SOURCE_DATE	NOT NULL	DATE
MAP_UPDATE_CAUSE		VARCHAR2(2)

2/ -- If NVCS is Tree Dominated
3/ -- If NVCS is Shrub or Herbaceous Dominated

existveg_mid_level

Name	Null?	Type
GIS_LINK	NOT NULL	VARCHAR2(34)
MID_CN		VARCHAR2(34)
ECOREGION_DOMAIN	NOT NULL	VARCHAR2(4)
ECOREGION_DIVISION	NOT NULL	VARCHAR2(3)
ECOREGION_PROVINCE	NOT NULL	VARCHAR2(4)
ECOREGION_SECTION	NOT NULL	VARCHAR2(5)
ECOREGION_SUBSECTION		VARCHAR2(5)
USGS_ANDERSON_1	NOT NULL	VARCHAR2(1)
USGS_ANDERSON_2		VARCHAR2(2)
PHYSIOGNOMIC_DIVISION	NOT NULL	VARCHAR2(1)
PHYSIOGNOMIC_ORDER	NOT NULL	VARCHAR2(1)
PHYSIOGNOMIC_CLASS	NOT NULL	VARCHAR2(2)
PHYSIOGNOMIC_SUBCLASS – 1/		VARCHAR2(2)
TOTAL_VEGETATIVE_COVER	NOT NULL	VARCHAR2(2)
SAF_COVER_TYPE – 2/		VARCHAR2(3)
SRM_COVER_TYPE – 3/		VARCHAR2(3)
AGGREGATION_TYPE	NOT NULL	VARCHAR2(1)
REGIONAL_DOMINANCE_TYPE_1 – 4/	NOT NULL	VARCHAR2(3)
DOMINANCE_TYPE_REFERENCE_1 – 4/	NOT NULL	VARCHAR2(5)
NVCS_ALLIANCE_1		VARCHAR2(26)
TREE_CANOPY_CLOSURE_CLASS_1 – 2/		VARCHAR2(2)
TREE_DIAMETER_CLASS_1 -- 2/		VARCHAR2(2)
SHRUB_COVER_CLASS_1 – 5/		VARCHAR2(2)
REGIONAL_DOMINANCE_TYPE_2 – 6/		VARCHAR2(3)

DOMINANCE_TYPE_REFERENCE_2 – 6/		VARCHAR2(5)
NVCS_ALLIANCE_2		VARCHAR2(26)
TREE_CANOPY_CLOSURE_CLASS_2		VARCHAR2(2)
TREE_DIAMETER_CLASS_2		VARCHAR2(2)
SHRUB_COVER_CLASS_2		VARCHAR2(2)
REGIONAL_DOMINANCE_TYPE_3 – 7/		VARCHAR2(3)
DOMINANCE_TYPE_REFERENCE_3 – 7/		VARCHAR2(5)
NVCS_ALLIANCE_3 – 7/		VARCHAR2(26)
TREE_CANOPY_CLOSURE_CLASS_3 – 7/		VARCHAR2(2)
TREE_DIAMETER_CLASS_3 – 7/		VARCHAR2(2)
SHRUB_COVER_CLASS_3 – 7/		VARCHAR2(2)
DATA_SOURCE	NOT NULL	VARCHAR2(5)
SOURCE_DATE	NOT NULL	DATE
MAP_UPDATE_CAUSE	NOT NULL	VARCHAR2(2)

1/ -- Required if NVCS Order is Tree or Shrub Dominated, optional for other Vegetated Orders
2/ -- If NVCS is Tree Dominated
3/ -- If NVCS is shrub or Herbaceous Dominated
4/ -- Required, regardless of aggregation type, used to assign all upper levels of NVCS Physiognomic and National Cover Types
5/ -- If NVCS order is Shrub Dominated
6/ -- Required only if the Aggregation Type is a group or complex
7/ -- Optional, use if the Aggregation Type is a group or complex, and is needed to describe vegetation within any particular map unit

existveg_base_level

Name	Null?	Type
GIS_LINK	NOT NULL	VARCHAR2(34)
BASE_CN		VARCHAR2(34)
ECOREGION_DOMAIN	NOT NULL	VARCHAR2(4)
ECOREGION_DIVISION	NOT NULL	VARCHAR2(3)
ECOREGION_PROVINCE	NOT NULL	VARCHAR2(4)
ECOREGION_SECTION	NOT NULL	VARCHAR2(5)
ECOREGION_SUBSECTION	NOT NULL	VARCHAR2(5)
USGS_ANDERSON_1	NOT NULL	VARCHAR2(1)
USGS_ANDERSON_2		VARCHAR2(2)
PHYSIOGNOMIC_DIVISION	NOT NULL	VARCHAR2(1)
PHYSIOGNOMIC_ORDER	NOT NULL	VARCHAR2(1)
PHYSIOGNOMIC_CLASS	NOT NULL	VARCHAR2(2)
PHYSIOGNOMIC_SUBCLASS - 1/	NOT NULL	VARCHAR2(2)
TOTAL_VEGETATIVE_COVER	NOT NULL	VARCHAR2(2)

SAF_COVER_TYPE – 2/		VARCHAR2(3)
SRM_COVER_TYPE – 3/		VARCHAR2(3)
AGGREGATION_TYPE	NOT NULL	VARCHAR2(1)
REGIONAL_DOMINANCE_TYPE_1	NOT NULL	VARCHAR2(3)
DOMINANCE_TYPE_REFERENCE_1	NOT NULL	VARCHAR2(5)
NVCS_ALLIANCE_1	NOT NULL	VARCHAR2(26)
NVCS_ASSOCIATION_1		VARCHAR2(47)
TREE_DIAMETER_CLASS_1 – 2/		VARCHAR2(2)
SHRUB_COVER_CLASS_1 – 5/		VARCHAR2(2)
REGIONAL_DOMINANCE_TYPE_2 – 6/		VARCHAR2(3)
DOMINANCE_TYPE_REFERENCE_2 – 6/		VARCHAR2(5)
NVCS_ALLIANCE_2		VARCHAR2(26)
NVCS_ASSOCIATION_2		VARCHAR2(47)
TREE_CANOPY_CLOSURE_CLASS_2		VARCHAR2(2)
TREE_DIAMETER_CLASS_2		VARCHAR2(2)
SHRUB_COVER_CLASS_2		VARCHAR2(2)
REGIONAL_DOMINANCE_TYPE_3 – 7/		VARCHAR2(3)
DOMINANCE_TYPE_REFERENCE_3 – 7/		VARCHAR2(5)
NVCS_ALLIANCE_3 – 7/		VARCHAR2(26)
NVCS_ASSOCIATION_3 – 7/		VARCHAR2(47)
TREE_CANOPY_CLOSURE_CLASS_3 – 7/		VARCHAR2(2)
TREE_DIAMETER_CLASS_3 – 7/		VARCHAR2(2)
SHRUB_COVER_CLASS_3 – 7/		VARCHAR2(2)
DATA_SOURCE		VARCHAR2(5)
SOURCE_DATE		DATE
MAP_UPDATE_CAUSE		VARCHAR2(2)

2/ -- If NVCS is Tree Dominated
3/ -- If NVCS is shrub or Herbaceous Dominated
4/ -- Required, regardless of aggregation type, used to assign all upper levels of NVCS Physiognomic and National Cover Types
5/ -- If NVCS order is Shrub Dominated
6/ -- Required only if the Aggregation Type is a group or complex
7/ -- Optional, use if the Aggregation Type is a group or complex, and is needed to describe vegetation within any particular map unit

Domain for Oracle Tables, Existing Vegetation		
ITEM NAME: Description		
Valid Values		**Value Description**
AGGREGATION_TYPE: A map unit attribute to describe the arrangement of vegetation condition found within a map feature or polygon. An aggregation type consists of a homogenous dominance type or plant association, or compositional group, or vegetation complex arrangements of dominance types or plant associations.		
code	*name*	*definition*
H	Homogenous type	Homogenous Type - a map unit composed of a homogenous condition of vegetation or uniform type, a map unit composed of a single alliance or dominance type, at least 85% of the area within polygon. (NFS, Vegetation Classification and Mapping Team)
	Compositional group type	Compositional Group – a map unit composed of a grouping of alliances or dominance types with similar taxonomic composition and physiognomy. (GAP, Bulletin 7)
C	Vegetation complex type	Vegetation Complex – a map unit composed of a grouping of dissimilar alliances that are spatially and ecologically related on the landscape. (Called Ecological Complex in GAP, Bulletin 7)
BASE_CN: Control Number generated by Oracle to uniquely identify a record in the database. The value can be brought from Oracle and used as a unique identifier to link spatial feature to attribute values stored in the database. This would be a guaranteed unique identifier throughout the Forest Service.		
Example: 99210277		A unique code generated by Oracle.
BROAD_CN: Control Number generated by Oracle to uniquely identify a record in the database. The value can be brought from Oracle and used as a unique identifier to link spatial feature to attribute values stored in the database. This would be a guaranteed unique identifier throughout the Forest Service.		
Example: 99210277		A unique code generated by Oracle.
DATA_SOURCE: This is feature metadata primarily for documenting the source of the remote sensing imagery used when establishing or updating an existing vegetation map. Remote Sensing is the gathering of data regarding an object or phenomenon by a recording device (sensor) that is not in physical contact with the object or phenomenon under observation. When multiple sources are used, record the imagery or photograph that was the primary source for classification and or interpretation. This will usually be the source of the smallest pixel size or largest scale. Field sample data can also be the source for mapping.		
AVHRR		AVHRR Imagery, 1 kilometer
MODIS		MODIS Imagery, 250 meters
MSS		Multi Spectral Scanner Imagery, 60 meters
TM		Thematic Mapper Imagery, 30 meter
SPOT		Spot Imagery, 10 meter
IRS		IRS imagery, 5 meter
IKONO		IKONOS Imagery, 1 meter
ANC06		Aerial photos - natural color 1:6,000 scale
ANC12		Aerial photos - natural color 1:12,000 scale
ANC16		Aerial photos - natural color 1:15,840 scale
ANC24		Aerial photos - natural color 1:24,000 scale

Domain for Oracle Tables, Existing Vegetation	
ITEM NAME: Description	
Valid Values	**Value Description**
DATA_SOURCE (continued)	
ANC40	Aerial photos - natural color 1:40,000 scale
ANC60	Aerial photos - natural color 1:60,000 scale
AIR06	Aerial photos - infrared 1:6,000 scale
AIR12	Aerial photos - infrared 1:12,000 scale
AIR16	Aerial photos - infrared 1:15,840 scale
AIR24	Aerial photos - infrared 1:24,000 scale
AIR40	Aerial photos - infrared 1:40,000 scale
AIR60	Aerial photos - infrared1:60,000 scale
ABW06	Aerial photos - black and white panchromatic, 1:6,000 scale
ABW12	Aerial photos - black and white panchromatic, 1:12,000 scale
ABW16	Aerial photos - black and white panchromatic, 1:16,000 scale
ABW24	Aerial photos - black and white panchromatic, 1:24,000 scale
ABW40	Aerial photos - black and white panchromatic, 1: 40,000 scale
ABW60	Aerial photos - black and white panchromatic, 1: 60,000 scale
DNC	Digital photos - scanned natural color
DIR	Digital photos - scanned color infrared
DBW	Digital photos - scanned black and white panchromatic
DOQBW	Digital Ortho Quads - panchromatic
DOQIR	Digital Ortho Quads - color infrared
FSD	Field sample data such as walk through or formal vegetation sample
DOMINANCE_TYPE_REFERENCE_1,2, or 3: Reference Source for Regional Dominance Type Classifications. (In the future, individual reference tables by Region are anticipated, and to be locally maintained by each Region, but shared nationally as part of the corporate data structure. Their reference information will be listed here, with the tables listed under REGIONAL DOMINANCE TYPE 1,2, or 3.)	
CAL	Region 5 CALVEG Classification System
FSHR9	Region 9 Classification System
ECOREGION DIVISION: Divisions of the United States	
120	Tundra Division
130	Subarctic Division
210	Warm Continental Division
220	Hot Continental Division
230	Subtropical Division
240	Marine Division
250	Prairie Division
260	Mediterranean Division
310	Tropical/Subtropical Steppe Division
320	Tropical/Subtropical Desert Division
330	Temperate Steppe Division
340	Temperate Desert Division
410	Savanna Division
420	Rainforest Division

Domain for Oracle Tables, Existing Vegetation	
ITEM NAME: Description	
Valid Values	**Value Description**
ECOREGION DOMAIN: Domains of the United States	
100	POLAR DOMAIN
200	HUMID TEMPERATE DOMAIN
300	DRY DOMAIN
400	HUMID TROPICAL DOMAIN
ECOREGION PROVINCE: Provinces of the United States	
124	Arctic Tundra
125	Bering Tundra (Northern)
126	Bering Tundra (Southern)
131	Yukon Intermontane Plateaus Tayga
135	Central Trough Humid Tayga
139	Upper Yukon Tayga
212	Laurentian Mixed Forest
231	Southeastern Mixed Forest
232	Outer Coastal Plain Mixed Forest
234	Lower Mississippi Riverine Forest
242	Pacific Lowland Mixed Forest
251	Prairie Parkland (Temperate)
255	Prairie Parkland (Subtropical)
261	California Coastal Chaparral Forest and Shrub
262	California Dry Steppe
263	California Coastal Steppe - Mixed Forest - Redwood
311	Great Plains Steppe and Shrub
313	Colorado Plateau Semi-Desert
315	Southwest Plateau and Plains Dry Steppe and Shrub
321	Chihuahuan Semi-Desert
322	American Semi-Desert and Desert
331	Great Plains - Palouse Dry Steppe
332	Great Plains Steppe
341	Intermountain Semi-Desert and Desert
342	Intermountain Semi Desert
342A	Bighorn Basin
342B	Northwestern Basin and Range
342D	Snake River Basalts
342E	Bear Lake
342F	Central Basin and Hills
411	Everglades
M121	Brooks Range Tundra - Polar Desert
M125	Seward Peninsula Tundra - Meadow
M126	Ahklun Mountains Tundra - Meadow
M127	Aleutian Ocianic Meadow - Heath

Domain for Oracle Tables, Existing Vegetation	
ITEM NAME: Description	
Valid Values	**Value Description**
ECOREGION_PROVINCE (continued)	
M131	Yukon Intermontane Plateaus Taiga - Meadow
M135	Alaska Range Humid Taiga - Tundra - Meadow
M139	Upper Yukon Taiga - Meadow
M212	Adirondack-New England - Mixed Forest - Coniferous Forest - Alpine Meadows
M231	Ouachita Mixed Forest - Meadow
M242	Cascade Mixed Forest - Coniferous Forest - Alpine Meadow
M244	Pacific Coastal Mountains Forest - Meadow
M245	Pacific Gulf Coastal Mountains Forest - Meadow
M261	Sierran Steppe - Mixed Forest - Coniferous Forest - Alpine Meadow
M262	California Coastal Range Open Woodland - Shrub - Coniferous Forest - Meadow
M313	AZ-NM Mountains Semi-Desert - Open Woodland - Coniferous Forest - Alpine Meadow
M331	Southern Rocky Mountain Steppe - Open Woodland - Coniferous Forest - Alpine Meadow
M332	Middle Rocky Mountain Steppe - Open Woodland - Coniferous Forest - Alpine Meadow
M333	Northern Rocky Mountain Steppe - Open Woodland - Coniferous Forest - Alpine Meadow
M334	Black Hills Coniferous Forest
M341	NV-UT Mountains Semi-Desert - Coniferous Forest - Alpine Meadow
M411	Puerto Rico
M423	Hawaiian Islands
ECOREGION_SECTION: Sections of the United States	
212A	Aroostook Hills and Lowlands
212B	Maine-New Brunswick Foothills and Lowlands
212C	Fundy Coastal and Interior
212D	Central Maine Coastal and Embayment
212E	St. Lawrence and Champlain Valley
212F	Northern Glaciated Allegheny Plateau
212G	Northern Unglaciated Allegheny Plateau
212H	Northern Great Lakes
For a complete list of valid ECOREGION SECTION codes, go to http://www.fs.fed.us/emc/rig/	
ECOREGION_SUBSECTION - Subsections of the United States	
212Aa	Aroostook Hills and Lowlands
212Ab	Aroostook Lowlands
212Ba	Central Maine Foothills
212Bb	Maine-New Brunswick Lowlands
212Ca	Maine Eastern Interior
212Cb	Maine Eastern Coastal
212Da	Central Maine Embayment
212Db	Penobscott Bay Coast
212Dc	Casco Bay Coast
For a complete list of valid ECOREGION SUBSECTION codes, go to http://www.fs.fed.us/emc/rig/	

Domain for Oracle Tables, Existing Vegetation	
ITEM NAME: Description	
Valid Values	**Value Description**
GIS_LINK: Code or label generated by the user. This is a locally unique and locally defined identifier that is used to initially link the spatial coverage to a database. It can continue to be used as a local link, but it is **NOT** guaranteed unique throughout the Forest Service	
Example: Oly011171999	A locally unique and locally defined code.
MAP_UPDATE_CAUSE: Existing vegetation changes over time, due to natural events and man's activity on the land. This is feature metadata for documenting the cause of change to existing vegetation between the time of initial map establishment, and consequential updates for change.	
AC	Accuracy assessment related update for map improvement
AG	Land conversion to agriculture crops or orchards
BD	Downed forests due to high winds, blow down
CU	Update change where cause is unknown
DE	Defoliation related update from insects or pathogens
FI	Fire related update
GL	Receding or advancing glaciers
IN	Change in vegetation type due to invasive species
IV	Increasing vegetation cover due to re-growth
LS	Changes in vegetation cover due to landslides
MO	Mortality from insect or pathogens related update
PL	Plantation related update, reforestation activity
RC	Rangeland conversion
SO	Source original for baseline map, not an update
TH	Tree harvest related update
UB	Land conversion to urban, built-up or development
MID_CN: Control Number generated by Oracle to uniquely identify a record in the database. The value can be brought from Oracle and used as a unique identifier to link spatial feature to attribute values stored in the database. This would be a guaranteed unique identifier throughout the Forest Service.	
Example: 99210277	A unique code generated by Oracle.
NATIONAL_CN: Control Number generated by Oracle to uniquely identify a record in the database. The value can be brought from Oracle and used as a unique identifier to link spatial feature to attribute values stored in the database. This would be a guaranteed unique identifier throughout the Forest Service.	
Example: 99210277	A unique code generated by Oracle.
NVCS_ALLIANCE_1,2 or 3: An alliance is a grouping of associations with a characteristic physiognomy, and sharing one or more diagnostic species, which, as a rule, are found in the uppermost or dominant stratum of the vegetation. For coding conventions using NRCS plants master codes and fixed format columns see write up below	
NVCS_ASSOCIATION_1,2 or 3: An association is a recurring plant community with a characteristic range in species composition, specific diagnostic species, and a defined range in habitat conditions and physiognomy or structure. For coding conventions using NRCS plants master codes and fixed format columns see write up below	

How to assign a unique database code for NVCS plant alliances and associations:
A standardized approach has been adopted for coding plant alliances and associations for storing as valid values in a reference table. This is needed for the development of a Forest Service standard geospatial database for existing vegetation, and for documenting the results of any formal vegetation classification work. The following approach is to use a fixed format with standard sub-items, and column referencing. It is likely that a unique table structure will be necessary to develop the standard alliance and association codes, allowing other constraint tables for ecological sections and NRCS Plants Master table constraints, as well as including other useful information as common names and descriptions. Once the codes are developed, then they are to be used as valid values for existing vegetation map attributing.

The first sub-item (5 characters) is the **ecological zone** where the alliance or association is found. This reference area should correspond to where the plot data was gathered for classifying the vegetation type. The intent is to document what section the existing vegetation type exists. As classification work progresses, users can reference classifications found with ecological zones, and if the same vegetation type is found in more than one section, then the type can be assigned a higher level province. For widely distributed plant alliances, ecological divisions may be found useful as the reference area; however, it is unlikely for plant associations.

The second, third and fourth sub-items (each 7 characters in size) are used for coding the dominant and or diagnostic species found in the uppermost stratum of a **plant alliance**. Three sub-items are provided for mixed types, to allow for naming of more than one plant species in the coding convention. Each sub-item has a leading number (1, 2, or 3) followed by 6-digit code where the NRCS Plants Master table codes are to be used as valid values. The resulting code for a plant alliance is 26 characters in size.

The fourth, fifth and sixth sub-items (each 7 characters in size) are used for coding the common species composition and or diagnostic species found in the understory. Three sub-items are provided for mixed types, to allow for naming of more than one plant species in the coding convention. Each sub-item has a leading number (4, 5, or 6) followed by 6-digit code where the NRCS Plants Master table codes are to be used as valid values. This allow for up to six species in naming **plant associations**. The resulting code for a plant association is 47 characters in size.

All plant associations belonging to the same plant alliance must share the same coding of species in the second, third and fourth sub-items. Using this database protocol, will allow for the selection of all related plant associations, through the selection of the plant alliance within an ecological zone.

An example of the coding convention and fixed format columns is shown below with an example of a plant association found in the Sierra Nevada's of California.

Province or Section	**Plant Alliance**						**Plant Association**					
code	*1*	*species code*	*2*	*species code*	*3*	*species code*	*4*	*species code*	*5*	*species code*	*6*	*species code*
xxxxx	*1*	xxxxxx	*2*	xxxxxx	*3*	xxxxxx	*4*	xxxxxx	*5*	xxxxxx	*6*	xxxxxx
5	1	6	1	6	1	6	1	6	1	6	1	6
26												
47												
M261E	*1*	PIPO	*2*	_____	*3*	_____	*4*	ARVI4	*5*	_____	*6*	_____
Sierra Nevada Section		Ponderosa Pine						whiteleaf manzanita				

Domain for Oracle Tables, Existing Vegetation	
ITEM NAME: Description	
Valid Values	**Value Description**
PHYSIOGNOMIC_CLASS: NVCS Class	
TC	Closed tree canopy
TO	Open tree canopy
TS	Sparse tree canopy
ST	Shrubland class
SD	Dwarf shrubland class
HS	Herbaceous - shrub steppe class
HE	Herbaceous - grassland class
NV	non-vascular class
SV	Sparsely vegetated class
XX	Non-Vegetated
PHYSIOGNOMIC_DIVISION: NVCS Division	
N	Non-vegetative division
V	Vegetative division
PHYSIOGNOMIC_ORDER: NVCS Order	
T	Tree dominated order
S	Shrub dominated order
H	Herbaceous/non-vascular dominated order
N	No dominate life form order
X	Non-vegetated order
PHYSIOGNOMIC_SUBCLASS: NVCS Subclass	
EV	Evergreen vegetation subclass
DE	Deciduous vegetation subclass
MX	Mixed evergreen-deciduous vegetation subclass
PG	Perennial graminoud subclass
PF	Perennial forb subclass
AN	Annual graminoid and or forb subclass
HV	Hydromorphic rooted vegetation subclass
BR	Bryophyte subclass
LI	Lichen subclass
AL	Alga subclass
RC	Consolidate rock subclass
BG	Boulder, gravel, cobble or talus subclass
UM	Unconsolidated material subclass
UB	Urban or build-up subclass
XX	Non-Vegetated
NN	Subclass not Determined

Domain for Oracle Tables, Existing Vegetation	
ITEM NAME: Description	
Valid Values	**Value Description**
XX_Regional_Dominance_Type: A dominance type is a recurring plant community defined by the dominance of one or more species, which are usually the most important ones in the [uppermost] layer of the community, but sometimes of a lower layer of higher coverage. Regional refers to Forest Service administrative Regions, where local dominance typing has been completed. Individual reference tables by Region are anticipated, and to be locally maintained by each Region but shared nationally as part of the corporate data structure.	
Region 5 - Dominance Types (CALVEG classification system)	
AB	Santa Lucia Fir
AC	Cushion Plant
AD	White Bursage
AG	Agricultural
AN	Mendocino Manzanita
DP	Douglas-Fir - Pine
QX	Black Cottonwood
QY	Willow - Alder
QZ	Eucalyptus
RD	Redwood - Douglas-Fir
For a complete list of DOMINANCE TYPES, go to http://www.fs.fed.us/emc/rig/	
Region 9 - Dominance Types (forest only)	
1	Jack pine
2	Red pine
3	Eastern red pine
4	Eastern white pine – hemlock
5	Hemlock
6	Scotch pine
7	Norway spruce
8	White spruce
9	Conifers (Allegheny)
10	Spruce
For a complete list of DOMINANCE TYPES, go to http://www.fs.fed.us/emc/rig/.	
SAF_COVER_TYPE: Forest Cover Types of the United States and Canada, F.H. Eyre, Editor, Society of American Foresters, Washington, D.C., 1980. The classification of Forest Cover Types based on existing tree cover, includes a description classification of forestland based on present occupancy of an areas by tree species.	
1	Jack pine
5	Balsam fir
12	Black spruce
13	Black spruce – tamarack
14	Northern pin oak
15	Red pine
16	Aspen
For a complete list of SAF COVER TYPE, go to http://www.fs.fed.us/emc/rig/	

Domain for Oracle Tables, Existing Vegetation	
ITEM NAME: Description	
Valid Values	**Value Description**
SHRUB_COVER_CLASS_1,2,3: Shrub canopy cover is the percentage of ground covered by a vertical projection of t outermost perimeter of the natural spread of foliage of shrubs. Small openings within the canopy are included	
Base Level	
00	less than 1 percent
05	1 - 9.9 percent
15	10 -19.9 percent
25	20 -29.9 percent
35	30 -39.9 percent
45	40 - 49.9 percent
55	50 - 59.9 percent
65	60 - 69.9 percent
75	70 -79.9 percent
85	80 - 89.9 percent
95	90 - 100 percent
Mid Level	
01	less than 10 percent
20	10 - 29.9 percent
40	30 - 59.9 percent
70	60 - 79.9 percent
90	80 - 100 percent
Broad Level	
LO	Low less than 30 percent
ME	Medium 30 - 59.9 percent
HI	High 60 - 100 percent
SOURCE_DATE: Remote Sensing source date is the month, day and year when the imagery was captured.	
MM, DD, YYYY	This is feature-level metadata for documenting the date for t source of the remote sensing imagery used when establishing updating an existing vegetation map. When field sample data is t source, record the date of sample.
SRM_COVER_TYPE: Rangeland Cover Types of the United States, Thomas N. Shiflet, Editor, Society for Ran Management, Denver, Colorado, 1994. The classification of rangeland cover types based on existing vegetation includ descriptions of what one finds on the ground and ecological influences that contribute to their present structure.	
101	Bluebunch wheatgrass
102	Idaho fescue
103	Green fescue
104	Antelope bitterbrush - bluebunch wheatgrass
105	Antelope bitterbrush - Idaho fescue
106	Bluegrass scabland
107	Western juniper - big sagebrush - bluebunch wheatgrass
For a complete list of SRM COVER TYPE, go to http://www.fs.fed.us/emc/rig/	

Domain for Oracle Tables, Existing Vegetation	
ITEM NAME: Description	
Valid Values	**Value Description**
TOTAL_VEGETATIVE_COVER: Vegetation canopy cover is the percentage of ground covered by a vertical projection o the outermost perimeter of the natural spread of foliage of plants. Small openings within the canopy are included	
Broad Level	
LO	Low less than 30 percent
ME	Medium 30 - 59.9 percent
HI	High 60 - 100 percent
Mid Level	
01	Less than 10 percent
20	10 - 29.9 percent
40	30 - 59.9 percent
70	60 - 79.9 percent
90	80 - 100 percent
Base Level	
00	Less than 1 percent
05	1 - 9.9 percent
15	10 -19.9 percent
25	20 -29.9 percent
35	30 -39.9 percent
45	40 - 49.9 percent
55	50 - 59.9 percent
65	60 - 69.9 percent
75	70 -79.9 percent
85	80 - 89.9 percent
95	90 - 100 percent
TREE_CANOPY_CLOSURE_CLASS_1,2,3: The proportion of ground, usually expressed as a percentage that is occupied by the perpendicular projection downward of the aerial parts of the vegetation of one or more tree species. It usually refers to the tree life form of the uppermost canopy, as seen from above, and cannot exceed 100 percent. It is similar in concept to absolute canopy cover. Tree canopy closure is broken down into 10 percent categories, or groups o 10 percent categories for mapping at different levels.	
Base Level	
00	less than 1 percent
05	1 - 9.9 percent
15	10 -19.9 percent
25	20 -29.9 percent
35	30 -39.9 percent
45	40 - 49.9 percent
55	50 - 59.9 percent
65	60 - 69.9 percent
75	70 -79.9 percent
85	80 - 89.9 percent
95	90 - 100 percent

Domain for Oracle Tables, Existing Vegetation	
ITEM NAME: Description	
Valid Values	**Value Description**
TREE_CANOPY_CLOSURE_CLASS_1,2,3 (continued)	
Mid Level	
01	less than 10 percent
20	10 - 29.9 percent
40	30 - 59.9 percent
70	60 - 79.9 percent
90	80 - 100 percent
Broad Level	
LO	Low less than 30 percent
ME	Medium 30 - 59.9 percent
HI	High 60 - 100 percent

TREE_DIAMETER_CLASS_1,2, or 3: Tree size class is determined by calculating the diameter (usually at breast heigh of the tree of average basal area (Quadratic Mean Diameter or QMD) of the top story trees that contribute to cano closure, tree cover as seen from a birds eye view from above. Top story trees are those trees receiving light from abo and at least one side; these are the open grown, dominant, and codominant trees.

Base Level	
00	Seedlings - 0 to .9 inches QMD
02	Saplings - 1 to 4.9 inches QMD
07	Poles - 5 to 9.9 inches QMD
15	Small - 10 to 19.9 inches QMD
25	Medium - 20 to 29.9 inches QMD
35	Large - 30 to 39.9 inches QMD
45	Very large - 40 to 49.9 inches QMD
55	Giant - 50+ inches QMD
40	Large to giant - For **Mid Level** mapping, use code for 30 inches and greater size.

USGS_ANDERSON_1: USGS Land Use Land Cover

1	Urban or build-up land	Urban or Built-up land is comprised of areas of intensive use with much of the land covered by structures. Included in this category are cities, towns, villages, strip developments along highways, transportation, power, and communication complexes, and institutions that may, i some instances, be isolated from urban areas.
2	Agricultural land	Agricultural land is comprised of areas used primarily for production of food and fiber. Included in this category are cropland and pastures, orchards, groves vineyards, nurseries, and ornamental horticultural areas, confined feeding operations and other agriculture land. When the production of agricultural crops is not hindered by wetland conditions, such cropland should be included in the agricultural category.
3	Rangeland	Rangeland is comprised of areas where the potential natural vegetation is predominantly grasses, grass like plants, forbs, or shrubs and where natural herbivory was an important influence in its precivilization state. Some rangelands may have been or may be seeded in introduced or domesticated plant species. Categories include herbaceous range, shrub and brush rangeland and mixed rangeland.

Domain for Oracle Tables, Existing Vegetation		
ITEM NAME: Description		
Valid Values		**Value Description**
USGS_ANDERSON_1 (continued)		
4	Forest land	Forest lands have a tree-crown areal density (crown closure percentage) of 10 percent or more, are stocked with trees capable of producing timber or other wood products, and exert an influence on the climate or water regime. Lands from which trees have been removed to less than 10 percent crown closure but which have not been developed for other uses also are included. Categories include deciduous, evergreen, and mixed.
5	Water	Water as includes all areas within the landmass of the United States that persistently are water covered. The delineation of water areas depends on the scale of the presentation and resolution of the remote sensor data used, (refer to minimum map unit criteria for each map level). Categories include streams and canals, lakes, reservoirs, bays and estuaries.
6	Wetland	Wetlands are those areas where the water table is at, near, or above the land surface for a significant part of most years. The hydrologic regime is such that aquatic or hydrophytic vegetation usually is established, although alluvial and tidal flats may be non-vegetated. Wetlands frequently are associated with topographic lows, even in mountainous regions. Examples of wetlands include marshes, mudflats, and swamps situated on the shallow margins of bays, lakes, ponds, streams, and manmade impoundments such as reservoirs. They include wet meadows or perched bogs in high mountain valleys and seasonally wet or flooded basins, playas, or potholes with no surface-water outflow. Shallow water areas when aquatic vegetation is submerged are classed as open water and are not included in the Wetland category. Categories include forested and non-forested wetlands.
7	Barren land	Barren Land is land of limited ability to support life and in which less than one-third of the area has vegetation or other cover. In general, it is an area of thin soil, sand, or rocks. Vegetation if present, is more widely spaced and scrubby than that in the Shrub and Brush category of Rangeland. Unusual conditions, such as a heavy rainfall, occasionally result in growth of a short lived, more luxuriant plant cover. Categories of Barren Land are: Dry Salt Flats, Beaches, Sandy Areas other than Beaches; Bare Exposed Rock; Strip Mines, Quarries, and Gravel Pits; Transitional Areas; and Mixed Barren Land.
USGS_ANDERSON_2: USGS Land Use Land Cover		
Urban or build-up land		
11	Residential	
12	Commercial and services	
13	Industrial	
14	Transportation, communications, and utilities	
15	Industrial and commercial complexes	
16	Mixed urban or built-up land	
17	Other urban or built-up land	
Agricultural land		
21	Cropland and pasture	
22	Orchards, groves, vineyards, nurseries, and ornament horticultural areas	
23	Confined feeding operations	
24	Other agriculture land	
Rangeland		
31	Herbaceous rangeland	
32	Shrub and brush rangeland	
33	Mixed rangeland	

Domain for Oracle Tables, Existing Vegetation	
ITEM NAME: Description	
Valid Values	**Value Description**
USGS_ANDERSON_2: USGS Land Use Land Cover	
Forest land	
41	Deciduous forest land, same as NVC Subclass - deciduous vegetation
42	Evergreen forest land, same as NVC Subclass - evergreen vegetation
43	Mixed forest land, same as NVC Subclass - mixed evergreen-deciduous vegetation
Water	
51	Streams and canals
52	Lakes
53	Reservoirs
54	Bays and estuaries
Wetland	
61	Forested and wetland
62	Non-forested and wetland
Barren land	
71	Dry salt flats
72	Beaches
73	Sandy area other than beaches
74	Bare exposed rock
75	Strip mines, quarries, and gravel pits
76	Transitional areas
77	Mixed barren land
Tundra	
81	Shrub and brush tundra
82	Herbaceous tundra
83	Bare ground tundra
84	Wet tundra
85	Mixed tundra
Perennial snow or ice	
91	Perennial snowfields
92	Glaciers

Fire Management

Fire Management includes the following layers:

- Fire Planning
- Fire History
- Wildland Urban Interface

Layer: Fire Planning

The Fire Planning layer contains the following coverage:

- fmz (fire management zones)

Coverage Name: fmz

Coverage Description:

FMZ's (Fire Management Zones) are areas with a similar fire behavior profile or potential, based generally on uniform terrain, slope and fuel conditions and are used in initial attack planning. They are subdivided into Representative Locations (RL's) that describe areas of uniform logistical concerns such as access found within Fire Management Zones.

Associated National Application: NFMAS (National Fire Management Analysis System)

References:

Forest Service Handbook (FSH) 5109.19

The Interagency Initial Attack Assessment (IIAA)Guide, Section 5.1, contains information on FMZ definition and is available at: www.fs.fed.us/fire/planning/nist/IIAA99UserGuide120.doc
Fire Management references can be found at: www.fs.fed.us/fire/gis

Spatial Data Source:

Best available source with a target scale of 1:24000 for Continental U.S., Puerto Rico, and Hawaii and 1:63360 for Alaska.

Horizontal Accuracy:

Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA

Projection:

Forest appropriate. A complete ArcInfo projection file is required.

Datum:

Forest appropriate. A complete ArcInfo projection file is required.

Units of Measure:

Forest appropriate. A complete ArcInfo projection file is required.

Feature Type:

region

Region Subclasses :

Name: fmz
Description: Fire Management Zone – region subclass depicting the fire management zone boundaries.

Name: rl
Description: Representative location – region subclass depicting representative locations within each fire management zone.

INFO Attribute Tables

fmz.patfmz

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	5		-
9	*PERIMETER*	*8*	*18*	*F*	5		-
17	*FMZ#*	*4*	*5*	*B*	-		-
21	*FMZ-ID*	*4*	*5*	*B*	-		-
25	FMZ_ID	10	10	C	-		-
35	FMZ_NAME	34	34	C	-		-
			REDEFINED ITEMS				
32	FMZ	3	3	C	-		-

fmz.patrl

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	5		-
9	*PERIMETER*	*8*	*18*	*F*	5		-
17	*RL#*	*4*	*5*	*B*	-		-
21	*RL-ID*	*4*	*5*	*B*	-		-
25	FMZ_ID	10	10	C	-		-
35	RL	6	6	C	-		-
			REDEFINED ITEMS				
32	FMZ_RL	9	9	C	-		-

Domain for INFO tables, Fire Planning Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
FMZ: Local FMZ number.	
Example: 006	Redefined as the last three characters of the FMZ_ID.
FMZ_ID: Unique ID for a fire management zone within the Federal Government.	
Example: USF0107006	FMZ_ID is a character field built by concatenating: Agency: 3 characters: USF (Forest Service) (see Fire History Domain Table for Agency codes) Unit: 2 characters: 01 (Forest Service Region) Subunit: 2 characters: 07 (Forest number) ID for the FMZ: 3 characters: 006 Each part of the ID should be zero-filled on the left. This scheme enforces uniqueness across the Federal Government.
FMZ_NAME: Local Fire Management Zone number or name.	
Example: West Fork Clear Creek	Unique name or number for a fire management zone within the administrative unit.
FMZ_RL: Combination of the local FMZ number and the RL.	
Example: 00603	Redefined as the last three characters of FMZ_ID and the RL.
RL: Representative location number or name.	
Example: 03	Unique name or number for a representative location within the fire management zone.

Oracle Views

NONE

Layer: Fire History

The Fire History layer contains the following two coverages:

- firehis_pt
- firehis_pl

Coverage Names: firehis_pt, firehis_pl

Coverage Description:

Fire History points represent the location at which fires began. The time span represented in the coverage should be as complete as possible.

Associated National Application: FIRESTAT

Fire History polygons represent the final mapped wildfire perimeter. The tracking of prescribed fires is an optional use (TIM/FACTS will eventually address this issue). These data are maintained at the Forest / District level to track the area affected by fire. Spatial data is stored via a regions feature class due to overlapping fire perimeters.

References:

Forest Service Handbook FSH 5109.14

Forest Service Form FS-5100-29

Fireline Handbook FSH 5109.32/NWCG Handbook 3 PMS 410-1

Fire Management references can be found at:

www.fs.fed.us/fire/gis

Fire history point data references can be found at:

http://famweb.nwcg.gov

Spatial Data Source:

Best available source with a target scale of 1:24,000 for Continental U.S., Puerto Rico, and Hawaii and 1:63,360 for Alaska.

Horizontal Accuracy:

Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA

Projection:

Forest appropriate. A complete ArcInfo projection file is required.

Datum:

Forest appropriate. A complete ArcInfo projection file is required.

Units of Measure:

Forest appropriate. A complete ArcInfo projection file is required.

Feature Type:

Point, region

Region Subclasses:

Name: fire

A region subclass depicting the spatial extent of individual fires.

INFO Attribute Tables

firehis_pt.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	5		-
9	*PERIMETER*	*8*	*18*	*F*	5		-
17	*FIREHIS_PT#*	*4*	*5*	*B*	-		-
21	*FIREHIS_PT-ID*	*4*	*5*	*B*	-		-
25	NIFMID_CN	34	34	C	-		-
59	NIFMID_LNK	17	17	C	-		-
76	FIRE_NAME	34	34	C	-		-
110	FIRE_DAY	2	2	C	-		
112	FIRE_MONTH	2	2	C	-		
114	FIRE_YEAR	4	4	C	-		-
118	DATA_SOURCE	34	34	C	-		-
152	***<Cost>***	***10***	***10***	***I***	***-***		***-***
162	***<Local_Number>***	***8***	***8***	***C***	***-***		***-***
170	***<Cause>***	***2***	***2***	***I***	***-***		***-***
172	***<Reported_Acres>***	***12***	***12***	***N***	***2***		***-***
184	***<Size_Class>***	***1***	***1***	***C***	***-***		***-***
185	***<Agency>***	***3***	***3***	***C***	***-***		***-***
188	***<Comments>***	***60***	***60***	***C***	***-***		***-***

Note: Optional data items are shown in ***<bold italic>.***

firehis_pl.patfire

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	5		-
9	*PERIMETER*	*8*	*18*	*F*	5		-
17	*FIRE#*	*4*	*5*	*B*	-		-
21	*FIRE-ID*	*4*	*5*	*B*	-		-
25	NIFMID_CN	34	34	C	-		-
59	NIFMID_LNK	17	17	C	-		-
76	FIRE_NAME	34	34	C	-		-
110	FIRE_DAY	2	2	C	-		
112	FIRE_MONTH	2	2	C	-		
114	FIRE_YEAR	4	4	C	-		-
118	DATA_SOURCE	34	34	C	-		-
152	***<Cost>***	***10***	***10***	***I***	***-***		***-***
158	***<Local_Number>***	***8***	***8***	***C***	***-***		***-***
170	***<Cause>***	***2***	***2***	***I***	***-***		***-***
172	***<Reported_Acres>***	***12***	***12***	***N***	***2***		***-***
184	***<Size_Class>***	***1***	***1***	***C***	***-***		***-***
185	***<Agency>***	***3***	***3***	***C***	***-***		***-***
188	***<Comments>***	***60***	***60***	***C***	***-***		***-***

Note: Optional data items are shown in <***bold italic***>.

Domain for INFO tables, Fire History Coverage	
ITEM NAME: Description	
Valid Values	**Value Description**
AGENCY: Use coding found in Individual Fire Report Handbook FSH 5109.14, Form FS-5100-29	
ARM	Department of Defense, Army
AFS	Department of Defense, Air Force
BIA	USDI Bureau of Indian Affairs
BLM	USDI Bureau of Land Management
FWS	USDI Fish and Wildlife Service
NAV	Department of Defense Navy
NOP	No Protection
NPS	USDI National Park Service
OTH	Other Federal Agency Land
PVT	Private Land
USF	USDA Forest Service
CAUSE: Use coding for "Statistical Cause" found in Individual Fire Report Handbook FSH 5109.14, Form FS-5100-29	
1	Lightning
2	Equipment use
3	Smoking
4	Campfire
5	Debris burning
6	Railroad
7	Arson
8	Children
9	Miscellaneous
COMMENTS: Fire related comments	
Example: fire perimeter from historic data	Description: Comments related to the fire perimeter
COST: Cost of suppression to the nearest dollar	
Example: 2000000	Description: $2,000,000 was spent on fire.
DATA_SOURCE: Describe the source of spatial data collection use keywords (e.g. GPS) where possible	
GPS	Global Positioning System
IR	Infrared
HD	Hand Drawn
OTHER: IKONOS imagery from 07/07/00	Describe the source of data. Be consistent and as specific as possible when describing other data sources
PI	Photo Interpretation

Domain for INFO tables, Fire History Coverage	
ITEM NAME: Description	
Valid Values	**Value Description**
IRE_NAME: Final name of fire	
Example: Flatrock	Name may contain text and/or numbers.
FIRE_DAY: The day of the month that the geographic data represents	
Example: 04	Date that the data represents. Day must be zero-filled. If only the year is known, enter only the year and note the source in the comments field.
FIRE_MONTH: The month that the geographic data represents	
Example: 07	Date that the data represents. Month must be zero-filled. If only the year is known, enter only the year and note the source in the comments field.
FIRE_YEAR: The year that the geographic data represents	
Example: 1989	Date that the data represents. If only the year is known, enter only the year and note the source in the comments field.
LOCAL_NUMBER: Local identification number	
Example: SO-001	Description: SO tracking number
NIFMID_CN: Control number generated in Oracle to uniquely identify each fire perimeter across all Forest Service Units. These control numbers are only generated for fires reported to the FIRE STAT database. Other fires included in this cover will have a null value for this field. (not Implemented as of 7/15/2002)	
Example: 1789083765	A unique code generated by Oracle or a null value if the fire was not reported to the FIRE STAT database. This field is populated from the Fire Stat database
NIFMID_LNK: Unique code composed of concatenating Agency, unit, subunit, discovery year and fire number as downloaded from the national fire occurrence database in Kansas City via KCFast.	
Example: USF03011989000022	Concatenation of Agency, unit, subunit, discovery year and fire number. These standards are from the KCFast application. Agency: 3 characters: USF (Forest Service) Unit: 2 characters: 03 (Forest Service Region) Subunit: 2 characters: 01 (Forest number) Discovery Year: 4 characters: 1989 Fire number: 6 characters: 000022 All parts of this code are right justified and zero filled.
REPORTED_ACRES: Acres reported	
Example: 275	Description: Final acreage as reported on the final Incident Command System Status Report 209.

Domain for INFO tables, Fire History Coverage	
ITEM NAME: Description	
Valid Values	**Value Description**
SIZE_CLASS: Use coding as defined in the Fireline Handbook, FSH 5109.32a/NWCG Handbook 3 (PMS 410-1)	
A	0 - .25 Acres
B	.26 – 9.9 Acres
C	10 – 99.9 Acres
D	100 – 299.9 Acres
E	300 – 999.9 Acres
F	1000 – 4999.9 Acres
G	5000+ Acres

Oracle Views

NONE

Layer: WUI (Wildland Urban Interface)

The Wildland Urban Interface layer contains the following coverage:

- wui

Coverage name: wui

Coverage Description:	The line, area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels Associated National Application: Reporting for National fire plan accomplishments
References:	A Cohesive Strategy for Protecting People and Sustaining Natural Resources. National Fire Plan
Spatial Data Source:	Best available source with a target scale of 1:63360
Horizontal Accuracy:	Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA
Projection:	Unit appropriate. A complete ArcInfo projection file is required.
Datum:	Unit appropriate. A complete ArcInfo projection file is required.
Units of Measure:	Unit appropriate. A complete ArcInfo projection file is required.
Feature Type:	Polygon

wui.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	5		-
9	*PERIMETER*	*8*	*18*	*F*	5		-
17	*WUI#*	*4*	*5*	*B*	-		-
21	*WUI-ID*	*4*	*5*	*B*	-		-
25	WUI_NAME	34	34	C	-		-
34	WUI_CN	34	34	C	-		-

Domain for INFO tables, Fire Planning Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
WUI_NAME: Local WUI identification.	
Example: Long Gulch	Unique identification
WUI_CN: Unique ID for a fire management zone within the Federal Government.	
Example: 1092837465	Control Number generated by a RDBS

Oracle Views

NONE

Land

Land includes the following layers:

- Land Survey, Land Status
- Special Management Areas
- Geopolitical Units
- Administrative Units

Layer: Land Survey, Land Status

The Land Survey, Land Status layer contains the following coverage:

- land

Coverage Name: land

Coverage Description:	This coverage contains basic land survey and land status boundaries. Land survey boundaries include townships, sections, and tracts. The entire extent of each of these units should be collected, not just the portion on National Forest System lands. The Land Status boundaries include surface ownership, special uses, and proclaimed boundaries. The Land Survey and Land Status boundaries are implemented in the coverage as ArcInfo region subclasses Associated National Application: Automated Lands Program (ALP)
References:	*ALP Coverage Data Dictionary, November 7, 2000* ALP website: http://fsweb.r6.fs.fed.us/alp/spl/doc_files/alp_covdef.doc
Spatial Data Source:	Best available source with a target source scale of 1:24000 for the continental U.S., Puerto Rico, and Hawaii, and 1:63360 for Alaska.
Horizontal Accuracy:	Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA
Projection:	Forest appropriate. A complete ArcInfo projection file is required.
Datum:	Forest appropriate. A complete ArcInfo projection file is required.
Units of Measure:	Forest appropriate. A complete ArcInfo projection file is required.
Feature Type:	Region

Region Subclasses:

Category: Land Survey

Name: townships **Description:** Township - A region subclass depicting an area defined by the Public Lands Survey System Grid that is referenced by its tier and range numbers.

Name: sections

Description: Sections - A region subclass depicting an area defined by the Public Lands Survey System Grid. Normally, 36 sections make up a township.

Name: tracts

Description: Tracts - A region subclass depicting a survey parcel described by a metes and bounds description. Examples are: land lots, housing subdivision lots, mineral surveys, and homestead entry surveys.

Category: Land Status

Name: proclaimed

Description: Proclaimed Boundary - A region subclass depicting the boundaries encompassing the National Forest System (NFS) lands within the original proclaimed National Forests, along with subsequent Executive Orders, Proclamations, Public Laws, Public Land Orders, Secretary of Agriculture Orders, and Secretary of Interior Orders creating modifications thereto, along with lands added to the NFS which have taken on the status of "reserved from the public domain" under the General Exchange Act. The following area types are included: National Forest, Experimental Area, Experimental Forest, Experimental Range, Land Utilization Project, National Grassland, Purchase Unit, and Special Management Area.

Name: spcl_use

Description: Special Uses - A region subclass depicting National Forest System land parcels on which rights and privileges have been granted to authorize occupancy or use for specified activities to be administered by the Forest Service. Examples are: Organizational Camps and Ski Areas.

Name: surf_own

Description: Surface Ownership - A region subclass depicting ownership parcels of the surface estate.

INFO Attribute Tables:

land.pattownships

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*TOWNSHIPS#*	*4*	*5*	*B*	*0*		-
21	*TOWNSHIPS-ID*	*4*	*5*	*B*	*0*		-
25	TOWNSHIP_CN	34	34	C	0		Indexed

land.patsections

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*SECTIONS#*	*4*	*5*	*B*	*0*		-
21	*SECTIONS-ID*	*4*	*5*	*B*	*0*		-
25	SECTION_CN	34	34	C	0		Indexed

land.pattracts

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		--
17	*TRACTS#*	*4*	*5*	*B*	*0*		-
21	*TRACTS-ID*	*4*	*5*	*B*	*0*		-
25	TRACT_CN	34	34	C	0		Indexed

land.patproclaimed

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*PROCLAIMED#*	*4*	*5*	*B*	*0*		-
21	*PROCLAIMED-ID*	*4*	*5*	*B*	*0*		-
25	PROCLAIMED_CN	34	34	C	0		Indexed

land.patspcl_use

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*SPCL_USE#*	*4*	*5*	*B*	*0*		-
21	*SPCL_USE-ID*	*4*	*5*	*B*	*0*		-
25	SPCL_USE_CN	34	34	C	0		Indexed

land.patsurf_own

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*SURF_OWN#*	*4*	*5*	*B*	*0*		-
21	*SURF_OWN-ID*	*4*	*5*	*B*	*0*		-
25	SURF_OWN_CN	34	34	C	0		Indexed

Domain for INFO tables, Land Survey, Land Status Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
PROCLAIMED_CN: Control Number generated by Oracle to uniquely identify each exterior boundary area across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each proclaimed boundary feature to the corresponding row in the Oracle view, PROCLAIMED_BOUNDARIES, by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.
SECTION_CN: Control Number generated by Oracle to uniquely identify each section across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each section to the corresponding row in the Oracle view, PLS_SECTIONS, by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.
SPCL_USE_CN: Control Number generated by Oracle to uniquely identify each special use across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each special use to the corresponding row in the Oracle view, SPCL_USE_AREAS, by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.
SURF_OWN_CN: Control Number generated by Oracle to uniquely identify each surface ownership feature across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each surface ownership feature to the corresponding row in the Oracle view, SURFACE_OWNERSHIP, by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.
TOWNSHIP_CN: Control Number generated by Oracle to uniquely identify each township across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each township to the corresponding row in the ORACLE view, PLS_TOWNSHIPS, by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.
TRACT_CN: Control Number generated by Oracle to uniquely identify each tract across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each tract to the corresponding row in the Oracle view, TRACT_DESCRIPTIONS, by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.

Oracle Views

pls_townships

Name	Null?	Type
CN		VARCHAR2(34)
LEGAL_DESCRIPTION		VARCHAR2(24)

pls_sections

Name	Null?	Type
CN		VARCHAR2(34)
LEGAL_DESCRIPTION		VARCHAR2(33)

proclaimed_boundaries

Name	Null?	Type
CN	NOT NULL	VARCHAR2(34)
FOREST_NAME	NOT NULL	VARCHAR2(255)

spcl_use_areas

Name	Null?	Type
CN	NOT NULL	VARCHAR2(34)
SPECIAL_USE_TYPE	NOT NULL	VARCHAR2(25)
SPECIAL_USE_NAME	NOT NULL	VARCHAR2(240)

surface_ownership

Name	Null?	Type
CN	NOT NULL	VARCHAR2(34)
OWNER_NAME	NOT NULL	VARCHAR2(240)

tract_descriptions

Name	Null?	Type
CN	NOT NULL	VARCHAR2(34)
LEGAL_DESCRIPTION	NOT NULL	VARCHAR2(33)

Domain for ORACLE tables, Land Survey, Land Status Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
CN: Control Number generated by Oracle to uniquely identify each featured view subject across all Forest Service units. It is used to link the spatial data to the Oracle database. It links to subject feature *_CN in the appropriate region attribute table, listed above.	
Example: 99657421210277	A unique code generated by Oracle.
FOREST_NAME: The forest (or other proclaimed area) name.	
Examples: Umpqua National Forest, Black Kettle National Grassland, Green Mountain Purchase Unit, Denbigh Experimental Forest	The name of the National Forest, Experimental Area, Experimental Forest, Experimental Range, Land Utilization Project, National Grassland, Purchase Unit, Special Management Area, or other proclaimed area.
LEGAL_DESCRIPTION: The description of an area that uniquely identifies it within an established survey system.	
Example: T.39S., R.5E., 33	A PLSS Township description.
OWNER_NAME: The full name of the owner of the parcel.	
Example: Jane Q. Public	The full name of the owner of record of the surface rights for the parcel
SPECIAL_USE_NAME: The full name of the Special Use Area.	
Example: Snowbird Ski Resort	The full name of a Special Use Area.
SPECIAL_USE_TYPE: The type of Special Use Area.	
Examples: Youth Camp Summer Home Area	There are 207 members of this domain as of this publication. A complete list can be found in the Oracle table special_use_types which is part of the ALP application

Layer: Special Management Area

The Special Management Area layer contains the following coverage:

- spec_mgt

Coverage Name: spec_mgt

Coverage Description:	This coverage contains special management area boundaries including Other National Designated Areas, Special Interest Management Areas, Wilderness, and Wild and Scenic Rivers. These boundaries are implemented in the coverage as ArcInfo region subclasses. The entire extent of each of these units should be collected, not just the portion on National Forest System lands. Associated National Application: Automated Lands Program (ALP)
References:	*ALP Coverage Data Dictionary, November 7, 2000*) ALP website: http://fsweb.r6.fs.fed.us/alp/spl/doc_files/alp_covdef.doc
Spatial Data Source:	Best available source with a target source scale of 1:24000 for the continental U.S., Puerto Rico, and Hawaii, and 1:63360 for Alaska.
Horizontal Accuracy:	Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA
Projection:	Forest appropriate. A complete ArcInfo projection file is required.
Datum:	Forest appropriate. A complete ArcInfo projection file is required.
Units of Measure:	Forest appropriate. A complete ArcInfo projection file is required.
Feature Type:	region

Region Subclasses:

Name: oth_natl_desg

Description: Other National Designated Areas - A region subclass depicting National Forest System land parcels that have management or use limits placed on them by legal authority. Examples are: National Recreation Area, National Monument, and National Game Refuge.

Name: spec_int_mgt

Description: Special Interest Areas, Special Management Areas - A region subclass depicting National Forest System land parcels that have management or use limits placed on them by legal authority. Examples are: Anadromous Spawning Area, Indian Reserve Classification Area, Archeological Area, and Scenic Area.

Name: wild

Description: Wilderness - A region subclass depicting National Forest System land parcels that have legal descriptions such as National Wilderness Area, Primitive Area, or Wilderness Study Area.

Name: wsr_rivs

Description: Wild and Scenic Rivers - A region subclass depicting areas designated as Wild and Scenic Rivers.

INFO Attribute Tables:

spec_mgt.patoth_natl_desg

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*OTH_NATL_DESG#*	*4*	*5*	*B*	*0*		-
21	*OTH_NATL_DESG-ID*	*4*	*5*	*B*	*0*		-
25	OTH_NATL_DESG_CN	34	34	C	0		Indexed

spec_mgt.patspec_int_mgt

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*SPEC_INT_MGT#*	*4*	*5*	*B*	*0*		-
21	*SPEC_INT_MGT-ID*	*4*	*5*	*B*	*0*		-
25	SPEC_INT_MGT_CN	34	34	C	0		Indexed

spec_mgt.patwild

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*WILD#*	*4*	*5*	*B*	*0*		-
21	*WILD-ID*	*4*	*5*	*B*	*0*		-
25	WILD_CN	34	34	C	0		Indexed

spec_mgt.patwsr_rivs

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*WSR_RIVS#*	*4*	*5*	*B*	*0*		-
21	*WSR_RIVS-ID*	*4*	*5*	*B*	*0*		-
25	WSR_RIVS_CN	34	34	C	0		Indexed

Domain for INFO tables, Special Management Area Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
OTH_NATL_DESG_CN: Control Number generated by Oracle to uniquely identify each Other National Designated area across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each Other National Designated area to the corresponding row in the ORACLEView, OTH_NATL_DESG_AREAS, by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.
SPEC_INT_MGT_CN: Control Number generated by Oracle to uniquely identify each Special Interest/Management area across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each subject feature to the corresponding row in the Oracle View, SPCL_INTRST_MGT_AREAS, by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.
WILD_CN: Control Number generated by Oracle to uniquely identify each Wilderness area across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each Wilderness area to the corresponding row in the Oracle View, WILDERNESS_BOUNDARIES, by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.
WSR_RIVS_CN: Control Number generated by Oracle to uniquely identify each Wild & Scenic River area across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each Wild & Scenic River area to the corresponding row in the Oracle View, WILD_SCENIC_RIVERS, by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.

Oracle Views

oth_natl_desg_areas

Name	Null?	Type
CN	NOT NULL	VARCHAR2(34)
AREA_TYPE		VARCHAR2(35)
AREA_NAME		VARCHAR2(80)

spcl_intrst_mgt_areas

Name	Null?	Type
CN	NOT NULL	VARCHAR2(34)
AREA_TYPE		VARCHAR2(35)
AREA_NAME		VARCHAR2(80)

wilderness_boundaries

Name	Null?	Type
CN	NOT NULL	VARCHAR2(34)
WILDERNESS_NAME		VARCHAR2(80)

wild_scenic_rivers

Name	Null?	Type
CN	NOT NULL	VARCHAR2(34)
NAME		VARCHAR2(80)

Domain for Oracle tables, Special Management Area Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
AREA_NAME: The full name of the Special Interest Management Area or Other Nationally Designated Area.	
Example: Flaming Gorge National Recreation Area	The full name of an Other Nationally Designated Area.
AREA_TYPE: The type of Special Interest Management Area or Other Nationally Designated Area.	
Anadromous Spawning Area Archeological Area Botanical Area Eagle Wildlife Management Area Environmental Sensitive Area Experimental Forest Experimental Research Area Geological Area Geothermal Area LUD II Management Area Multiple Use Management Area National Game Refuge National Historic Area National Historic Trail National Monument National Recreation Area National Recreation Trail National Scenic and Research Area National Scenic Area National Scenic Trail National Volcanic Monument Natural Area Neoteric Area Paleontological Area Recreation Area Research Natural Area Scenic Area Watershed Area Wildlife Management Area Zoological Area	The types of Special Interest Management Area or Other Nationally Designated Area.
CN: Control Number generated by Oracle to uniquely identify each featured view subject across all Forest Service units. It is used to link the spatial data to the Oracle database. It links to subject feature *_CN in the appropriate region attribute table, listed above.	
Example: 99657421210277	A unique code generated by Oracle.
NAME: The full name of the wild and scenic river.	
Example: Eleven Point Wild and Scenic River	The fullname of a Wild and Scenic River.
WILDERNESS_NAME: The full wilderness name.	
Example: The Frank Church River of No Return Wilderness.	The full name of a wilderness area.

Layer: Geopolitical Units

The Geopolitical Units layer contains the following coverages:

- state
- county
- cong_dist
- civil_div
- native_land

Coverage Names: state, county, cong dist, civil div, native land

Coverage Description: state

This coverage contains polygons depicting a geopolitical unit of the United States.

Associated National Application: Automated Lands Program (ALP)

Coverage: county

This coverage contains polygons depicting counties. A county is a first-order legal and/or statistical subdivision of a State and/or statistically equivalent entity. Examples of counties include: the parishes of Louisiana; the boroughs and census areas of Alaska; The District of Columbia; the independent cities of Maryland, Missouri, Nevada, and Virginia; a part of Yellowstone National Park in Montana; and various entities in the possessions and associated areas of the United States.

Associated National Application: Automated Lands Program (ALP)

Coverage: cong dist

This coverage contains polygons depicting congressional districts.

Associated National Application: Automated Lands Program (ALP)

Coverage: civil div

This coverage contains polygons depicting census designated places, cities, and incorporated places.

Associated National Application: Automated Lands Program (ALP)

Coverage: native land

This coverage contains polygons depicting legal and statistical American Indian and Alaska Native entities. This includes such entities as American Indian reservations, Alaska Native Regional Corporations, Alaska Native village statistical areas, tribal designated statistical areas, and state designated American Indian statistical areas.

Associated National Application: Automated Lands Program (ALP)

References:

ALP Coverage Data Dictionary, November 7, 2000

ALP website:
http://fsweb.r6.fs.fed.us/alp/spl/doc_files/alp_covdef.doc

Spatial Data Source:	Best available source with a target source scale of 1:24000 for the continental U.S., Puerto Rico, and Hawaii, and 1:63360 for Alaska.
Horizontal Accuracy:	Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA
Projection:	Forest appropriate. A complete ArcInfo projection file is required.
Datum:	Forest appropriate. A complete ArcInfo projection file is required.
Units of Measure:	Forest appropriate. A complete ArcInfo projection file is required.
Feature Type:	polygon

INFO Attribute Tables:

state.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*STATE#*	*4*	*5*	*B*	*0*		-
21	*STATE-ID*	*4*	*5*	*B*	*0*		-
25	STATE_CN	34	34	C	0		Indexed

county.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*COUNTY#*	*4*	*5*	*B*	*0*		-
21	*COUNTY-ID*	*4*	*5*	*B*	*0*		-
25	COUNTY_CN	34	34	C	0		Indexed

cong_dist.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*CONG_DIST#*	*4*	*5*	*B*	*0*		-
21	*CONG_DIST-ID*	*4*	*5*	*B*	*0*		-
25	CONG_DIST_CN	34	34	C	0		Indexed

civil_div.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*CIVIL_DIV#*	*4*	*5*	*B*	*0*		-
21	*CIVIL_DIV-ID*	*4*	*5*	*B*	*0*		-
25	CIVIL_DIV_CN	34	34	C	0		Indexed

native_land.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*NATIVE_LAND#*	*4*	*5*	*B*	*0*		-
21	*NATIVE_LAND-ID*	*4*	*5*	*B*	*0*		-
25	NATIVE_LAND_CN	34	34	C	0		Indexed

Domain for INFO tables, Geopolitical Units Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
STATE_CN: Control number generated by Oracle to uniquely identify each State across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each State to the corresponding row in the ORACLE View, STATES, by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.
COUNTY_CN: Control number generated by Oracle to uniquely identify each county across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each county to the corresponding row in the ORACLE View, COUNTIES, by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.
CONG_DIST_CN: Control number generated by Oracle to uniquely identify each congressional district across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join congressional district to the corresponding row in the Oracle View, CONGRESSIONAL_DISTRICTS, by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.
CIVIL_DIV_CN: Control number generated by Oracle to uniquely identify each civil division across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each civil division to the corresponding rows in the ORACLE View, [TO BE DEFINED AT A LATER DATE], by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.
NATIVE_LAND_CN: Control number generated by Oracle to uniquely identify each native land unit across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each native land unit to the corresponding rows in the ORACLE View, [TO BE DEFINED AT A LATER DATE], by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.

Oracle Views

states

Name	Null?	Type
CN	NOT NULL	VARCHAR2(34)
STATE_CODE	NOT NULL	VARCHAR2(7)
STATE		VARCHAR2(7)
STATE_NAME	NOT NULL	VARCHAR2(255)

counties

Name	Null?	Type
CN	NOT NULL	VARCHAR2(34)
STATE_CN	NOT NULL	VARCHAR2(34)
STATE_CODE	NOT NULL	VARCHAR2(7)
STATE		VARCHAR2(7)
COUNTY_CODE	NOT NULL	VARCHAR2(7)
COUNTY_NAME	NOT NULL	VARCHAR2(255)

congressional_districts

Name	Null?	Type
CN	NOT NULL	VARCHAR2(34)
STATE_CODE	NOT NULL	VARCHAR2(7)
CONG_DIST_NO	NOT NULL	VARCHAR2(7)
CONG_DIST_NAME		VARCHAR2(4000)

Note: View definitions for civil_div and native_land features will be added at a later time.

Domain for Oracle tables, Geopolitical layer	
ITEM NAME: Description	
Valid Values	**Value Description**
CN: Control Number generated by Oracle to uniquely identify each featured view subject across all Forest Service units. It is used to link the spatial data to the Oracle database. It links to subject feature *_CN in the appropriate polygon attribute table, listed above.	
Example: 99657421210277	A unique code generated by Oracle.
COUNTY_NAME: The full name of the county.	
Example: Bernalillo	The full name of a county.
COUNTY_CODE: Federal Information Processing System (FIPS) code for the county or political township. Sequential FIPS code for each county or political township. Ranges from 001 to 999. The FIPS code numbering system for counties and political townships is unique only within each state.	
Example: 021	In the state of Washington, the name of the county with a county_code equal to '021' is Franklin.
CONG_DIST_NAME: The full name of the congressional district.	
Example: 3rd District, California, 107th Congress	The full name of a Congressional District
CONG_DIST_NO: The number of the congressional district. Sequential numbering system unique to each state ranges from 00 to 99.	
Example: 23	The 23rd congressional district of California, Florida, New York, or Texas.

Domain for Oracle tables, Geopolitical layer	
ITEM NAME: Description	
Valid Values	**Value Description**
STATE: The two character United States Postal Service state abbreviation code.	
AK	Alaska
AL	Alabama
AZ	Arizona
AR	Arkansas
CA	California
CZ	Canal Zone
CO	Colorado
CT	Connecticut
DE	Delaware
DC	District of Columbia
FL	Florida
GA	Georgia
GU	Guam
HI	Hawaii
ID	Idaho
IL	Illinois
IN	Indiana
IA	Iowa
KS	Kansas
KY	Kentucky
LA	Louisiana
ME	Maine
MD	Maryland
MA	Massachusetts
MI	Michigan
MN	Minnesota
MS	Mississippi
MO	Missouri
MT	Montana
NB	Nebraska
NV	Nevada
NH	New Hampshire
NJ	New Jersey
NM	New Mexico
NY	New York
NC	North Carolina
ND	North Dakota
OH	Ohio
OK	Oklahoma
OR	Oregon
PA	Pennsylvania
PR	Puerto Rico
RI	Rhode Island
SC	South Carolina
SD	South Dakota
TN	Tennessee
TX	Texas
UT	Utah
VT	Vermont
VA	Virginia
VI	Virgin Islands
WA	Washington
WV	West Virginia
WI	Wisconsin
WY	Wyoming

Domain for Oracle tables, Geopolitical layer	
ITEM NAME: Description	
Valid Values	**Value Description**
STATE_CODE: Federal Information Processing System (FIPS) code for the state. Sequential FIPS code for each state. Ranges from 01 to 78.	
Example: 32	FIPS code for the state of Nevada
STATE_CN: Control Number generated by Oracle to uniquely identify each state across all Foest Srervice units. It is used to link the spatial data to the Oracle database. It links to subject feature *_CN in the appropriate polygon attribute table listed above.	
Example: 99364152210277	A unique code generated by Oracle.
STATE_NAME: The full name of the state.	
Example: Colorado	The full name of a state.

Layer: Administrative Units

The Administrative Units layer contains the following coverage:

- admin_unit

Coverage Name: admin_unit

Coverage Description:

This coverage contains administrative unit boundaries including administrative forest and ranger district boundaries depicted as region subclasses.

Associated National Application: Automated Lands Program (ALP)

References:

ALP Coverage Data Dictionary, November 7, 2000

ALP website:
http://fsweb.r6.fs.fed.us/alp/spl/doc_files/alp_covdef.doc

Spatial Data Source:

Best available source with a target source scale of 1:24000 for the continental U.S., Puerto Rico, and Hawaii, and 1:63360 for Alaska.

Horizontal Accuracy:

Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA

Projection:

Forest appropriate. A complete ArcInfo projection file is required.

Datum:

Forest appropriate. A complete ArcInfo projection file is required.

Units of Measure:

Forest appropriate. A complete ArcInfo projection file is required.

Feature Type:

region

Region Subclasses:

Name: admin_forest

Description: Administrative Forest - A region subclass depicting the boundary encompassing all the National Forest System (NFS) lands administered by the Administrative Unit. The boundary encompasses private lands, other governmental agency lands, and may contain NFS lands within the proclaimed boundaries of another Administrative Unit. All NFS lands fall within one, and only one, Administrative National Forest Boundary.

Name: ranger_dist

Description: Ranger District - A region subclass-depicting ranger district boundaries.

INFO Attribute Tables:

admin_unit.patadmin_forest

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*ADMIN_FOREST#*	*4*	*5*	*B*	*0*		-
21	*ADMIN_FOREST-ID*	*4*	*5*	*B*	*0*		-
25	ADMIN_FOREST_CN	34	34	C	0		Indexed

admin_unit.patranger_dist

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*RANGER_DIST#*	*4*	*5*	*B*	*0*		-
21	*RANGER_DIST-ID*	*4*	*5*	*B*	*0*		-
25	RANGER_DIST_CN	34	34	C	0		Indexed

Domain for INFO tables, Administrative Units Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
ADMIN_FOREST_CN: Control Number generated by Oracle to uniquely identify each Administrative Forest across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each Administrative Forest to the corresponding row in the Oracle view, FS_FORESTS, by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.
RANGER_DIST_CN: Control Number generated by Oracle to uniquely identify each Ranger District across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each Ranger District to the corresponding row in the Oracle view, FS_DISTRICTS, by matching with the column CN in that view.	
Example: 99657421210277	A unique code generated by Oracle.

Oracle Views

fs_forests

Name	Null?	Type
CN	NOT NULL	VARCHAR2(34)
REGION		VARCHAR2(80)
FOREST_NUMBER	NOT NULL	VARCHAR2(2)
FOREST_NAME		VARCHAR2(80)

fs_districts

Name	Null?	Type
CN	NOT NULL	VARCHAR2(34)
REGION	NOT NULL	VARCHAR2(2)
FOREST_NAME		VARCHAR2(80)
DISTRICT_NUMBER	NOT NULL	VARCHAR2(2)
DISTRICT_NAME		VARCHAR2(80)

Domain for Oracle tables, Administrative Units Layer	
COLUMN NAME: Description	
Valid Values	**Value Description**
CN: Control Number generated by Oracle to uniquely identify each featured view subject across all Forest Service units. It is used to link the spatial data to the Oracle database. It links to subject feature *_CN in the appropriate region attribute table, listed above.	
Example: 99657421210277	A unique code generated by Oracle.
DISTRICT_NAME: The full name of the ranger district.	
Example: Amador Ranger District	The full name of a ranger district.
DISTRICT_NUMBER: The number of the ranger district. The forest assigned number for a ranger district. District numbers are unique only within each forest.	
Example: 2	The forest assigned number for a ranger district. District numbers are unique only within each forest.
FOREST_NAME: The full name of the national forest.	
Example: Monongahela National Forest	The full name of a national forest.
FOREST_NUMBER: The number of the national forest. The region assigned number for a forest. Forest numbers are unique only within a region.	
Example: 12	Forest number in a given region.
REGION: The Forest Service region number.	
01	Northern Region
02	Rocky Mountain Region
03	Southwestern Region
04	Intermountain Region
05	Pacific Southwest Region
06	Pacific Northwest Region
08	Southern Region
09	Eastern Region
10	Alaska Region

Recreation

Recreation here includes the following layers:

- Recreation Sites
- Recreation Opportunity Spectrum

Layer: Recreation Sites

The Recreation Sites layer contains the following coverages:

- rec_site_pt
- rec_site_ln
- rec_site_pl.

Coverage Names: rec_site_pt, rec_site_ln, rec_site_pl

Coverage Description:

Describes the spatial location of recreation sites within or in close proximity to an administrative unit.

Recreation sites are stored in three covers. The cover rec_site_pt represents recreation sites so small they are displayed as points, rec_site_pl represents recreation sites large enough to be represented by area features, and rec_site_ln represents recreation sites that are represented by lines. Any type of recreation site may be contained in any of the covers but any given recreation site must be contained in only one of the three covers.

Recreation sites are grouped hierarchically. For example, a campground may be composed of many loops, which may be composed of many campsites. The campground may also include other facilities such as boating areas and picnic grounds. Campgrounds may be grouped into complexes. There are four levels to this hierarchy but not all levels are necessarily used for any given site and some recreation subtypes may occur at more than one level of the hierarchy, depending on which other recreation sites they are associated with on the ground. Although this hierarchy is not described in the GIS Core Data, it is described in the associated INFRA ORACLE tables.

Associated National Application: INFRA Recreation

References:

FSH 2330 and 2340

INFRA Web Page: http://pcs27.f16.r6.fs.fed.us/infra

Spatial Data Source:

Best available source with a target source scale of 1:24k for continental U.S., Puerto Rico, and Hawaii and 1:63,360 for Alaska.

Horizontal Accuracy:

Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA

Projection:	Forest appropriate. A complete ArcInfo projection file is required.
Datum:	Forest appropriate. A complete ArcInfo projection file is required.
Units of Measure:	Forest appropriate. A complete ArcInfo projection file is required.
Feature Type:	point, region, route
Region Subclasses:	**Name:** developed **Description:** A region subclass depicting developed recreation sites that are large enough to be represented as areas or polygons.
Route Systems:	**Name: developed** **Description:** A route system depicting developed recreation sites that are represented as lines.

INFO Attribute Tables

rec_site_pt.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*REC_SITE_PT#*	*4*	*5*	*B*	-		-
21	*REC_SITE_PT-ID*	*4*	*5*	*B*	-		-
25	REC_SITE_ID	15	15	C	-	ID	Indexed
40	REC_SITE_CN	34	34	C	-	CN#	Indexed

rec_site_ln. ratdeveloped

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*DEVELOPED#*	*4*	*5*	*B*	-		-
5	*DEVELOPED-ID*	*4*	*5*	*B*	-		-
9	REC_SITE_ID	15	15	C	-	ID	Indexed
24	REC_SITE_CN	34	34	C	-	CN#	Indexed

rec_site_pl.patdeveloped

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*DEVELOPED#*	*4*	*5*	*B*	-		-
21	*DEVELOPED-ID*	*4*	*5*	*B*	-		-
25	REC_SITE_ID	15	15	C	-	ID	Indexed
40	REC_SITE_CN	34	34	C	-	CN#	Indexed

Domain for INFO tables, Recreation Sites Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
REC_SITE_CN: Control number generated in Oracle to uniquely identify each recreation site across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each feature to the corresponding rows in the view GC_DEV_REC_SITES_V by matching with the column CN.	
Example: 9909764210277	A unique code generated by Oracle.
REC_SITE_ID: The local identifier for each feature. This item uniquely identifies recreation sites within a Forest Service unit.	
Example: 2740	Values are established on each unit.

Oracle View

gc_dev_rec_sites_v

Name	Null?	Type
CN	NOT NULL	VARCHAR2(34)
ID		VARCHAR2(15)
NAME		VARCHAR2(60)
STATUS		VARCHAR2(40)
LU_SUBTYPE		VARCHAR2(40)
DEV_SCALE_CODE		VARCHAR2(40)
OPERATION_CODE		VARCHAR2(40)
OPERATOR_CODE		VARCHAR2(40)
OWNERSHIP_CODE		VARCHAR2(40)
RESERVABLE_IND		VARCHAR2(1)
ROS_CODE		VARCHAR2(40)
CAPACITY		NUMBER(6,1)

Domain for Oracle tables, Recreation Sites Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
CAPACITY: The capacity of the site, also known as PAOT (persons at one time).	
Example: 24.2	Capacity of the site in PAOTs (persons at one time).
CN: Control number generated in Oracle to uniquely identify each feature across all Forest Service units. It is used to link the spatial data to the Oracle database. It links to REC_SITE_CN in the feature attribute tables REC_SITE_PT.PAT, REC_SITE_LN.RATDEVELOPED, and REC_SITE_PL.PATDEVELOPED.	
Example: 9909764210277	A unique code generated by Oracle.
DEV_SCALE_CODE: The development scale for the site.	
1	Most primitive
2	Less primitive
3	Least developed
4	Developed
5	Most developed
ID: The local identifier for each recreation site. This column uniquely identifies the site within a Forest Service unit.	
Example: 2740	Values are established on each unit.

Domain for Oracle tables, Recreation Sites Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
LU_SUBTYPE: A type category for this site.	
BOATING	Boating Site
CAMPSITE	Campsite
CAMPSITE TENT	Campsite for Tents
CAMPSITE TENT/TRAILER/RV	Campsite for Tents, Trailers, and RVs
COMPLEX	Complex of Recreation Sites
DOCUMENTARY_SITE	Documentary Site
FAMILY CAMPGROUND	Family Campground Area
FAMILY PICNIC	Family Picnic Area
FIRE LOOKOUTS CABINS OVERNIGHT	Fire Lookout or Cabin available for overnight use
FISH VIEWING SITE	Fish Viewing Site
FISHING SITE	Fishing Site
GROUP CAMPGROUND	Group Campground
GROUP PICNIC GROUND	Group Picnic Area
GROUPED COST SITE	Grouped Cost Site
HORSE CAMP	Horse Camp
HOTEL/LODGE/RESORT FS OWNED	Hotel, Lodge, or Resort owned by USDA Forest Service
HOTEL/LODGE/RESORT PRIVATELY OWNED	Hotel, Lodge, or Resort under private ownership.
INFORMATION SITE	Information Site
INTERPRETIVE SITE ADMIN	Administrative Interpretive Site
INTERPRETIVE SITE MAJOR	Major Interpretive Site
INTERPRETIVE SITE MINOR	Minor Interpretive Site
LOOP	Campground Loop
OBSERVATION SITE	Observation Site
ORGANIZATION SITE FS OWNED	Site for Organized Groups, owned by USDA Forest Service
ORGANIZATION SITE PRIVATELY OWNED	Site for Organized Groups, owned by a private organization
OTHER RECREATION CONCESSION SITE	Recreation Concession Site -- Other
OTHER WINTER SPORTS SITE	Winter Sports Site -- Other
PICNIC SITE	Picnic Area
PLAYGROUND PARK SPECIAL SPORT SITE	Playground or Special Sports Site
RECREATION RESIDENCE	Recreation Residence
SKI AREA	Ski Area
SKI AREA ALPINE	Alpine Ski Area
SKI AREA NORDIC	Nordic Ski Area

Domain for Oracle tables, Recreation Sites Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
LU_SUBTYPE, cont.: A type category for this site.	
SNOWPARK	Snowpark
SWIMMING	Swimming Area
TRAILHEAD	Trailhead
WILDLIFE VIEWING SITE	Wildlife Viewing Site
NAME: The name of this recreation site.	
Example: Spring Bar Campground	Values are established on each unit.
OPERATION_CODE: The operational status of the recreation site.	
CLOSED	Site is closed
LIMITED	Site use is limited
OPEN	Site is open
POSTED	Site use is posted
OPERATOR_CODE: The operator of this site.	
CONCESSIONAIRE	Concessionaire
CONTRACTOR	Contractor
COUNTY	County
FOREST SERVICE	Forest Service
MUNICIPAL	Municipal
OTHER FEDERAL	Federal, other than Forest Service
OTHER LOCAL	Local Government, other than Municipal or County
PRIVATE-OTHER	Private, not for profit organization
PRIVATE-PROFIT	Private, for profit organization
STATE	State
OWNERSHIP_CODE: The owner of this site.	
COUNTY	County
FOREST RESEARCH (FS)	USDA Forest Service, Research
INTERNATIONAL FORESTRY (FS)	USDA Forest Service, International Forestry
JOB CORPS	Job Corps
LEASED ASSETS (FS)	Leased by the Forest Service
LEASED ASSETS (GSA)	Leased by GSA
MUNICIPAL	Municipal
NATIONAL FOREST (FS)	USDA Forest Service, National Forest System
OTHER FEDERAL	Federal, Other than Forest Service
OTHER LOCAL	Local Government other than Municipal or County

Domain for Oracle tables, Recreation Sites Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
OWNERSHIP_CODE, cont.: The owner of this site.	
PRIVATE-OTHER	Private, Other
PRIVATE-PROFIT	Private, for profit
QUASI-PUBLIC	Quasi-Public
STATE	State
STATE & PRIVATE FORESTRY (FS)	USDA Forest Service, State and Private Forestry
TRUST FUNDS (FS)	USDA Forest Service, Trust Funds
WORKING CAPITAL FUND (FS)	USDA Forest Service, Working Capital Fund
RESERVABLE_IND: Indicator of whether the site can be reserved.	
N	The site cannot be reserved.
Y	The site can be reserved.
ROS_CODE: The ROS (Recreation Opportunity Spectrum) class for this site.	
PRIMITIVE	No facilities for user comfort. Rustic and rudimentary facilities for site protection only.
ROADED NATURAL	Rustic facilities providing some comfort for the user as well as site protection.
RURAL	Some facilities designed primarily for user comfort and convenience.
SEMI-PRIMITIVE NON-MOTORIZED	Rustic and rudimentary facilities primarily for site protection.
SEMI_PRIMITIVE MOTORIZED	Rustic and rudimentary facilities primarily for site protection.
URBAN	Facilities mostly designed for user comfort and convenience.
STATUS: The development status of this site.	
ABANDONED	Abandoned Site
EXISTING	Existing and Operating Site
OBLITERATED	Obliterated Site
PLANNED	Planned Site
UNDER CONSTRUCTION	Site Under Construction

Layer: Recreation Opportunity Spectrum

The Recreation Opportunity Spectrum layer contains the following coverage:

- ROS

Coverage Name: ROS

Coverage Description:

A coverage describing the spatial location of areas showing the type of Recreation Opportunity Settings that exist. The ROS coverage is initially derived from other entities in the Data Dictionary (travel routes, developed recreation sites, etc.). Additional information, such as current management, is then utilized to adjust boundaries. The complete process is included in the National ROS Mapping Protocol and listed below, under "References".

Associated National Applications: Forest Plan revision, water shed assessments, project level planning, and monitoring.

References:

FSM 2310 and 2330

ROS User Guide, USDA Forest Service, 1982 -

http://roadless.fs.fed.us/bgdocuments2.shtml

ROS Primer and Field Guide, USDA Forest Service, R6-REC-021-90, April 1990

Spatial Data Source:

Best available source with a target source scale of 1:24k for continental U.S., Puerto Rico, and Hawaii and 1:63,360 for Alaska.

Horizontal Accuracy:

Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA

Projection:

Forest appropriate. A complete ArcInfo projection file is required.

Datum:

Forest appropriate. A complete ArcInfo projection file is required.

Units of Measure:

Forest appropriate. A complete ArcInfo projection file is required.

Feature Type:

polygon

Region Subclasses:

NOTE: No regions are included in this layer as National Standards. There may be additional subclasses added in the future for designated Wilderness, Rivers, etc.

There may also be Region-specific subclasses defined and utilized. Since there are not National requirements for these subclasses, they are not included in this protocol.

INFO Attribute Tables

ros.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*ROS #*	*4*	*5*	*B*	-		-
21	*ROS -ID*	*4*	*5*	*B*	-		-
25	ROS_CODE	5	5	C	-		Indexed

Domain for INFO tables, Recreation Opportunity Spectrum Layer	
COLUMN NAME: Description	
Valid Values	**Value Description**
ROS_CODE: Recreation Opportunity spectrum code.	
U	Urban
R	Rural
RN	Roaded Natural
SPM	Semi-Primitive Motorized
SPNM	Semi-Primitive Non-motorized
P	Primitive

Range

Range includes the following layer:

- Allotment

Layer: Allotment

The Allotment layer contains the following coverage:

- allotment

Coverage Name: allotment

Coverage Description: This coverage includes range allotments with their associated pastures. Each allotment is a designated area of land available for livestock grazing, and may be subdivided into pastures necessary for grazing management.

Associated National Application: INFRA Range

References: FSM 2220

INFRA Web Page: http://pcs27.f16.r6.fs.fed.us/infra

Spatial Data Source: Best available source with a target scale of 1:24000 for Continental U.S., Puerto Rico, and Hawaii and 1:63360 for Alaska.

Horizontal Accuracy: Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA

Projection: Forest appropriate. A complete ArcInfo projection file is required.

Datum: Forest appropriate. A complete ArcInfo projection file is required.

Units of Measure: Forest appropriate. A complete ArcInfo projection file is required.

Feature Type: region

Region Subclasses:

Name: allotment

Description: Depicts the gross allotment boundary

Name: pasture

Description: Depicts pasture boundaries within each allotment.

INFO Attribute Tables

allotment.patallotment

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*ALLOTMENT#*	*4*	*5*	*B*	-		-
21	*ALLOTMENT-ID*	*4*	*5*	*B*	-		-
25	ALLOTMENT_NO	5	5	C	-	ID	Indexed
30	ALLOTMENT_CN	34	34	C	-	CN#	Indexed

allotment.patpasture

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*PASTURE#*	*4*	*5*	*B*	-		-
21	*PASTURE-ID*	*4*	*5*	*B*	-		-
25	ALLOTMENT_NO	5	5	C	-		-
30	PASTURE_NO	3	3	C	-	ID	Indexed
33	ALLOTMENT_CN	34	34	C	-		-
67	PASTURE_CN	34	34	C	-	CN#	Indexed

Domain for INFO tables, Allotment Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
ALLOTMENT_CN: Control number generated in Oracle to uniquely identify each allotment across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each region to the corresponding rows in the view gc_allotments_v by matching with the Column RMU_CN in that view.	
Example: 12345678010277	A unique code generated by Oracle.
ALLOTMENT_NO: The unique number assigned by the Forest to each allotment. This number is unique within a Forest but may not be unique between Forests	
Example: 04021	Five characters. Use leading zeros if necessary to make 5 characters.
PASTURE_CN: Control number generated in Oracle to uniquely identify each pasture across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each region to the corresponding rows in the view gc_pastures_v by matching with the Column RMU_CN in that view.	
Example: 2345666010277	A unique code generated by Oracle.
PASTURE_NO: The unique number assigned by the Forest to each pasture within an allotment.	
Example: 001 - 100	Three character, use leading zeros as necessary.

ORACLE Views

gc_allotments_v

Name	Null?	Type
RMU_CN	NOT NULL	VARCHAR2(34)
RMU_ID		VARCHAR2(15)
RMU_NAME		VARCHAR2(60)
RMU_TYPE		VARCHAR2(40)
NEPA_DECISIONS_APPROVED_FY		INTEGER(4)
BIOLOGICAL_OPINIONS_APPROVED_FY		INTEGER(4)
ALLOTMENT_MANAGEMENT_PLAN_APPROVED_FY		INTEGER(4)
MONIT_PERMITTEE_COMPLIANCE_FY		INTEGER(4)
CATTLE		VARCHAR2(3)
GOATS		VARCHAR2(3)
HORSES		VARCHAR2(3)
MULES		VARCHAR2(3)
SHEEP		VARCHAR2(3)

gc_pastures_v

Name	Null?	Type
RMU_CN	NOT NULL	VARCHAR2(34)
RMU_ID		VARCHAR2(15)
RMU_NAME		VARCHAR2(60)
RMU_TYPE		VARCHAR2(40)
STANDARDS_MET		VARCHAR2(13)
CATTLE		VARCHAR2(3)
GOATS		VARCHAR2(3)
HORSES		VARCHAR2(3)
MULES		VARCHAR2(3)
SHEEP		VARCHAR2(3)

Domain for Oracle tables, Allotment Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
ALLOTMENT_MANAGEMENT_PLAN_APPROVED_FY: The fiscal year in which the allotment management plan for this allotment was approved.	
Example: 1999	The allotment management plan for this allotment was approved in 1999.
BIOLOGICAL_OPINIONS_APPROVED_FY: The fiscal year in which the biological opinion for T&E species was approved for this allotment.	
Example: 1999	The biological opinion for this allotment was approved in 1999.
CATTLE: Indicates whether cattle are permitted for this RMU.	
NO	Cattle are not permitted for this RMU.
YES	Cattle are permitted for this RMU.
GOATS: Indicates whether goats are permitted for this RMU.	
NO	Goats are not permitted for this RMU.
YES	Goats are permitted for this RMU.
HORSES: Indicates whether horses are permitted for this RMU.	
NO	Horses are not permitted for this RMU.
YES	Horses are permitted for this RMU.
MONIT_PERMITTEE_COMPLIANCE_FY: The fiscal year in which permittee compliance on this allotment was last monitored.	
Example: 1999	The permittee compliance was last monitored on this allotment in 1999.
MULES: Indicates whether mules are permitted for this RMU.	
NO	Mules are not permitted for this RMU.
YES	Mules are permitted for this RMU.
NEPA_DECISIONS_APPROVED_FY: The fiscal year in which the NEPA decision for grazing on this allotment was approved.	
Example: 1999	The NEPA decision to allow grazing on this allotment was approved in 1999.
RMU_CN: Oracle generated control number used to link the spatial data to the Oracle database. It links to ALLOTMENT_CN in the allotment.patallotment region attribute table and to PASTURE_CN in the allotment.patpasture region attribute table .	
Example: 1003867678010277	Generated by Oracle.
RMU_ID: Local identifier for this Range Management Unit (RMU). It is the allotment or pasture id used by the local unit.	
Example: 00101	Values are established on each unit.
RMU_NAME: The name of this Range Management (RMU). It is the name attached by the local unit to the pasture or allotment.	
Example: ALLISON-BERG	Values are established on each unit.

Domain for Oracle tables, Allotment Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
RMU_TYPE: A type category for this Range Management Unit (RMU).	
ACTIVE ALLOTMENT	Livestock grazing allotments, including pack and saddle stock allotments
CLOSED ALLOTMENT	Areas having suitable livestock range that have been closed to livestock grazing by administrative decisions or actions.
OTHER ALLOTMENT	Allotments not included in one of the other designations. Include miscellaneous use allotments in this type
PASTURE	Subdivision of an allotment
VACANT ALLOTMENT	Area where a livestock grazing permit has not been issued. The allotment may or may not be available for use if a grazing application is made.
SHEEP: Indicates whether sheep are permitted for this RMU.	
NO	Sheep are not permitted for this RMU.
YES	Sheep are permitted for this RMU.
STANDARDS_MET: An indication of whether or not the standards for the pasture are being met.	
NO	Standards for the pasture are not being met.
NOT MONITORED	Monitoring for standards compliance in the pasture has not been done.
UNCERTAIN	It is not known whether or not standards are being met in this pasture.
YES	Standards for the pasture are being met.

Scenery

Scenery includes the following layers:

- Scenic classes
- Existing scenic integrity
- Scenic integrity objectives

Layer: Scenic Classes

The scenic classes layer contains the following coverages:

- cl _travelways – concern levels for travelways
- cl_use_pts – concern levels for use points
- visibility – landscape visibility (concern levels, distance zones, and seen area)
- scen_attract – scenic attractiveness
- scen_classes – scenic classes (landscape visibility and scenic attractiveness)

Coverage Name: cl_travelways

Coverage Description:	A coverage describing the spatial location of the Scenery Management System Concern Levels depicting up to three levels of travelways.
References:	Landscape Aesthetics – A Handbook for Scenery Management, USDA Forest Service, Agriculture Handbook Number 701.
Spatial Data Source:	Best available source with a target source scale of 1:24k for continental U.S., Puerto Rico, and Hawaii and 1:63,360 for Alaska.
Horizontal Accuracy:	Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA
Projection:	Forest appropriate. A complete ArcInfo projection file is required.
Datum:	Forest appropriate. A complete ArcInfo projection file is required.
Units of Measure:	Forest appropriate. A complete ArcInfo projection file is required.
Feature Type:	Arcs
Arcs:	**Description**: This is a collection of primary and secondary roads, trails, boating routes, and other routes used by the public. Three categories measure the degree of public importance attached to the scenery viewed from these travelways. This coverage is initially created by extracting appropriate features from other existing coverages, such as travel routes, and adding unique features not found elsewhere.

INFO Attribute Tables

cl_travelways.aat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*FNODE#*	*4*	*5*	*B*	-		-
5	*TNODE#*	*4*	*5*	*B*	-		-
9	*LPOLY#*	*4*	*5*	*B*	-		-
13	*RPOLY#*	*4*	*5*	*B*	-		-
17	*LENGTH*	*4*	*12*	*F*	*3*		-
21	*CL_TRAVELWAYS#*	*4*	*5*	*B*	-		-
25	*CL_TRAVELWAYS-ID*	*4*	*5*	*B*	-		-
29	CL_TRAVELWAYS	5	5	C	-		-

Domain for INFO tables, Scenic Classes

CL _TRAVELWAYS: The concern levels for travelways within a planning area. CL_TRAVELWAYS measures the degree of public importance attached to the scenery viewed from the lines.

Valid Values: one, two, three	**Value Description:**
	• one - high interest in scenery • two - moderate interest in scenery • three - low interest in scenery

Coverage Name: cl_use_pts

Coverage Description:	A coverage describing the spatial location of the Scenery Management System Concern Levels depicting up to three levels of use points.
References:	*Landscape Aesthetics – A Handbook for Scenery Management,* USDA Forest Service, Agriculture Handbook Number 701.
Spatial Data Source:	Best available source with a target source scale of 1:24k for continental U.S., Puerto Rico, and Hawaii and 1:63,360 for Alaska.
Horizontal Accuracy:	Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA
Projection:	Forest appropriate. A complete ArcInfo projection file is required.
Datum:	Forest appropriate. A complete ArcInfo projection file is required.
Units of Measure:	Forest appropriate. A complete ArcInfo projection file is required.
Feature Type:	Points
Points:	**Description:** This is a collection of recreation sites, communities, viewpoints, or other points of interest to the public. Three categories measure the degree of public importance attached to the scenery viewed from these points. This coverage is initially created by extracting appropriate features from other existing coverages, such as recreation sites, and adding unique features not found elsewhere.

INFO Attribute Tables

cl_use_pts.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*4*	*12*	*F*	*3*		-
9	*PERIMETER*	*4*	*12*	*F*	*3*		-
17	*CL_USE_PTS#*	*4*	*5*	*B*	-		-
21	*CL_USE_PTS-ID*	*4*	*5*	*B*	-		-
25	CL_USE_PTS	5	5	C	-		-

Domain for INFO tables, Scenic Classes

CL_USE_PTS: The concern levels for use points within a planning area. CL_USE_PTS measures the degree of public importance attached to the scenery viewed from the points.

Valid Values: one, two, three	**Value Description:**
	• one - high interest in scenery • two - moderate interest in scenery • three - low interest in scenery

Coverage Name: visibility

Coverage Description: A coverage describing the spatial location of the Scenery Management System Visibility depicting concern levels, distance zones, and seen area.

References: *Landscape Aesthetics – A Handbook for Scenery Management,* USDA Forest Service, Agriculture Handbook Number 701.

Spatial Data Source: Best available source with a target source scale of 1:24k for continental U.S., Puerto Rico, and Hawaii and 1:63,360 for Alaska.

Horizontal Accuracy: Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA

Projection: Forest appropriate. A complete ArcInfo projection file is required.

Datum: Forest appropriate. A complete ArcInfo projection file is required.

Units of Measure: Forest appropriate. A complete ArcInfo projection file is required.

Feature Type: Polygon

Polygon: **Description**: A polygon attributed with Bg1, Bg2, Bg3, Fg1, Fg2, Fg3, Mg1, Mg2, or Mg3

- Bg1 – Background 1
- Bg2 – Background 2
- Bg3 – Background 3
- Fg1 - Foreground 1
- Fg2 – Foreground 2
- Fg3 – Foreground 3
- Mg1 – Middleground 1
- Mg2 – Middleground 2
- Mg3 – Middleground 3

INFO Attribute Tables

visibility.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*4*	*12*	*F*	*3*		-
9	*PERIMETER*	*4*	*12*	*F*	*3*		-
17	*VISIBILITY#*	*4*	*5*	*B*	-		-
21	*VISIBILITY-ID*	*4*	*5*	*B*	-		-
25	VISIBILITY	3	3	C	-		-

Domain for INFO tables, Scenic Classes

VISIBILITY: Polygons created by combining concern levels, distance zones, and seen area.

Valid Values: Bg1, Bg2, Bg3, Fg1, Fg2, Fg3, Mg1, Mg2, Mg3

Value Description:

- Bg1 – Background 1
- Bg2 – Background 2
- Bg3 – Background 3
- Fg1 - Foreground 1
- Fg2 – Foreground 2
- Fg3 – Foreground 3
- Mg1 – Middleground 1
- Mg2 – Middleground 2
- Mg3 – Middleground 3

Coverage Name: scen_attract

Coverage Description:	A coverage describing the spatial location of the Scenery Management System Scenic Attractiveness polygons depicting what areas are classified as Distinctive, Typical, and Indistinctive.
References:	*Landscape Aesthetics – A Handbook for Scenery Management,* USDA Forest Service, Agriculture Handbook Number 701.
Spatial Data Source:	Best available source with a target source scale of 1:24k for continental U.S., Puerto Rico, and Hawaii and 1:63,360 for Alaska.
Horizontal Accuracy:	Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA
Projection:	Forest appropriate. A complete ArcInfo projection file is required.
Datum:	Forest appropriate. A complete ArcInfo projection file is required.
Units of Measure:	Forest appropriate. A complete ArcInfo projection file is required.
Feature Type:	Polygon
Polygon:	**Description**: A polygon attributed with A, B, or C depending on the classification of that area. • A = Distinctive • B = Typical • C = Indistinctive

INFO Attribute Tables

scen_attract.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*4*	*12*	*F*	*3*		-
9	*PERIMETER*	*4*	*12*	*F*	*3*		-
17	*SCEN_ATTRACT#*	*4*	*5*	*B*	-		-
21	*SCEN_ATTRACT-ID*	*4*	*5*	*B*	-		-
25	SCEN_ATTRACT	1	1	C	-		-

Domain for INFO tables, Scenic Classes

SCEN_ATTRACT: Scenic Attractiveness is the scenic importance of a landscape based on human perceptions of its intrinsic beauty, classified according to three values.

Valid Values: A, B, or C	**Value Description:**
	• A = Distinctive • B = Typical • C = Indistinctive

Coverage Name: scen_classes

Coverage Description:	A coverage describing the spatial location of the Scenery Management System Scenic Classes polygons depicting scenic classes.
References:	*Landscape Aesthetics – A Handbook for Scenery Management,* USDA Forest Service, Agriculture Handbook Number 701.
Spatial Data Source:	Best available source with a target source scale of 1:24k for continental U.S., Puerto Rico, and Hawaii and 1:63,360 for Alaska.
Horizontal Accuracy:	Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA
Projection:	Forest appropriate. A complete ArcInfo projection file is required.
Datum:	Forest appropriate. A complete ArcInfo projection file is required.
Units of Measure:	Forest appropriate. A complete ArcInfo projection file is required.
Feature Type:	Polygon
Polygon:	**Description**: A polygon attributed with 1, 2, 3, 4, 5, 6, 7, ss1, ss2, or ss3.

INFO Attribute Tables

scen_classes.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*4*	*12*	*F*	*3*		-
9	*PERIMETER*	*4*	*12*	*F*	*3*		-
17	*SCEN_CLASSES#*	*4*	*5*	*B*	-		-
21	*SCEN_CLASSES-ID*	*4*	*5*	*B*	-		-
25	SCEN_CLASSES	3	3	C	-		-

Domain for INFO tables, Scenic Classes	
SCEN_CLASSES: Scenic importance within a landscape.	
Valid Values: 1, 2, 3, 4, 5, 6, 7, ss1, ss2, or ss3.	**Value Description:** The value given to each polygon is based on a matrix in the SMS Handbook *(page 4-16)* and includes the values of concern levels, distance zones, seen area, and scenic attractiveness.

Layer: Existing Scenic Integrity

The existing scenic integrity layer contains the following coverages:

- ex_scen_integ

Coverage Name: ex_scen_integ

Coverage Description: A coverage describing the spatial location of the Scenery Management System Existing Scenic Integrity polygons classifying Existing Scenic Integrity.

References: Landscape Aesthetics – A Handbook for Scenery Management, USDA Forest Service, Agriculture Handbook Number 701.

Spatial Data Source: Best available source with a target source scale of 1:24k for continental U.S., Puerto Rico, and Hawaii and 1:63,360 for Alaska.

Horizontal Accuracy: Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA

Projection: Forest appropriate. A complete ArcInfo projection file is required.

Datum: Forest appropriate. A complete ArcInfo projection file is required.

Units of Measure: Forest appropriate. A complete ArcInfo projection file is required.

Feature Type: Polygon

Polygon: **Description**: A polygon attributed with VH, H, M, L, VL, or UL

- VH – Very High
- H – High
- M – Moderate
- L – Low
- VL – Very Low
- UL – Unacceptably Low

INFO Attribute Tables

ex_scen_integ.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*4*	*12*	*F*	*3*		-
9	*PERIMETER*	*4*	*12*	*F*	*3*		-
17	*EX_SCEN_INTEG#*	*4*	*5*	*B*	-		-
21	*EX_SCEN_INTEG-ID*	*4*	*5*	*B*	-		-
25	EX_SCEN_INTEG	2	2	C	-		-

Domain for INFO tables, Existing Scenic Integrity

EX_SCEN_INTEG: A measure of the existing scenic integrity of a landscape; i.e., its current level of human alteration.

Valid Values: VH, H, M, L, VL, or UL	**Value Description:**
	• VH – Very High • H – High • M – Moderate • L – Low • VL – Very Low • UL – Unacceptably Low

Layer: Scenic Integrity Objectives

The scenic integrity objectives layer contains the following coverages:

- Scen_integ_obj

Coverage Name: scen_integ_ob

Coverage Description: A coverage describing the spatial location of the Scenery Management System Scenic Integrity Objectives polygons depicting LRMP Scenic Integrity Objectives.

References: *Landscape Aesthetics – A Handbook for Scenery Management,* USDA Forest Service, Agriculture Handbook Number 701.

Spatial Data Source: Best available source with a target source scale of 1:24k for continental U.S., Puerto Rico, and Hawaii and 1:63,360 for Alaska.

Horizontal Accuracy: Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA

Projection: Forest appropriate. A complete ArcInfo projection file is required.

Datum: Forest appropriate. A complete ArcInfo projection file is required.

Units of Measure: Forest appropriate. A complete ArcInfo projection file is required.

Feature Type: Polygon

Polygon: **Description**: A polygon attributed with VH, H, M, L, or VL

- VH – Very High
- H – High
- M – Moderate
- L – Low
- VL – Very Low

INFO Attribute Tables

scen_integ_ob.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED
1	*AREA*	*4*	*12*	*F*	*3*		-
9	*PERIMETER*	*4*	*12*	*F*	*3*		-
17	*SCEN_INTEG_OB#*	*4*	*5*	*B*	-		-
21	*SCEN_INTEG_OB-ID*	*4*	*5*	*B*	-		-
25	SCEN_INTEG_OB	2	2	C	-		-

Domain for INFO tables, Scenic Integrity Objectives	
SCEN_INTEG_OB: Scenic Integrity Objectives are the final LRMP management allocation of scenic integrity levels.	
Valid Values: VH, H, M, L, or VL	**Value Description:** • VH – Very High • H – High • M – Moderate • L – Low • VL – Very Low

Topography

Topography includes the following layer:

- Elevation

Layer: Elevation

The Elevation layer contains the following grid:

- elevation

Grid Name: elevation

Grid Description: An ArcInfo grid dataset. Each grid cell contains a value representing the average elevation above datum of the corresponding land area for that grid cell. The grid may be further processed to derive other raster or vector datasets indicating such three-dimensional surface characteristics as volume, slope, aspect, and visibility.

References: National Mapping Program Technical Instructions, Part 1 General, Part 2 Specifications; Standards for Digital Elevation Models. United States Department of the Interior, U.S. Geological Survey.

http://mapping.usgs.gov/standards

http://fsweb.gsc.wo.fs.fed.us/

Spatial Data Source: For the continental U.S., Hawaii, and Puerto Rico, the 30-meter Digital Elevation Model (DEM) files produced by the U.S. Geological Survey (USGS) and the Forest Service Geospatial Service and Technology Center (GSTC) from 1:24000 scale source contours. If available, 10-meter DEM files produced by USGS and GSTC from 1:24000 scale source contours and supplemental hydrographic data may be used. For Alaska, the 60 meter or 2 X 3 arc second DEM files produced by the USGS and GSTC from 1:63360 scale source contours are used.

Vertical Accuracy: The vertical (Z axis) values in Digital Elevation Models must be within one half of the contour interval of the source contours. Vertical values are based on the National Geodetic Vertical Datum of 1929 (NGVD 29) for the continental U.S. and Alaska. Mean sea level is used for Hawaii and Puerto Rico.

Projection: Forest appropriate. A complete ArcInfo projection file is required.

Datum: Forest appropriate. A complete ArcInfo projection file is required.

Units of Measure: Vertical measurements should be in meters.

Feature Type: grid

Transportation

Transportation includes the following layer:

- Roads and Trails

Layer: Roads and Trails

The Roads and Trails layer contains the following coverage:

- travel_route.

Coverage Name: travel_route

Coverage Description:	A coverage describing the spatial location of roads and trails within or in close proximity to an administrative unit. Associated National Application: INFRA Travel Routes
References:	FSH 7709.54-56 INFRA Web Page: http://pcs27.f16.r6.fs.fed.us/infra Travel Routes Data Dictionary: http://fsweb.r6.fs.fed.us/eng/travel_routes/user_board/
Spatial Data Source:	Best available source with a target source scale of 1:24k for continental U.S., Puerto Rico, and Hawaii and 1:63,360 for Alaska.
Horizontal Accuracy:	Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA
Projection:	Forest appropriate. A complete ArcInfo projection file is required.
Datum:	Forest appropriate. A complete ArcInfo projection file is required.
Units of Measure:	Forest appropriate. A complete ArcInfo projection file is required.
Feature Type:	route, arc

Route Systems:

Name: road

Description: A route system depicting all roads within or in close proximity to an administrative unit. A road is a motor vehicle travel way over 50 inches wide, unless classified and managed as a trail. A road may be classified or unclassified. Classified roads are roads within National Forest System lands planned and managed for motor vehicle access including State roads, county roads, private roads, permitted roads, and Forest Service roads. Unclassified roads are roads not intended to be a part of nor managed as a part of the forest transportation system, such as temporary roads, and unplanned, unengineered, unauthorized off-road vehicle tracks and abandoned travel ways.

Route measurements and route directions must correspond to those stored in the INFRA Oracle table RTE_BASICS.

Name: trail

Description: A route system depicting all trails within or in close proximity to an administrative unit. A trail is a linear feature constructed for the purpose of allowing the free movement of people, stock, or Off Highway Vehicles (OHV).

Route measurements and route directions must correspond to those stored in the INFRA Oracle table RTE_BASICS.

INFO Attribute Tables

travel_route.aat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*FNODE#*	*4*	*5*	*B*	-		-
5	*TNODE#*	*4*	*5*	*B*	-		-
9	*LPOLY#*	*4*	*5*	*B*	-		-
13	*RPOLY#*	*4*	*5*	*B*	-		-
17	*LENGTH*	*8*	*18*	*F*	*5*		-
21	*TRAVEL_ROUTE#*	*4*	*5*	*B*	-		-
25	*TRAVEL_ROUTE-ID*	*4*	*5*	*B*	-		-
29	RTE_NO	30	30	C	-	ROUTE_NO	Yes
59	TRL_NO	30	30	C	-	TRAIL_NO	Yes
89	SOURCE_CODE	2	2	C	-		-

travel_route.ratroad

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*ROAD#*	*4*	*5*	*B*	-		-
5	*ROAD-ID*	*4*	*5*	*B*	-		-
9	RTE_NO	30	30	C	-	ROUTE_NO	Yes
39	RTE_CN	34	34	C	-	EVENT_KEY	Yes
73	BMP	8	8	N	4		-
81	EMP	8	8	N	4		-
89	ACTION	10	10	C	-		-
99	ACTIONSTAMP	8	10	D	-		-

travel_route.rattrail

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*TRAIL#*	*4*	*5*	*B*	-		-
5	*TRAIL-ID*	*4*	*5*	*B*	-		-
9	TRL_NO	30	30	C	-	TRAIL_NO	Yes
39	RTE_CN	34	34	C	-	EVENT_KEY	Yes
73	BMP	8	8	N	4		-
81	EMP	8	8	N	4		-
89	ACTION	10	10	C	-		-
99	ACTIONSTAMP	8	10	D	-		-

Domain for INFO tables, Roads and Trails Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
ACTION: Identifies the status of the calibration of the route.	
CALIBRATED	The route is properly calibrated to the bmp/emp values in RTE_BASICS
REMEASURE	The route needs to be re-calibrated to the bmp/emp values in RTE_BASICS
MCALIBRATE	The route is properly calibrated to the bmp/emp values in RTE_BASICS and has bad mid-point calibration performed with internal calibration points at road
ACTIONSTAMP: The date that the value was placed into the ACTION item.	
BMP: Beginning measure point of the route. The value is copied from Oracle (RTE_BASICS) and used as an aid in calibration.	
EMP: Ending measure point of the route. The value is copied from Oracle (RTE_BASICS) and used as an aid in calibration.	
RTE_CN: Control number generated in Oracle to uniquely identify each route across all Forest Service units. The value is brought from Oracle and used as a unique identifier for each spatial feature. It is used to join each route to the corresponding rows in the views GC_RTE_BASICS_V, GC_ROADS_V, and GC_TRAILS_V by matching with the column RTE_CN.	
Example: 99210277	A unique code generated by Oracle.
RTE_NO: The local route number for a route. This item identifies routes within a Forest Service unit.	
Example: 7071A	A local code for this route. Corresponds to the ID column in the INFRA table RTE_BASICS and the view GC_RTE_BASICS_VW.
SOURCE_CODE: the source of the geographic position of the arc	
01	Cartographic Feature File
02	Global Positioning; 2 to 5 meter accuracy; 3D lock
03	Global Positioning; 2 to 5 meter accuracy; 2D lock
04	Global Positioning; <1 meter accuracy; survey grade
05	ReSurvey Plat
06	Compiled from aerial photograph
07	Digitized from Primary Base Series/Single Edition Quad
08	Digitized from Orthophotography
09	Automated Lands Project
20	Digitized from some other source
21	Geodetic Control Database (GCDB)
22	Other Cadastral Information
23	Another agency created the line work
24	Unknown
TRL_NO: The local identifier for the trail. The Trail number should be unique within a forest.	

Oracle Views

gc_rte_basics_v

Name	Null?	Type
RTE_CN	NOT NULL	VARCHAR2(34)
OBJ_NAME	NOT NULL	VARCHAR2(30)
ID	NOT NULL	VARCHAR2(30)
NAME		VARCHAR2(30)
BMP		NUMBER(8,4)
EMP		NUMBER(8,4)
LENGTH		NUMBER(8,4)
BEGIN_TERMINI		VARCHAR2(40)
END_TERMINI		VARCHAR2(40)
COMMENTS		VARCHAR2(320)

gc_roads_v

The linear events contained in this view are those that are mandatory WO authority linear events.

Name	Null?	Type
RTE_CN	NOT NULL	VARCHAR2(34)
ID	NOT NULL	VARCHAR2(30)
BMP	NOT NULL	NUMBER(8,4)
EMP	NOT NULL	NUMBER(8,4)
SEG_LENGTH		NUMBER(8,4)
ADMIN_ORG		VARCHAR2(40)
CONGRESSIONAL_DISTRICT		VARCHAR2(40)
COUNTY		VARCHAR2(40)
LANES		VARCGAR2(40)
MANAGING_ORG		VARCHAR2(40)
PFSR_CLASSIFICATION		VARCHAR2(40)
JURISDICTION		VARCHAR2(40)
SYSTEM		VARCHAR2(40)
ROUTE_STATUS		VARCHAR2(40)
OPER_MAINT_LEVEL		VARCHAR2(40)
OBJECTIVE_MAINT_LEVEL		VARCHAR2(40)
FUNCTIONAL_CLASS		VARCHAR2(40)
SURFACE_TYPE		VARCHAR2(40)
PRIMARY_MAINTAINER		VARCHAR2(40)

gc_trails_v

The linear events contained in this view are those that are required or are commonly needed for spatial display.

Name	Null?	Type
RTE_CN	NOT NULL	VARCHAR2(34)
ID	NOT NULL	VARCHAR2(30)
BMP	NOT NULL	NUMBER(8,4)
EMP	NOT NULL	NUMBER(8,4)
SEG_LENGTH		NUMBER(8,4)
ADMIN_ORG		VARCHAR2(40)
CONGRESSIONAL_DISTRICT		VARCHAR2(40)
JURISDICTION		VARCHAR2(40)
DESIGNED_USE		VARCHAR2(40)
MANAGED_USE		VARCHAR2(40)
MANAGING_ORG		VARCHAR2(40)
NATIONAL_DESIGNATION		VARCHAR2(40)
COUNTY		VARCHAR2(40)
TRAIL_CLASS		VARCHAR2(40)
TRAIL_STATUS		VARCHAR2(40)
TRAIL_SURFACE		VARCHAR2(40)
TRAIL_SYSTEM		VARCHAR2(40)
TRAIL_TYPE		VARCHAR2(40)
ROS_WROS		VARCHAR2(40)
MOTORIZED_PROHIBITED		VARCHAR2(40)

Domain for Oracle tables, Roads and Trails Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
ADMIN_ORG: The unit where the route segment physically resides.	
Example: 060305	Format is RRFFDD RR is the 2-digit code for the region, FF is the 2-digit code for the Forest and DD is the 2-digit code for the District
BMP: The beginning milepost for this route or event.	
Example: 1.22	The route or event begins at milepost 1.22
CONGRESSIONAL_DISTRICT: The congressional district where the route segment physically resides. This is a spatial attribute and should be generated through a GIS coverage.	
Example: 10.53	The route or event begins at milepost 10.53
COUNTY: State and County/Borough/Parish/Township in which the route segment physically resides. It is formatted with the two digit postal code of the state then '-' followed by the county name (SS-COUNTY).	
CO – JEFFERSON OR - JEFFERSON	Jefferson County, Colorado Jefferson County, Oregon
DESIGNED_USE: The use that controls the desired geometric design of the trail.	
ATV – ALL TERRAIN VEHICLE	All Terrain Vehicle
BIKE – BICYCLE	Bicycle, Mountain or Touring Bike
HIKE – HIKER/PEDESTRIAN	Hiker/Pedestrian traffic
LIVESTOCK	Livestock including cattle, sheep, goats, etc.
MTRCYCL – MOTORCYCLE	Motorcycle
PACK – PACK AND SADDLE	Pack and Saddle including horses, mules, donkeys, lamas
SNOMO – SNOWMOBILE	Snowmobile
SNOSHU – SNOWSHOE	Snow shoeing
WCRAFT – WATERCRAFT	Watercraft – motorized and non-motorized
WCRAFT (MTR) – MTR WATERCRAFT	Motorized Watercraft
WCRAFT (NMTR) – NMTR WATERCRAFT	Non-motorized Watercraft
XSKI – CROSS COUNTRY SKI	Cross Country Skiing
EMP: The ending milepost for this route or event.	
Example: 10.53	The route or event ends at milepost 10.53

Domain for Oracle tables, Roads and Trails Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
FUNCTIONAL_CLASS: The way a road services land and resource management needs and the character of service it provides.	
A – ARTERIAL	Provides service to large land areas and usually connects with other arterial roads or public highways.
C – COLLECTOR	Provides service to smaller land areas than an arterial road. It usually connects forest arterial roads to local forest roads or terminal facilities.
L – LOCAL	Connects terminal facilities with forest collector or arterial roads or public highways. Usually local roads are single - purpose transportation facilities.
ID: The official identifier of the route. EM-7100-15 Sign and Poster Guidelines for the Forest Service, Chapter 11.6 Guide Signs contains USFS policy on route markers.	
Example: 2801073	Extensive set of business rules exist within the Travel Routes Data Dictionary
JURISDICTION: The legal right to control or regulate use of a transportation facility. Jurisdiction requires authority but not necessarily ownership. The authority to construct or maintain a road or trail may be derived from a fee title, an easement, an agreement, or some other similar method.	
BIA - BUREAU OF INDIAN AFFAIRS	USDI Bureau of Indian Affairs
BLM - BUREAU OF LAND MANAGEMENT	USDI Bureau of Land Management
BOR - BUREAU OF RECLAMATION	USDI Bureau of Reclamation
C - COUNTY, PARISH, BOROUGH	County, Parish or Borough
COE - CORPS OF ENGINEERS	COE - Corps of Engineers
DOD - DEFENSE DEPARTMENT	U.S. Defense Department
DOE - DEPARTMENT OF ENERGY	U.S. Department of Energy
FAA - FEDERAL AVIATION ADMINISTRATION	USDOT Federal Aviation Administration
FS - FOREST SERVICE	USDA Forest Service
FWS - FISH AND WILDLIFE SERVICE	USDI Fish and Wildlife Service
L - LOCAL	Town, Township, Municipal Agency (city, or other local civil government)
NPS - NATIONAL PARK SERVICE	USDI National Park Service
OF - OTHER FEDERAL AGENCY	Other Federal Agencies
OFS – OTHER FOREST SERVICE	Adjacent USDA Forest Service unit.
P - PRIVATE	Private (profit & not for profit)
S - STATE	State Agency
SH – STATE HIGHWAY	State Highway Department
SLR – STATE LANDS ROAD	State lands organizations (Department of Natural Resources)
UNK – UNKNOWN	Needs to be researched and resolved

Domain for Oracle tables, Roads and Trails Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
LANES: The number of lanes the travel way has.	
1 – ONE LANE 2 – TWO LANES 3 – THREE LANES 4 – FOUR LANES	
LENGTH: The length of the entire route. It is calculated as the emp – bmp from the RTE_BASICS table.	
Example: 9.31	This route or event is 9.31 miles long.
MANAGED_USE: Actively managed/appropriate use(s) considering the design and management of the trail. Note: there may be more than one managed use type on a segment of trail.	
ATV – ALL TERRAIN VEHICLE	All Terrain Vehicle
BIKE – BICYCLE	Bicycle, Mountain or Touring Bike
HIKE – HIKER/PEDESTRIAN	Hiker/Pedestrian traffic
LIVESTOCK	Livestock including cattle, sheep, goats, etc.
MTRCYCL – MOTORCYCLE	Motorcycle
PACK – PACK/SADDLE	Pack and Saddle including horses, mules, donkeys, llamas
SNOMO – SNOWMOBILE	Snowmobile
SNOWSHU – SNOW SHOE	Snow shoeing
WCRAFT – WATERCRAFT	Watercraft – motorized and non-motorized
WCRAFT (MTR) – MTR WATERCRAFT	Motorized Watercraft
WCRAFT (NMTR) – NMTR WATERCRAFT	Non-motorized Watercraft
XSKI – CROSS COUNTRY SKI	Cross Country Skiing
MANAGING_ORG: The code of the organization that is responsible for management of the route segment. Management means the administrative unit that has the responsibility for road management (regulating traffic, signing, scheduling maintenance, issuing road use permits, etc.)	
Example: 060305	Format is RRFFDD RR is the 2 digit code for the Region, FF is the 2 digit code for the Forest and DD is the 2 digit code for the District
MOTORIZED_PROHIBITED: Recorded only on trails where a yearlong prohibition to motorized travel exists on the trail segment.	
YES	Motorized travel is prohibited yearlong along the trail.
NAME: Common name of the route.	
Example: Hungry Ridge Road	Values are established on each unit.

Domain for Oracle tables, Roads and Trails Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
NATIONAL_DESIGNATION: The type of national designation given to a trail.	
NHT – NATIONAL HISTORIC TRAIL	Ex. NHT – Nez Perce Trail
NST – NATIONAL SCENIC TRAIL	Ex. NST – Pacific Crest Trail
NRT – NATIONAL RECREATION TRAIL	Ex. NRT – Locally identified trails
NMT – NATIONAL MILLENIUM TRAIL	Ex. NMT – American Discovery Trail
NLT – NATIONAL LEGACY TRAIL	Any designated trail (one per state)
OBJ_NAME: The name of the object. Used to differentiate between objects (ROAD or TRAIL) of the same class.	
ROAD	A motor vehicle travel way over 50 inches, unless classified and managed as a trail (36 CFR 212.1)
TRAIL	A linear feature constructed for the purpose of allowing the free movement of people, stock, or OHV's.
OBJECTIVE_MAINT_LEVEL: The maintenance level to be assigned at a future date considering future road management objectives, traffic needs, budget constraints, and environmental concerns.	
1 - BASIC CUSTODIAL CARE (CLOSED)	Assigned to intermittent service roads when they are closed to vehicular traffic.
2 - HIGH CLEARANCE VEHICLES	Assigned to roads operated for use by high clearance vehicles.
3 - SUITABLE FOR PASSENGER CARS	Assigned to roads operated and maintained for travel by a prudent driver in a standard passenger car.
4 - MODERATE DEGREE OF USER COMFORT	Assigned to roads that provide a moderate degree of user comfort and convenience at moderate travel speeds.
5 - HIGH DEGREE OF USER COMFORT	Assigned to roads that provide a high degree of user comfort and convenience.
C – CONVERT USE	Convert use of the facility to another use such as a trail.
D - DECOMMISSION	Assigned to roads that have been or are to be decommissioned.
OPER_MAINT_LEVEL: The maintenance level currently assigned to the road considering today's needs, road condition, budget constraints and environmental concerns; in other words, it defines the level to which the road is currently being maintained.	
1 - BASIC CUSTODIAL CARE (CLOSED)	Assigned to intermittent service roads during the time they are closed to vehicular traffic.
2 - HIGH CLEARANCE VEHICLES	Assigned to roads operated for use by high clearance vehicles.
3 - SUITABLE FOR PASSENGER CARS	Assigned to roads operated and maintained for travel by a prudent driver in a standard passenger car.
4 - MODERATE DEGREE OF USER COMFORT	Assigned to roads that provide a moderate degree of user comfort and convenience at moderate travel speeds.
5 - HIGH DEGREE OF USER COMFORT	Assigned to roads that provide a high degree of user comfort and convenience.

Domain for Oracle tables, Roads and Trails Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
PFSR_CLASSIFICATION: A Public Forest Service Road (PFSR) is a designated public road under Forest Service jurisdiction that meets the definition of 23 U.S.C. Section 101. The PFSR classification indicates the status of PFSR designation.	
DSG – DESIGNATED PFSR	Identification and inclusion in a network of those FS roads meeting the criteria of a PFSR and recorded officially in the Forest Service Infra database (PFSR CLASSIFICATION). Coordination and concurrence with local transportation agencies and FHWA - Federal Lands Highway Division has occurred.
POT – POTENTIAL PFSR	A road proposed by the Forest Service as a potential PFSR after determining that the facility meets the criteria as a PFSR. Coordination and concurrence with local transportation agencies and FHWA - Federal Lands Highway Division has not occurred.
PRIMARY_MAINTAINER: The agency or party having primary (largest share) financial responsibility for maintenance .	
BIA - BUREAU OF INDIAN AFFAIRS	USDI Bureau of Indian Affairs
BLM - BUREAU OF LAND MANAGEMENT	USDI Bureau of Land Management
BOR - BUREAU OF RECLAMATION	USDI Bureau of Reclamation
C - COUNTY, PARISH, BOROUGH	County, Parish, or Borough
CO - COOPERATOR	Cooperator (industrial cost share)
COE - CORPS OF ENGINEERS	Corps of Engineers
CU - COMMERCIAL USER	Commercial user
DOD - DEFENSE DEPARTMENT	US Defense Department
DOE - DEPARTMENT OF ENERGY	US Department of Energy
FAA - FEDERAL AVIATION ADMINISTRATION	USDOT Federal Aviation Administration
FS - FOREST SERVICE	USDA Forest Service
FWS - FISH AND WILDLIFE SERVICE	USDI Fish and Wildlife Service
L - LOCAL	Town, Township, Municipal Agency (City or other local civil government)
NPS - NATIONAL PARK SERVICE	USDI National Park Service
OF - OTHER FEDERAL AGENCY	Other Federal Agencies
OH - OTHER LOCAL HIGHWAY	Other Local Highway
P - PRIVATE	Private (profit & not for profit)
S - STATE	State Agency
SH – STATE HIGHWAY	State Highway Department
SLR – STATE LANDS ROAD	State lands organizations (Department of Natural Resources)
UNK – UNKOWN	Not known and needs to be resolved.

Domain for Oracle tables, Roads and Trails Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
ROS_WROS: The Recreation Opportunity Spectrum (ROS) Class through which the trail segment passes.	
P – PRIMITIVE	No facilities for user comfort. Rustic and rudimentary.
R – RURAL	Few facilities designed primarily for user comfort and convenience.
RM – ROADED MODIFIED	Roaded modified
RN – ROADED NATURAL	Rustic facilities providing some comfort for the user as well as site protection.
SPM – SEMIPRIMITIVE MOTORIZED	Rustic and rudimentary facilities primarily for site protection.
SPNM – SEMIPRIMITIVE NON-MOTORIZED	Rustic and rudimentary facilities primarily for site protection.
U – URBAN	Facilities mostly designed for user comfort and convenience.
RTE_CN: Control number generated in Oracle to uniquely identify each route across all Forest Service units. It is used to link the spatial data to the Oracle database. It links to RTE_CN in the route attribute tables.	
Example: 99210277	A unique code generated by ORACLE.
ROUTE_STATUS: Current physical state of being of the route segment.	
EX - EXISTING	A route that physically exists.
DE - DECOMMISSIONED	A route that was no longer needed and has been removed from service.
PL – PLANNED	Planned route identified in a complete NEPA document with a Record of Decision.
CV - CONVERTED	A route that was no longer needed and has been converted to another use.
SEG_LENGTH: The length of a segment of road or trail that is defined by a unique set of linear events.	
Example: 2.262	The event is 2.262 miles long.

Domain for Oracle tables, Roads and Trails Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
SURFACE_TYPE: The wearing course; usually designed to resist skidding, traffic abrasion, and the disintegrating effects of weather.	
AC - ASPHALT	Asphaltic Concrete
AGG - CRUSHED AGGREGATE OR GRAVEL	Crushed or screened graded material.
BST - BITUMINOUS SURFACE TREATMENT	Built up surface of asphalt emulsion and aggregate, not a dust pallative.
PCC – PORTLAND CEMENT CONCRETE	Portland Cement Concrete
CSOIL - COMPACTED SOIL	Compacted Native Material
FSOIL – FROZEN SOIL	Template has been cleared and rough shape completed but can't be used until frozen conditions exist.
IMP - IMPROVED NATIVE MATERIAL	Imported or processed material (pit run, select borrow, or admixture added to the surface soil and compacted)
NAT - NATIVE MATERIAL	No imported or processed materials
OTHER - OTHER	Other Surface Type - (specify in remarks)
P - PAVED	Unknown manufactured hard surface
SYSTEM: A network of travel ways serving a common need or purpose, managed by an entity with the authority to finance, build, operate and maintain the routes.	
C - COUNTY, PARISH, BOROUGH	County, Parish, or Borough
NFSR – NATIONAL FOREST SYSTEM ROAD	A classified forest road under the jurisdiction of the Forest Service. FSM 7705 (23 U.S.C. 101). Previously known as FDR - FOREST DEVELOPMENT ROAD
I - INTERSTATE HIGHWAY	Interstate highway
L – LOCAL	Town, Township, Municipal Agency (City or other local civil government).
NOT – NOT NEEDED	A road not needed for long-term management of National Forest Resources (FSM 7712.01 B(2), (36 CFR 212))
OF - OTHER FEDERAL	Other Federal agency (such as BLM, NPS, BIA, etc.)
OS – OTHER STATE	State roads other then those in the State Highway System.
P - PRIVATE	Private
SH - STATE HIGHWAY	State highway (primary or secondary)
TMP – TEMPORARY	Roads authorized by contract, permit, lease, other written authorization, or emergency operation not intended to be part of the forest transportation system and not necessary for long-term resource management. (36 CFR 212.1
UND – UNDETERMINED	An existing road whose purpose and need has yet to be determined.
US - US HIGHWAY OR ROUTE	US Highway

Domain for Oracle tables, Roads and Trails Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
TRAIL_CLASS: The prescribed scale of trail development. Represents the intended design and management standards of the trail.	
TC1 - PRIMITIVE/UNDEVELOPED	Primitive trail, minimum to nonexistent constructed features
TC2 - SIMPLE/MINOR DEVELOPMENT	Simple trail, minor development, constructed features for trail resource protection.
TC3 - DEVELOPED/IMPROVED	Substantial trail, structures common, designed for user convenience.
TC4 - HIGHLY DEVELOPED	High standard trail with significant structures, tread hardening possible.
TC5 - FULLY DEVELOPED	Highest standard trail, significant features and tread hardening likely.
TRAIL_STATUS: Current physical state of being of the trail segment	
DE - DECOMMISSIONED	A trail that was no longer needed and has been removed from service.
EX - EXISTING	A trail that physically exists.
PL - PLANNED	Planned trail identified by an appropriate management decision (ex: NEPA, Regional CIP list, Forest)
TRAIL_SURFACE: The predominant surface type encountered on the trail or trail segment.	
AC- ASPHALT	Asphalt
CHUNK WOOD	Shredded wood or bark
CON - CONCRETE	Concrete
IMPORTED COMPACTED MATERIAL	Imported compacted Aggregate or Clay
IMPORTED LOOSE MATERIAL	Imported un-compacted Gravel, Pea Gravel, Sand
NAT - NATIVE MATERIAL	Native surface material
OTHER	Other trail surface type (including Paver Block, Geogrid, etc.
SNOW	Snow
TRAIL_SYSTEM: The transportation network to which the trail segment belongs	
L - LOCAL GOVERNMENT TRAIL	Local Government trail, including County, City, Municipal, Parish or Borough.
NFST - NATIONAL FOREST SYSTEM TRAIL	National Forest System Trail.
OF - OTHER FEDERAL TRAIL	Other Federal Agency Trail (Ex: NPS, BLM...)
P - PRIVATE TRAIL	Private Trail
S - STATE GOVERNMENT TRAIL	Trail that is part of a State Trail system.
TRAIL_TYPE: A Trail classification that identifies the predominant foundation material upon which the trail exists.	
SNOW TRAIL	The predominant foundation of the trail is snow.
STANDARD/TERRA TRAIL	The predominant foundation of the trail is ground.
WATER TRAIL	The predominant foundation of the trail is water.

Wildlife

The Wildlife theme includes the following layers:

- Wildlife Observations
- Wildlife Surveys
- Wildlife Features

Status: *This is the release of the data dictionary for Version 1.3 of NRIS Fauna.*

Layer: Wildlife Observations

This layer describes the spatial location of wildlife observations, including federally listed and sensitive species. The Wildlife Observations layer contains the following coverages:

- wild_obs_pt
- wild_obs_pl

Coverage Name: wild_obs_pt, wild_obs_pl

Coverage Description:

The coverages contain information related to terrestrial wildlife observations. A basic observation is a detection, or evidence of an individual or group of animals of a known species, at a particular point in time and geographic location. **The coverage is automatically generated and maintained by the NRIS Fauna application**. There is currently a one to one correspondence between spatial features and Oracle records. **For ease of use the data in Oracle is automatically joined to the coverage**. The Oracle view, WILDLIFE_OBSERVATION_VW, described in this dictionary is used to populate the feature attribute table of the coverage.

References:

NRIS Fauna Module: http://www.fs.fed.us/emc/nris/fauna

Spatial Data Source:

Best available local source with a target scale of 1:24000 for continental U.S., 1:25000 for Puerto Rico, and 1:63360 for Alaska.

Horizontal Accuracy:

Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA

Projection:

Forest appropriate. A complete ArcInfo projection file is required.

Datum:

Forest appropriate. A complete ArcInfo projection file is required.

Units of Measure:

Forest appropriate. A complete ArcInfo projection file is required.

Feature Type:

point, region

INFO Attribute Tables

wild_obs_pt.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
-	*AREA*	-	-	-	-		-
-	*PERIMETER*	-	-	-	-		-
-	*WILD_OBS_PT#*	-	-	-	-		-
-	*WILD_OBS_PT-ID*	-	-	-	-		-
-	DET_SID	36	36	C	-		-
-	TARGET_TAXA	100	100	C	-		-
-	TARGET_TAXA_LVL	15	15	C	-		-
-	COMMON_NAME	100	100	C	-		-
-	SPECIES_CODE	10	10	C	-		-
-	TSN	10	10	C	-		-
-	TAXONOMIC_ORDER	50	50	C	-		-
-	TAXONOMIC_FAMILY	50	50	C	-		-
-	OBSERVATION_TIME	4	4	C	-		-
-	OBSERVATION_DATE	10	10	C	-		-
-	TIME_DATE_ACCUR	20	20	C	-		-
-	OBS_METHOD	20	20	C	-		-
-	OBSERVER_NAME	50	50	C	-		-
-	OBSERVER_QUALS	25	25	C	-		-
-	TOTAL_NUMBER	6	6	N	*0*		-
-	REPRO_STATUS	35	35	C	-		-
-	GROUP_TYPE	20	20	C	-		-
-	LOC_ACCUR_METERS	5	5	N	*0*		-
-	COMMENTS	320	320	C	-		-
-	DATA_SOURCE	25	25	C	-		-
-	PROTOCOL_NAME	100	100	C	-		-
-	LOCAL_ID	254	254	C	-		-
-	SURVEY_SID	36	36	C	-		-

wild_obs_pl.patwild_obs_pl

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
-	*AREA*	-	-	-	-		-
-	*PERIMETER*	-	-	-	-		-
-	*WILD_OBS_PL#*	-	-	-	-		-
-	*WILD_OBS_PL-ID*	-	-	-	-		-
-	*RINGS_OK*	-	-	-	-		-
-	*RINGS_NOK*	-	-	-	-		-
-	DET_SID	36	36	C	-		-
-	TARGET_TAXA	100	100	C	-		-
-	TARGET_TAXA_LVL	15	15	C	-		-
-	COMMON_NAME	100	100	C	-		-
-	SPECIES_CODE	10	10	C	-		-
-	TSN	10	10	C	-		-
-	TAXONOMIC_ORDER	50	50	C	-		-
-	TAXONOMIC_FAMILY	50	50	C	-		-
-	OBSERVATION_TIME	4	4	C	-		-
-	OBSERVATION_DATE	10	10	C	-		-
-	TIME_DATE_ACCUR	20	20	C	-		-
-	OBS_METHOD	20	20	C	-		-
-	OBSERVER_NAME	50	50	C	-		-
-	OBSERVER_QUALS	25	25	C	-		-
-	TOTAL_NUMBER	6	6	N	*0*		-
-	REPRO_STATUS	35	35	C	-		-
-	GROUP_TYPE	20	20	C	-		-
-	LOC_ACCUR_METERS	5	5	N	*0*		-
-	COMMENTS	320	320	C	-		-
-	DATA_SOURCE	25	25	C	-		-
-	PROTOCOL_NAME	100	100	C	-		-
-	LOCAL_ID	254	254	C	-		-
-	SURVEY_SID	36	36	C	-		-

Domain for INFO tables, Wildlife Observations Layer	
ITEM NAME: Description	
Valid Values	**Valid Descriptions**
COMMENTS: The comments that the observer collected during the detection, including key words/phrases. When moving from Oracle to Info, Info truncates the 2000 character field to 320.	
Example: Cave: four bats were observed entering an abandoned mine shaft.	
COMMON_NAME: The unique common name of the species.	
Example: Little Brown Bat	
DATA_SOURCE: Data is collected by the Forest Service or a non-Forest Service organization.	
Forest Service	Data is collected by the Forest Service.
Non-Forest Service	Data is not collected by the Forest Service. (e.g. State Heritage, BLM, Private Timber Companies, etc.) Describe in comments the originator of the data.
DET_SID: The unique spatial ID generated by the Fauna application, attached to detection point features and attributes during PC client data entry, prior to their being committed to the corporate dataset. This field may be used as a geospatially unique link between GIS features and their tabular attributes.	
Example: FNOBPT33.8693117.448513062000937158	
GROUP_TYPE: The description of the size and relationship of the animal group observed.	
Single	Only one animal was observed. The animal was not part of a pair or family group.
Pair	The animals observed were considered a pair due to protocol rules or professional judgment.
Family Type	The group of animals observed was a family type or part of one or more than two adults or two adults with young
Group	The group of animals observed was a congregation of singles, pairs, family groups, or a mix of types (e.g. herd, flock, swarm, etc).
Not Applicable	The group type of the animal was not relevant at the time of the observation.
Unknown	Group type could not be determined due to lack of evidence.
LOC_ACCUR_METERS: The estimated or known maximum distance the actual point could be from the GIS feature.	
Example: 100	
LOCAL_ID: Locally supplied identifier used for linking to data sources outside of Fauna	
Example: 3248fc	
OBS_METHOD: How the animal was detected.	
Aural	The animal was detected by hearing it.
Camera Set	The animal was detected by remotely triggered photography or videography.
Capture	Animal was physically examined in hand and identified via measurements and close inspection (e.g. mist netting, live trapping).
Check Station	The location and identification of the animal was determined by interview at a hunter check station.
Electronic Detection	The animal was detected by electronic device (e.g. anabat recorder, counter, etc).
Excrement	Evidence of the animal was found in the form of excrement – scat, regurgitated pellets, etc.

Domain for INFO tables, Wildlife Observations Layer	
ITEM NAME: Description	
Valid Values	**Valid Descriptions**
OBS_METHOD (continued)	
Found Dead	The animal detected was found dead.
Radio Telemetry	The animal was detected by the use of radio telemetry.
Track	Evidence of the animal was found in the form of a track (e.g. foot print, drag pattern of a body part, etc).
Visual	The animal was detected by seeing it.
Visual and Aural	The animal was detected by seeing it and hearing it.
Voucher Specimen	A specimen collected for identification in a laboratory or for submission to a taxon expert. May or may not be retained in a voucher collection.
Other	Evidence of the animal was detected by means other than those above (e.g. hair snare, track plate, antler run, etc). Describe in comments.
OBSERVER_NAME: The name of the observer.	
Example: Cathy Taylor	
OBSERVER_QUALS: The qualifications of the observer to accurately identify the correct species associated with the detection. Education and field experience generally define the level.	
Taxon Expert	A person who has extensive field and research level experience with the species detected.
Experienced	A person who has extensive field experience with the species detected.
Limited Experience	A person with limited field experience with the species detected. Capable of making identifications among similar species or subspecies, or other species.
No Experience	A person with no field experience identifying the wildlife species. Species identification made from description.
Unknown	The experience level of the observer is unknown. Species identification is made from the description.
OBSERVATION_DATE: The date the detection occurred.	
Example: 01-JAN-2002	
OBSERVATION_TIME: The time the detection occurred in 24-hour local time.	
Example: 1403	
PROTOCOL_NAME: The name of the survey protocol followed, or “Incidental Observation” if no protocol was involved.	
Example: Basic Survey (single field sample)	Parent survey protocol name, if the detection resulted from a survey.
REPRO_STATUS: The reproductive status of the animal detected, if known.	
Reproducing	The animal or group observed shows evidence of current season reproduction. Some evidence of partial reproductive failure may be present.
Non-Reproducing	The animal or group observed was capable of reproduction but did not engage in reproductive behavior.
Failed Reproduction	The animal or group observed shows evidence of reproduction that has failed - e.g. dead young, abandoned eggs, etc.
Unknown	Reproduction status cannot be determined.
Not Applicable	The animal or group was observed outside of its reproductive season.

Domain for INFO tables, Wildlife Observations Layer	
ITEM NAME: Description	
Valid Values	**Valid Descriptions**
SPECIES_CODE: The unique code assigned to a species (e.g. the American Ornithological Union codes for birds).	
Example: MYLU	This field contains the nationally stewarded code, if available.
SURVEY_SID: The unique foreign key link to the survey feature, if present.	
Example: FNOBPT33.8693117.448513062000937158	The logical link between detection and parent survey, if the detection resulted from a survey.
TARGET_TAXA: The scientific name of the species or taxonomic group for the detection.	
Example: Myotis lucifigus	
TARGET_TAXA_LVL: Target Species TAXA for the Detection.	
Example: Species	
TAXONOMIC_FAMILY: The common name for the taxonomic family to which the species belongs.	
Example: Vespertilionid Bats	
TAXONOMIC_ORDER: The common name for the taxonomic order to which the species belongs.	
Example: Bats	
TIME_DATE_ACCUR: The precision of the time and date measurements.	
Exact	The time and date are exact to the minute for the detection.
Hour	Only the exact hour, day, month, and year is known.
Day	Only the exact day, month, and year is known.
Month	Only the exact month and year is known.
Year	Only the exact year is known.
Previous Year	Only the previous year is known.
TOTAL_NUMBER: The number of individuals with which the detection is associated.	
Example: 4	
TSN: The unique ITIS (USGS Integrated Taxonomic Information System) taxonomic serial number that is assigned to each species' scientific name.	
Example: 16542	

Oracle Views (See Domain for INFO tables for items descriptions.)

wildlife_observation_vw

NAME	Null?	Type
DET_SID	Not Null	Varchar2(36)
TARGET_TAXA	Not Null	Varchar2(100)
TARGET_TAXA_LVL	Not Null	Varchar2(15)
COMMON_NAME	Not Null	Varchar2(100)
SPECIES_CODE	Null	Varchar2(10)
TSN	Null	Varchar2(10)
TAXONOMIC_ORDER	Not Null	Varchar2(50)
TAXONOMIC_FAMILY	Not Null	Varchar2(50)
OBSERVATION_TIME	Not Null	Varchar2(4)
OBSERVATION_DATE	Not Null	Varchar2(10)
TIME_DATE_ACCUR	Not Null	Varchar2(20)
OBS_METHOD	Not Null	Varchar2(20)
OBSERVER_NAME	Not Null	Varchar2(50)
OBSERVER_QUALS	Not Null	Varchar2(25)
TOTAL_NUMBER	Not Null	Number(6,0)
REPRO_STATUS	Not Null	Varchar2(35)
GROUP_TYPE	Not Null	Varchar2(20)
LOC_ACCUR_METERS	Not Null	Number(5,0)
COMMENTS	Null	Varchar2(2000)
DATA_SOURCE	Not Null	Varchar2(25)
PROTOCOL_NAME	Not Null	Varchar2(100)
LOCAL_ID	Null	Varchar2(254)
SURVEY_SID	Null	Varchar2(36)

Layer: Wildlife Surveys

This layer describes the spatial location of wildlife surveys. The Wildlife Surveys layer contains the following coverages:

- wild_survs_pl
- wild_survs_pt

Coverage Names: wild_survs_pl, wild_survs_pt

Coverage Description:

The coverages in this layer display terrestrial wildlife survey points and polygons. **Resource attributes for the two coverages are identical.** A **wildlife survey** is a completed search for an animal or group of animals carried out at a location and over a period of time. It may employ a national protocol or methodology. A survey point relates to something with no area. Examples are call and camera points. Examples of a survey polygon are a timber stand or meadow. **The coverage is automatically generated and maintained by the NRIS Fauna application**. There is currently a one to one correspondence between spatial features and Oracle records. **For ease of use the data in Oracle is automatically joined to the coverage**. The Oracle view, WILDLIFE_SURVEYS_VW, described in this dictionary is used to populate the feature attribute tables of the coverages.

References:

NRIS Fauna Module: http://www.fs.fed.us/emc/nris/fauna

Spatial Data Source:

Best available local source with a target scale of 1:24000 for continental U.S., 1:25000 for Puerto Rico, and 1:63360 for Alaska.

Horizontal Accuracy:

Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA

Projection:

Forest appropriate. A complete ArcInfo projection file is required.

Datum:

Forest appropriate. A complete ArcInfo projection file is required.

Units of Measure:

Forest appropriate. A complete ArcInfo projection file is required.

Feature Type:

point, region

INFO Attribute Tables

wild_survs_pt.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
-	*AREA*	-	-	-	-		-
-	*PERIMETER*	-	-	-	-		-
-	*WILD_SURVS_PT#*	-	-	-	-		-
-	*WILD_SURVS_PT-ID*	-	-	-	-		-
-	SRVY_SID	36	36	C	-		-
-	PROTOCOL_NAME	100	100	C	-		-
-	SURVEY_NAME	100	100	C	-		-
-	TARGET_TAXA	100	100	C	-		-
-	TARGET_TAXA_LVL	15	15	C	-		-
-	SURVEY_RESULTS	20	20	C	-		-
-	START_DATE	10	10	C	-		-
-	START_TIME	4	4	C	-		-
-	COMPLETE_DATE	10	10	C	-		-
-	COMPLETE_TIME	4	4	C	-		-
-	TIME_DATE_ACCUR	20	20	C	-		-
-	SURVEY_STEWARD	50	50	C	-		-
-	PRIMARY_SURVEYOR	50	50	C	-		-
-	SURVEYOR_QUALS	25	25	C	-		-
-	COMMENTS	320	320	C	-		-
-	DATA_SOURCE	25	25	C	-		-
-	LOC_ACCUR_METERS	5	5	N	0		-
-	LOCAL_ID	254	254	C	-		-

wild_survs_pl.patwild_survs_pl

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
-	*AREA*	-	-	-	-		-
-	*PERIMETER*	-	-	-	-		-
-	*WILD_SURVS_PL#*	-	-	-	-		-
-	*WILD_SURVS_PL-ID*	-	-	-	-		-
-	*RING_OK*	-	-	-	-		-
-	RING_NOK	-	-	-	-		-
-	SRVY_SID	36	36	C	-		-
-	PROTOCOL_NAME	100	100	C	-		-
-	SURVEY_NAME	100	100	C	-		-
-	TARGET_TAXA	100	100	C	-		-
-	TARGET_TAXA_LVL	15	15	C	-		-
-	SURVEY_RESULTS	20	20	C	-		-
-	START_DATE	10	10	C	-		-
-	START_TIME	4	4	C	-		-
-	COMPLETE_DATE	10	10	C	-		-
-	COMPLETE_TIME	4	4	C	-		-
-	TIME_DATE_ACCUR	20	20	C	-		-
-	SURVEY_STEWARD	50	50	C	-		-
-	PRIMARY_SURVEYOR	50	50	C	-		-
-	SURVEYOR_QUALS	25	25	C	-		-
-	COMMENTS	320	320	C	-		-
-	DATA_SOURCE	25	25	C	-		-
-	LOC_ACCUR_METERS	5	5	N	0		-
-	LOCAL_ID	254	254	C	-		-

Domain for INFO tables, Wildlife Surveys Layer	
ITEM NAME:	**Description:**
COMMENTS: The comments that the observer collected during the detection, including key words/phrases. When moving from Oracle to Info, Info truncates the 2000 character field to 320.	
Example: Cave: four bats were observed entering an abandoned mine shaft.	
COMPLETE_DATE: The date the survey was completed.	
Example: 01-JAN-2002	
COMPLETE_TIME: The time the survey was completed in 24-hour local time.	
Example: 2042	
DATA_SOURCE: Data is collected by the Forest Service or a non-Forest Service organization.	
List of Values	**Description**
Forest Service	Data is collected by the Forest Service.
Non-Forest Service	Data is not collected by the Forest Service. (e.g. State Heritage, BLM, Private Timber Companies, etc.) Describe in comments the originator of the data.
LOC_ACCUR_METERS: The estimated or known maximum distance the actual point could be from the GIS feature.	
Example: 100	
LOCAL_ID: Locally supplied identifier used for linking to data sources outside of Fauna	
Example: 3248fc	
PRIMARY_SURVEYOR: The name of the primary surveyor conducting the survey.	
Example: C. Ima Birder	
PROTOCOL_NAME: The name of the survey protocol followed, from a standard list.	
Example: NRIS Bat Trap/Net Survey	
SRVY_SID: The unique spatial ID generated by the Fauna application, attached to survey polygon features and attributes during PC client data entry, prior to their being committed to the corporate dataset. This field may be used as a geospatially unique link between GIS features and their tabular attributes.	
Example: FNSVPY34.0293083.948513062000606811	
START_DATE: The date the survey was started.	
Example: 01-JAN-2002	
START_TIME: The time the survey was started in 24-hour local time.	
Example: 1630	
SURVEY_NAME: The unique name for the survey area, entered by the user	
Example: Sky High Mine Bat Survey	
SURVEY_RESULTS: Signifies if there was a detection of some evidence for a target taxon during a survey.	
List of Values	**Description**
Species Detected	There was at least one detection of the target taxon.
(NULL)	There were no detections of the target taxon.
SURVEY_STEWARD: The name of the steward of the survey data.	
Example: Ben A. Sceloporus	

Domain for INFO tables, Wildlife Surveys Layer	
ITEM NAME:	**Description:**
SURVEYOR_QUALS: The qualifications of the surveyor to conduct the survey using the specified survey protocol or methodology. Education and field experience generally define the level.	
List of Values	**Description**
Experienced	A person who has extensive field experience conducting surveys using the specified survey protocol or methodology.
Limited Experience	A person with limited field experience conducting surveys using the specified survey protocol or methodology. This person may have experience using other related survey protocols or methodologies.
No Experience	A person with no field experience conducting surveys using the specified survey protocol or methodology.
Unknown	The experience level of the surveyor is unknown.
TARGET_TAXA: The scientific name of the species or taxonomic group for which the survey was conducted.	
Example: Chiroptera	
TARGET_TAXA_LVL: Target Species TAXA for the Survey.	
Example: Order	
TIME_DATE_ACCUR: Indicates the precision of the time and date measurements.	
List of Values	**Description**
Exact	The time and date are exact to the minute for the survey
Day	Only the exact day, month, and year is known
Hour	Only the exact hour, day, month, and year is known

Oracle Views (See Domain for INFO tables for items descriptions.)

wildlife_surveys_vw

NAME	Null?	Type
SRVY_SID	Not Null	Varchar2(36)
PROTOCOL_NAME	Not Null	Varchar2(100)
SURVEY_NAME	Not Null	Varchar2(100)
TARGET_TAXA	Not Null	Varchar2(100)
TARGET_TAXA_LVL	Not Null	Varchar2(15)
SURVEY_RESULTS	Null	Varchar2(20)
START_DATE	Not Null	Varchar2(10)
START_TIME	Not Null	Varchar2(4)
COMPLETE_DATE	Not Null	Varchar2(10)
COMPLETE_TIME	Not Null	Varchar2(4)
TIME_DATE_ACCUR	Not Null	Varchar2(20)
SURVEY_STEWARD	Not Null	Varchar2(50)
PRIMARY_SURVEYOR	Not Null	Varchar2(50)
SURVEYOR_QUALS	Not Null	Varchar2(25)
COMMENTS	Null	Varchar2(2000)
DATA_SOURCE	Not Null	Varchar2(25)
LOC_ACCUR_METERS	Not Null	NUMBER(5)
LOCAL_ID	Null	Varchar2(254)

Layer: Wildlife Features

This layer describes the spatial location of wildlife features. The Wildlife Features layer contains the following coverages:

- wild_ftr_pl
- wild_ftr_pt
- wld_ftrhst_pl
- wld_ftrhst_pt

Coverage Names: wild_ftr_pl, wild_ftr_pt, wld_ftrhst_pl, wld_ftrhst_pt

Coverage Description: The coverages in this layer display terrestrial wildlife feature points and polygons. **Resource attributes for the four coverages are identical.** A wildlife feature is a mapable object that is important to terrestrial wildlife. It has locational, relational, temporal and tabular characteristics, and is typically re-evaluated (visited) over time. As a GIS point or polygon, a feature can move, change shape, change attributes, disappear and reappear. The wild_ftr coverages contain current features and the wld_ftrhst coverages contain historical features. **The coverage is automatically generated and maintained by the NRIS Fauna application**. There is currently a one to one correspondence between spatial features and Oracle records. **For ease of use the data in Oracle is automatically joined to the coverage**. The Oracle view, WILDLIFE_FEATURES_VW, described in this dictionary is used to populate the feature attribute tables of the coverages.

References: NRIS Fauna Module: http://www.fs.fed.us/emc/nris/fauna

Spatial Data Source: Best available local source with a target scale of 1:24000 for continental U.S., 1:25000 for Puerto Rico, and 1:63360 for Alaska.

Horizontal Accuracy: Targeted to "Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy, FGDC-STD-007.3-1998". NSSDA

Projection: Forest appropriate. A complete ArcInfo projection file is required.

Datum: Forest appropriate. A complete ArcInfo projection file is required.

Units of Measure: Forest appropriate. A complete ArcInfo projection file is required.

Feature Type: point, region

INFO Attribute Tables

wild_ftr_pt.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
-	*AREA*	-	-	-	-		-
-	*PERIMETER*	-	-	-	-		-
-	*WILD_FTR_PT#*	-	-	-	-		-
-	*WILD_FTR_PT-ID*	-	-	-	-		-
-	FTR_FID	36	36	C	-		-
-	FTR_SID	36	36	C	-		-
-	LOCAL_NAME	100	100	C	-		-
-	CATEGORY_TYPE	20	20	C	-		-
-	TARGET_TAXA	100	100	C	-		-
-	TARGET_TAXA_LVL	15	15	C			
-	FTR_START_DATE	10	10	C	-		-
-	FTR_START_TIME	4	4	C	-		-
-	FTR_END_DATE	10	10	C	-		-
-	FTR_END_TIME	4	4	C	-		-
-	DATA_SOURCE	25	25	C			
-	FTR_TME_DTE_ACR	20	20	C	-		-
-	ORIGINATOR	50	50	C	-		-
-	LOC_ACCUR_METERS	5	5	I	-		-
-	LOCAL_ID	254	254	C	-		-
-	REFERENCE	240	240	C	-		-
-	COMMENTS	320	320	C	-		-
-	ADM_FEATURE_TYPE	50	50	C	-		-
-	ADM_NEXT_VISIT	10	10	C	-		-
-	BIO_FEATURE_TYPE	50	50	C	-		-
-	BIO_NEXT_VISIT	10	10	C	-		-
-	BIO_ORIGIN	15	15	C	-		-
-	BIO_ORIG_METHOD	20	20	C	-		-
-	BIO_ORIG_QUALS	25	25	C	-		-
-	BIO_HISTORY	20	20	C	-		-
-	UA_FEATURE_TYPE	50	50	C	-		-
-	VST_START_DATE	10	10	C	-		-
-	VST_START_TIME	4	4	C	-		-
-	VST_COMP_DATE	10	10	C	-		-
-	VST_COMP_TIME	4	4	C	-		-
-	VST_TME_DTE_ACR	20	20	C	-		-
-	FTR_STATUS	15	15	C	-		-
-	FTR_CONDITION	15	15	C	-		-
-	FTR_USE	50	50	C	-		-

wild_ftr_pl.patwild_ftr_pl

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
-	*AREA*	-	-	-	-		-
-	*PERIMETER*	-	-	-	-		-
-	*WILD_FTR_PL#*	-	-	-	-		-
-	*WILD_FTR_PL-ID*	-	-	-	-		-
-	*RING_OK*	-	-	-	-		-
-	RING_NOK	-	-	-	-		-
-	FTR_FID	36	36	C	-		-
-	FTR_SID	36	36	C	-		-
-	LOCAL_NAME	100	100	C	-		-
-	CATEGORY_TYPE	20	20	C	-		-
-	TARGET_TAXA	100	100	C	-		-
-	TARGET_TAXA_LVL	15	15	C			
-	FTR_START_DATE	10	10	C	-		-
-	FTR_START_TIME	4	4	C	-		-
-	FTR_END_DATE	10	10	C	-		-
-	FTR_END_TIME	4	4	C	-		-
-	DATA_SOURCE	25	25	C			
-	FTR_TME_DTE_ACR	20	20	C	-		-
-	ORIGINATOR	50	50	C	-		-
-	LOC_ACCUR_METERS	5	5	I	-		-
-	LOCAL_ID	254	254	C	-		-
-	REFERENCE	240	240	C	-		-
-	COMMENTS	320	320	C	-		-
-	ADM_FEATURE_TYPE	50	50	C	-		-
-	ADM_NEXT_VISIT	10	10	C	-		-
-	BIO_FEATURE_TYPE	50	50	C	-		-
-	BIO_NEXT_VISIT	10	10	C	-		-
-	BIO_ORIGIN	15	15	C	-		-
-	BIO_ORIG_METHOD	20	20	C	-		-
-	BIO_ORIG_QUALS	25	25	C	-		-
-	BIO_HISTORY	20	20	C	-		-
-	UA_FEATURE_TYPE	50	50	C	-		-
-	VST_START_DATE	10	10	C	-		-
-	VST_START_TIME	4	4	C	-		-
-	VST_COMP_DATE	10	10	C	-		-
-	VST_COMP_TIME	4	4	C	-		-
-	VST_TME_DTE_ACR	20	20	C	-		-
-	FTR_STATUS	15	15	C	-		-
-	FTR_CONDITION	15	15	C	-		-
-	FTR_USE	50	50	C	-		-

wld_ftrhst_pt.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
-	*AREA*	-	-	-	-	-	-
-	*PERIMETER*	-	-	-	-	-	-
-	*WLD_FTRHST_PT#*	-	-	-	-	-	-
-	*WLD_FTRHST_PT-ID*	-	-	-	-	-	-
-	FTR_FID	36	36	C	-	-	-
-	FTR_SID	36	36	C	-	-	-
-	LOCAL_NAME	100	100	C	-	-	-
-	CATEGORY_TYPE	20	20	C	-	-	-
-	TARGET_TAXA	100	100	C	-	-	-
-	TARGET_TAXA_LVL	15	15	C			
-	FTR_START_DATE	10	10	C	-	-	-
-	FTR_START_TIME	4	4	C	-	-	-
-	FTR_END_DATE	10	10	C	-	-	-
-	FTR_END_TIME	4	4	C	-	-	-
-	DATA_SOURCE	25	25	C			
-	FTR_TME_DTE_ACR	20	20	C	-	-	-
-	ORIGINATOR	50	50	C	-	-	-
-	LOC_ACCUR_METERS	5	5	I	-	-	-
-	LOCAL_ID	254	254	C	-	-	-
-	REFERENCE	240	240	C	-	-	-
-	COMMENTS	320	320	C	-	-	-
-	ADM_FEATURE_TYPE	50	50	C	-	-	-
-	ADM_NEXT_VISIT	10	10	C	-	-	-
-	BIO_FEATURE_TYPE	50	50	C	-	-	-
-	BIO_NEXT_VISIT	10	10	C	-	-	-
-	BIO_ORIGIN	15	15	C	-	-	-
-	BIO_ORIG_METHOD	20	20	C	-	-	-
-	BIO_ORIG_QUALS	25	25	C	-	-	-
-	BIO_HISTORY	20	20	C	-	-	-
-	UA_FEATURE_TYPE	50	50	C	-	-	-
-	VST_START_DATE	10	10	C	-	-	-
-	VST_START_TIME	4	4	C	-	-	-
-	VST_COMP_DATE	10	10	C	-	-	-
-	VST_COMP_TIME	4	4	C	-	-	-
-	VST_TME_DTE_ACR	20	20	C	-	-	-
-	FTR_STATUS	15	15	C	-	-	-
-	FTR_CONDITION	15	15	C	-	-	-
-	FTR_USE	50	50	C	-	-	-

wld_ftrhst_pl.patftrhst_pl

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
-	*AREA*	-	-	-	-	-	-
-	*PERIMETER*	-	-	-	-	-	-
-	*FTRHST_PL#*	-	-	-	-	-	-
-	*FTRHST_PL-ID*	-	-	-	-	-	-
-	*RING_OK*	-	-	-	-	-	-
-	RING_NOK	-	-	-	-	-	-
-	FTR_FID	36	36	C	-	-	-
-	FTR_SID	36	36	C	-	-	-
-	LOCAL_NAME	100	100	C	-	-	-
-	CATEGORY_TYPE	20	20	C	-	-	-
-	TARGET_TAXA	100	100	C	-	-	-
-	TARGET_TAXA_LVL	15	15	C			
-	FTR_START_DATE	10	10	C	-	-	-
-	FTR_START_TIME	4	4	C	-	-	-
-	FTR_END_DATE	10	10	C	-	-	-
-	FTR_END_TIME	4	4	C	-	-	-
-	DATA_SOURCE	25	25	C			
-	FTR_TME_DTE_ACR	20	20	C	-	-	-
-	ORIGINATOR	50	50	C	-	-	-
-	LOC_ACCUR_METERS	5	5	I	-	-	-
-	LOCAL_ID	254	254	C	-	-	-
-	REFERENCE	240	240	C	-	-	-
-	COMMENTS	320	320	C	-	-	-
-	ADM_FEATURE_TYPE	50	50	C	-	-	-
-	ADM_NEXT_VISIT	10	10	C	-	-	-
-	BIO_FEATURE_TYPE	50	50	C	-	-	-
-	BIO_NEXT_VISIT	10	10	C	-	-	-
-	BIO_ORIGIN	15	15	C	-	-	-
-	BIO_ORIG_METHOD	20	20	C	-	-	-
-	BIO_ORIG_QUALS	25	25	C	-	-	-
-	BIO_HISTORY	20	20	C	-	-	-
-	UA_FEATURE_TYPE	50	50	C	-	-	-
-	VST_START_DATE	10	10	C	-	-	-
-	VST_START_TIME	4	4	C	-	-	-
-	VST_COMP_DTE	10	10	C	-	-	-
-	VST_COMP_TIME	4	4	C	-	-	-
-	VST_TME_DTE_ACR	20	20	C	-	-	-
-	FTR_STATUS	15	15	C	-	-	-
-	FTR_CONDITION	15	15	C	-	-	-
-	FTR_USE	50	50	C	-	-	-

Domain for INFO tables, Wildlife Features Layer	
ITEM NAME: Description	
Valid Values	**Valid Descrition**
ADM_FEATURE_TYPE: Type of administrative feature	
Survey Area	A defined area intended to search for a specific species or group of species.
Survey Point	A point defined for the purpose of collecting species or multiple species information (e.g. call points, hair snare, camera set, etc).
Management Area	An area that has specific guidelines, standards, directions or recommendations assigned to it for a species or multiple species or their habitat (e.g. recovery zones, nest zones, Forest Plan defined area).
Other	The Administrative Feature was defined by other means than listed above. Describe in comments.
ADM_NEXT_VISIT: Date of next planned visit if feature type is administrative	
Example: 12/01/2002	
BIO_FEATURE_TYPE: Type of biological feature	
Bridge	A structure spanning and providing passage over an obstacle, as a waterway
Burrow or Den	A shelter or retreat for a wild animal; a lair (e.g. bear).
Cave	An underground hollow, often having an opening in the side of a hill or cliff
Cavity	A hollow or hole used by a species for shelter.
Cliff	A high, steep, or overhanging rock face.
Log	The trunk of a fallen tree.
Mineral Lick	A known mineral concentration used by animals.
Nest	A place in which young are reared (e.g. birds, insects).
Opening or Clearing	An unobstructed passage or area of sparse vegetation adjacent to an area of denser vegetation.
Scrape or Rub	An area of ground altered by animals, usually by removing the surface material (e.g. tree, post, pole, building)
Snag	A tree or part of a tree that protrudes above the surface, generally dead.
Trail	A trail created or dominantly shaped or maintained by animal movement.
Tree	A tall, woody plant having comparatively great height and usually a single trunk, generally living.
Wallow	The depression or pit used by a species in which to rub, roll, or dust bathe.
Other	The Biological Feature was defined by other means than listed above. Describe in comments.
BIO_HISTORY: History of the Biological Feature	
New	Originated in the current biological year (relevant to the biology of the species).
Unknown	The origin date is unknown.
BIO_NEXT_VISIT: Date of next planned visit if feature type is biological	
Example: 12/01/2002	

Domain for INFO tables, Wildlife Features Layer	
ITEM NAME: Description	
Valid Values	**Valid Descrition**
BIO_ORIG_METHOD: How the Biological Feature was discovered.	
Direct	The Feature's origination was directly observed (e.g. visual, aural, physical evidence, etc).
Reported	The Feature's origination was reported.
Unknown	The method of origination for the Feature is unknown or historic.
Other	The origination method for the feature was detected by means other than those above. Describe in comments.
BIO_ORIGIN: Origin of Biological Feature (Natural, Artificial).	
Natural	The Origin for the Biological Feature is Natural.
Artificial	The Origin for the Biological Feature is Artificial.
BIO_ORIG_QUALS: The qualifications of the observer to accurately identify the feature. Education and field experience generally define the level.	
Experienced	A person who has extensive field experience and knowledge of wildlife features.
Limited Experience	A person with limited field experience and knowledge of wildlife features.
No Experience	A person with no field experience or knowledge of wildlife features.
Unknown	The experience level of the originator is unknown.
CATEGORY_TYPE: Type of Feature (Administrative, Biological, Use Area)	
Biological	Biological Features have inherent biological meaning, which is usually derived from direct observation or inferred from observed signs of wildlife use.
Administrative	Administrative Features may have no inherent biological meaning or may have implied biological meaning. They are defined purely for administrative or investigative purposes.
Use Area	Use Area Features have inherent biological meaning, although that meaning is designated and usually interpreted based upon life history information, the environment, and managerial needs and may not represent true biological use.
COMMENTS: The comments that the observer collected during the visit, including key words/phrases. When moving from Oracle to Info, Info truncates the 2000 character field to 320.	
Example:	
DATA_SOURCE: Data is collected by the Forest Service or a non-Forest Service organization.	
List of Values	**Description**
Forest Service	Data is collected by the Forest Service.
Non-Forest Service	Data is not collected by the Forest Service. (e.g. State Heritage, BLM, Private Timber Companies, etc.) Describe in comments the originator of the data.
FTR_CONDITION: Condition of the Feature at the time of the Visit (Usable, Unusable)	
List of Values	**Description**
Usable	The feature is usable.
Unusable	The feature is no longer useable.
Unknown	The condition of the feature cannot be determined.
Not Applicable	The condition of the feature is not relevant
FTR_END_DATE: The date the Feature is no longer current.	
Example: 12/01/2002	

Domain for INFO tables, Wildlife Features Layer		
ITEM NAME: Description		
Valid Values		**Valid Descrition**
FTR_END_TIME: The time the Feature is no longer current		
Example: 2042		
FTR_FID: The unique system generated identifier for the feature. This identifier persists for the life of the feature		
Example: FNA_FTR34.0293083.948513062000606811		
FTR_SID: The unique system generated identifier for the spatial object. A new FTR_SID is generated if the feature moves or changes shape. The combination of FID and SID are the primary key for the record.		
Example: FNAFTPT34.0293083.948513062000606811		
FTR_START_DATE: The date the feature started.		
Example: 01-JAN-2002		
FTR_START _TIME: The time the feature started.		
Example: 2042		
FTR_STATUS: The Status of the Feature at the time of the Visit.		
List of Values	**Feature Category**	**Description**
Active	ADM	Administrative Feature is actively being managed.
Inactive	ADM	Administrative Feature exists but is not currently actively managed.
Closed	ADM	Administrative Feature no longer exists.
Retired	ADM	The Administrative Feature has been retired and only appears in the Historic Wildlife Features layer.
Unknown	ADM	It cannot be determined if the Administrative Feature exists.
Not Applicable	ADM	The status of the Administrative Feature is not relevant.
Active	BIO	Biological Feature is actively being managed or being used by species.
Inactive	BIO	Biological Feature exists but is not currently actively managed or not being used by species.
Non-Extant	BIO	Biological Feature no longer exists or has been destroyed or lost.
Not Found	BIO	Biological Feature could not be found or located.
Retired	BIO	The Biological Feature has been retired and only appears in the Historic Wildlife Features layer.
Not Applicable	BIO	The status of the Biological Feature is not relevant.
Unknown	BIO	It cannot be determined if the Biological Feature exists.
In use	USE	Use Area Feature is in use.
Not in use	USE	Use Area Feature is not in use.
Non-Extant	USE	Use Area Feature no longer exists or has been destroyed or lost.
Retired	USE	The Use Area Feature has been retired and only appears in the Historic Wildlife Features layer.
Not Applicable	USE	The status of the Use Area Feature is not relevant.
Unknown	USE	It cannot be determined if the Use Area Feature exists.
FTR_TME_DTE_ACR: Indicates the precision of the time and date measurements for starting and ending of the feature.		
Exact		The time and date are exact to the minute for the visit
Day		Only the exact day, month, and year is known
Hour		Only the exact hour, day, month, and year is known

Domain for INFO tables, Wildlife Features Layer	
ITEM NAME: Description	
Valid Values	**Valid Descrition**
FTR_USE: The Biological Feature Use Type at the time of the Visit.	
Basking or Loafing	Lying in the sun or open air.
Hibernating	Shelter for a hibernating animal (e.g. bears, bats, etc).
Hive	Housing bees or other invertebrates.
Marking	Marking by an animal to leave a territorial or behavioral scent to influence other animals (e.g. scrapes, rubbings, clawing, etc).
Migratory	Used for migrating species.
Perch or roost	Used by an animal for resting or sitting (e.g. tree, cliff, branch, etc).
Plucking	Used as a perch during prey handling (e.g. tree, branch, log, etc).
Reproducing	Used by an animal for nesting, courtship, birthing, hatching, and brooding young.
Seasonal	Used by a species during a particular season.
Shelter	Used by an animal as a refuge.
Other	The Biological Feature use was defined by other means than listed above. Describe in comments.
Unknown	The Biological Feature use is unknown.
LOCAL_ID: Locally supplied identifier used for linking to data sources outside of Fauna	
Example: 1527	
LOCAL_NAME: Local name of the Feature.	
Example: Duck Box 2517	
LOC_ACCUR_METERS: The estimated or known maximum distance in meters the actual point could be from the GIS feature.	
Example: 50	
ORIGINATOR: Name of the person who initially discovered or identified the feature.	
Example: John Q. Biologist	
REFERENCE: Reference for Feature	
Example: 12/01/2002	
TARGET_TAXA: The scientific name of the species or taxonomic group for which the survey was conducted.	
Example: Chiroptera	
TARGET_TAXA_LVL: Target Species TAXA for the Feature; i.e. Family, Genus, etc.	
Example: Order	
UA_FEATURE_TYPE: The Biological Feature Use Type at the time of the Visit	
Breeding	An area used primarily to provide habitat for reproduction.
Calving or Fawning	An area used for calving or fawning.
Critical Habitat (FWS)	Legally defined area. Designated under the Endangered Species Act.
Foraging	An area used specifically or primarily for feeding.
Individual Territory	The area known or assumed to be used by an individual or reproductive unit to meet its habitat needs for all or a critical portion of its life.
Migration Route	An area used by an animal while moving between seasonal use areas. Usually used on a seasonal basis and for short duration.
Population or Herd Boundary	The area that bounds the expected or known distribution of individuals that comprise the population or herd. Usually interpreted and not a definitive boundary unless fenced or physically constrained (e.g. by rivers or other impassible features).
Potential Habitat	Habitat that has the potential to support the species based upon a defined set of habitat attributes.

Domain for INFO tables, Wildlife Features Layer	
ITEM NAME: Description	
Valid Values	**Valid Descrition**
UA_FEATURE_TYPE (continued)	
Security	An area used to shelter or hide from weather or predators.
Summer Range	The area used primarily to provide habitat during the summer season. Usually only defined for species that have distinct areas of seasonal occupancy.
Winter Range	The area used primarily to provide habitat during the winter season. Usually only defined for species that have distinct areas of seasonal occupancy.
Yearlong Range	The area used primarily to provide habitat during the entire year.
Other	The Use Area Feature was defined by other means than listed above. Describe in comments.
VST_COMP_DATE: The date the latest visit to the feature was completed.	
Example: 12/01/2002	
VST_COMP_TIME: The time the latest visit to the feature was completed.	
Example: 2042	
VST_START_DATE: The date the latest visit to the feature started.	
Example: 01-JAN-2002	
VST_START _TIME: The time the latest visit to the feature started.	
Example: 2042	
VST_TME_DTE_ACR: Indicates the precision of the time and date measurements for starting and ending of the latest visit to the feature.	
Exact	The time and date are exact to the minute for the visit
Day	Only the exact day, month, and year is known
Hour	Only the exact hour, day, month, and year is known

Oracle Views - See 'Domain for INFO tables' for item descriptions.

wildlife_features_vw

NAME	Null?	Type
FTR_FID	Not Null	Varchar2(36)
FTR_SID	Not Null	Varchar2(36)
LOCAL_NAME	Null	Varchar2(100)
CATEGORY_TYPE	Not Null	Varchar2(20)
TARGET_TAXA	Not Null	Varchar2(100)
TARGET_TAXA_LVL	Not Null	Varchar2(15)
FTR_START_DATE	Not Null	Varchar2(10)
FTR_START_TIME	Not Null	Varchar2(4)
FTR_END_DATE	Null	Varchar2(10)
FTR_END_TIME	Null	Varchar2(4)
DATA_SOURCE	Not Null	Varchar2(25)
FTR_TME_DTE_ACR	Not Null	Varchar2(20)
ORIGINATOR	Not Null	Varchar2(50)
LOC_ACCUR_METERS	Not Null	Varchar2(5)
LOCAL_ID	Null	Number(254)
REFERENCE	Null	Varchar2(240)
COMMENTS	Null	Varchar2(2000)
ADM_FEATURE_TYPE	Null	Varchar2(50)
ADM_NEXT_VISIT	Null	Varchar2(10)
BIO_FEATURE_TYPE	Null	Varchar2(50)
BIO_NEXT_VISIT	Null	Varchar2(10)
BIO_ORIGIN	Null	Varchar2(15)
BIO_ORIG_METHOD	Null	Varchar2(20)
BIO_ORIG_QUALS	Null	Varchar2(25)
BIO_HISTORY	Null	Varchar2(20)
UA_FEATURE_TYPE	Null	Varchar2(50)
VST_START_DATE	Null	Varchar2(10)
VST_START_TIME	Null	Varchar2(4)
VST_COMP_DATE	Null	Varchar2(10)
VST_COMP_TIME	Null	Varchar2(4)
VST_TME_DTE_ACR	Null	Varchar2(20)
FTR_STATUS	Not Null	Varchar2(15)
FTR_CONDITION	Null	Varchar2(15)
FTR_USE	Null	Varchar2(50)

Water

Water includes the following layers:

- Water
- Watershed

Layer: Water

The Water layer contains the following coverages:

- nhd
- nhdpt

Coverage Names: nhd, nhdpt

Coverage Descriptions:

These two coverages describe the spatial location of stream, waterbody, and water point features within a subbasin (4th level code hydrologic unit) located within or partially within a Forest Service administrative unit. Multiple subbasins may be tiled together for a Forest or administrative unit but file size can be considerable. The individual coverages are stored in workspaces, one workspace for each subbasin. Workspaces are named with the subbasin number. As an example, the following directory/workspace structure can be implemented: (Normal print = system directory, *Italic print = workspace directory,* Underline = coverage directory).

Fsfiles
Ref
Library
Gis
Water
Watershed
INFO
17010201
NHD
NHDPT
INFO
17010202
NHD
NHDPT
INFO

NHD: A stream is defined as a watercourse carrying overland flow having a defined channel and evidence of periodic scour and fill. This theme consists of *routes* that make up a linear surface water drainage network. The routes represent National Hydrography Dataset features, such as stream/rivers, canal/ditches, and pipelines, portrayed as single lines; or the artificial paths representing network flow through open waters, such as lake/ponds, swamp/marshes, wide stream/rivers, or playas.

A waterbody is a naturally occurring or constructed hydrographic feature delineated using areas. This theme contains *regions* representing areal NHD hydrographic waterbody features. Many NHD area features in this theme will contain one or more corresponding lines in the

surface water drainage network, coded as artificial paths.

NHDPT: A water point is a naturally occurring or constructed hydrographic landmark. This theme contains *points* usually representing non-stream NHD hydrographic features. For example, a well is a single NHD point feature. The NHDPT coverage has node topology.

Associated National Application: NRIS Water Application

References:

U.S. Geological Survey (USGS) – National Hydrography Dataset (or NHD) and U.S. Environmental Protection Agency

USGS Web Page: http://nhd.usgs.gov

Spatial Data Source:

The NHD is initially based upon the content of USGS 1:100,000 Digital Line Graph (DLG) hydrography data integrated with reach-related information from the EPA Reach File Version 3 (RF3). Attribute accuracy is estimated at 98.5%. The NHD supersedes DLG and RF3 by incorporating them, not by replacing them. Users of DLG or RF3 will find the National Hydrography Dataset both familiar and greatly expanded and refined. While initially based on 1:100,000-scale data, the NHD is designed to incorporate higher resolution (1:24,000) data required by many users. NHD is available at 1:100,000 with a target source of 1:24,000 currently under development. In Alaska, the NHD will be available at 1:63,360 resolution.

Horizontal Accuracy:

Based on accuracy statements made for USGS topographic quadrangle maps. Targeted to National Standard for Spatial Data Accuracy (NSSDA). Target coverage coordinate precision is double precision to accept up to 15 digits.

NHD coordinates are created in decimal degrees with 7 digits to the right of the decimal place (e.g. .1234567). This level of precision in decimal degrees equates to between approximately .02 and 1 meter in projected coordinate units on the ground (depending on the latitude of the coordinate).

Additional offsets to positions may have been introduced where there are many features to improve the legibility of map symbols. This occurs because much of the source data was derived from a cartographic source (DLG or CFF). As positional accuracy is improved through edits this cartographic constraint will be removed. In addition, the digitizing of maps is estimated to contain a horizontal positional error of less than or equal to 0.003-inch standard error (at map scale) in the two component directions relative to the source maps. Visual comparison between the map graphic (including digital scans of the graphic) and plots or digital displays of points, lines, and areas is used to assess the positional accuracy of digital data.

Linear features of the same type along the adjoining edges of data sets are aligned if they are within a 0.02-inch tolerance (at map scale). At 1:100,000 scale, 0.02 inch is approximately 167 feet (50.8 meters), and at 1:24,000 scale, 40 feet (approximately 12.2 meters).

Projection:

Forest appropriate. NHD data initially comes in a geographic projection. Based on a decimal degree projection, fuzzy tolerances should not be larger than .02 meters in ARC/INFO analysis operations such as CLEAN or UNION to prevent coalescence of point data. A complete ARC/INFO projection file is required and projections must match other coverages used for NRIS Water Application.

Datum:

Forest appropriate. A complete ARC/INFO projection file is required. The NHD coverage is created and distributed by USGS in NAD83 datum.

Units of Measure:

Forest appropriate. A complete ARC/INFO projection file is required. NHD coverage is distributed in decimal degrees with arc (.AAT) lengths expressed in decimal degrees. Section and route measures were established in meters while the arcs were in an Albers projection.

Feature Types:

Route, Region, Point

Route Systems:

Name: DRAIN

Description: The **DRAIN** route subclass contains routes that comprise a linear surface water drainage network. Drain routes represent features such as stream/rivers, canal/ditches, and pipelines portrayed as single lines, or the artificial paths through open waters. The drain features are further classified by periodicity and or classification (i.e. perennial or intermittent).

The network elements are routes rather than simple arcs because single network element features may be composed of multiple arcs in the ARC/INFO data model. For example, a single stream/river (one network element) can be crossed by a canal, creating two separate arcs. The drain feature class groups these two arcs into a single network element.

The drain route system consists of routes built on the arcs stored in the ARC/INFO coverage named **NHD**. Because these routes are employed simply as a mechanism for managing multiple arcs as a single entity, the measures associated with them are not assigned systematically and serve no useful purpose.

Name: RCH

Description: RCH is a route subclass depicting all transport and coastline stream reaches within a subbasin of interest to an administrative unit. A reach is defined as a significant piece of surface water generally, but not always, between two confluences (see reach concept reference at http://nhd.usgs.gov/chapter1/index.html#_Toc474479797). A reach is a continuous, unbroken expanse of surface water. A single transport or coastline reach is composed of one or more network element (DRAIN) routes. Flow relationships link together individual transport and coastline reaches to form the surface water flow network.

Route reach code (RCH_CODE) identifiers will be supplied by USGS in the original datasets. As routes are added during local stewardship, the local steward from the Forest or District defines the routes based on NHD

guidelines (see http://nhd.usgs.gov/chapter1/index.html#_Toc474479747). The NHD.RATRCH table in INFO contains the transport and coastline reach delineations. Route length (METERS column) is in meters and route direction must be oriented upstream with arc coordinates oriented downstream when flow direction is known. Route and section measures are in percentage of route length. Additional stream attributes must be stored in an "event table" designed for use with this route system. The key column in the RCH route is RCH_CODE. All event data must relate to this NHD.RATRCH attribute

Name: LM

Description: The **LM** or landmark route subclass contains groupings of arcs useful for displaying line landmark theme elements. The NHD.RATLM table in INFO contains *routes* representing linear NHD hydrographic landmark features. They are routed because more than one arc may make up a feature type. Examples include 1 dimensional features such as bridges, dams, rapids, and waterfalls, largely serving cartographic needs. For more information, see http://nhd.usgs.gov/chapter2/index.html#_Toc471114146

The line landmark route system consists of routes built on the arcs stored in the ARC/INFO coverage named **NHD**. Because these routes are employed simply as a mechanism for managing multiple arcs as a single entity, the measures associated with them are not assigned systematically and serve no useful purpose.

Region Systems:

Name: WB

Description: A waterbody is an areal hydrographic feature such as lake/pond, swamp/marsh and other 2 dimensional hydrographic features. The WB features are further classified by periodicity and or classification (i.e. perennial or intermittent).

The waterbody features are implemented as regions rather than simple polygons because single waterbody feature may be composed of multiple polygons in the ARC/INFO data model.

The area of WB features is stored in the SQ_KM (square kilometers) column. This value is calculated by summing the areas of the individual polygons of which the region feature is composed. Area is stored in square kilometers in order to maintain a consistent unit of measure. When available, official geographic names and identifiers are provided by USGS along with elevation and stage when elevation was measured.

Observation data are not tied to this region. Observation data must be associated with the RCH region subclass found in NHD.PATRCH described below.

Name: RCH

Description: This theme contains *regions* representing waterbody reaches. Waterbody reach regions consist of one or more waterbody regions.

A waterbody reach provides a handle for linking (relating) additional descriptive information to a waterbody. The key item for associating additional attribute data to waterbody reaches is RCH_CODE. In the initial release of the NHD, waterbody reaches may only exist on NHD lake/pond waterbody features. Additional RCH regions can be created during local stewardship of the data. Region reach code (RCH_CODE) identifiers will be supplied by USGS in the original datasets. As regions are added during local stewardship, the local steward from the Forest or District defines the regions based on NHD guidelines (see http://nhd.usgs.gov/chapter1/index.html#_Toc474479756). It is possible that some NHD lake/pond features will not have a waterbody reach in the initial release of the NHD. Waterbody reaches can exist for head, terminal, in-line, and isolated waterbodies. NHD lake/pond features associated with a drainage network (head, terminal, and in-line lake/ponds) may contain both a waterbody reach and a transport reach on their areal and linear (artificial path) representations, respectively. The NHD feature ID's (COM_ID) for these two types of reaches will be different. The RCH_CODE also will be different for the waterbody reach and a transport reach running through it. Lake/ponds that are isolated from a surface-water drainage network may contain a waterbody reach but not a transport reach because they are not associated with a drainage network.

The area of waterbody reaches is stored in the SQ_KM (square kilometers) column This value is calculated by summing the areas of the individual polygons of which the region feature is composed. Area is stored in square kilometers in order to maintain a consistent unit of measure. When available, official geographic names and identifiers are provided by USGS.

Name: LM

Description: This theme contains *regions* representing areal NHD hydrographic landmark features, largely serving cartographic representations. Examples include 2 dimensional features such as inundation zones, foreshores, spillways, and areas to be submerged.

The areal landmark features are implemented as regions rather than simple polygons because single landmark feature may be composed of multiple polygons in the ARC/INFO data model.

The area of LM features is stored in the SQ_KM (square kilometers) column. This value is calculated by summing the areas of the individual polygons of which the region feature is composed. Area is stored in square kilometers in order to maintain a consistent unit of measure. When available, official geographic names and identifiers are provided by USGS along with elevation and stage when elevation was measured.

INFO Attribute Tables

nhd.ratdrain

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*DRAIN#*	*4*	*5*	*B*	-		-
5	*DRAIN-ID*	*4*	*5*	*B*	-		-
9	COM_ID	4	10	B	-		-
13	RCH_COM_ID	4	10	B	-		-
17	WB_COM_ID	4	10	B	-		-
21	FTYPE	24	24	C	-		-
45	FCODE	5	5	I	-		-
50	METERS	4	12	F	0		-

nhd.ratrch

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*RCH#*	*4*	*5*	*B*	-		-
5	*RCH-ID*	*4*	*5*	*B*	-		-
9	COM_ID	4	10	B	-		-
13	RCH_CODE	14	14	C	-		-
27	RCH_DATE	8	8	C	-		-
35	LEVEL	5	5	I	-		-
40	METERS	4	12	F	0		-
44	GNIS_ID	8	8	C	-		-
52	NAME	99	99	C	-		-

nhd.ratlm

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*LM#*	*4*	*5*	*B*	-		-
5	*LM-ID*	*4*	*5*	*B*	-		-
9	COM_ID	4	10	B	-		-
13	FTYPE	24	24	C	-		-
37	FCODE	5	5	I	-		-
42	METERS	4	12	F	0		-
46	GNIS_ID	8	8	C	-		-
54	NAME	99	99	C	-		-

nhd.patwb

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*WB#*	*4*	*5*	*B*	-		-
21	*WB-ID*	*4*	*5*	*B*	-		-
25	COM_ID	4	10	B	-	WB_COM_ID	-
29	RCH_COM_ID	4	10	B	-		-
33	FTYPE	24	24	C	-		-
57	FCODE	5	5	I	-		-
62	ELEV	4	12	F	1		-
66	STAGE	24	24	C	-		-
90	SQ_KM	8	18	F	3		-
98	GNIS_ID	8	8	C	-		-
106	NAME	99	99	C	-		-

nhd.patrch

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*RCH#*	*4*	*5*	*B*	-		-
21	*RCH-ID*	*4*	*5*	*B*	-		-
25	COM_ID	4	10	B	-		-
29	RCH_CODE	14	14	C	-		-
43	RCH_DATE	8	8	C	-		-
51	SQ_KM	8	18	F	3		-
59	GNIS_ID	8	8	C	-		-
67	NAME	99	99	C	-		-

nhd.patlm

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*LM#*	*4*	*5*	*B*	-		-
21	*LM-ID*	*4*	*5*	*B*	-		-
25	COM_ID	4	10	B	-		-
29	FTYPE	24	24	C	-		-
53	FCODE	5	5	I	-		-
58	ELEV	4	12	F	1		-
62	STAGE	24	24	C	-		-
86	SQ_KM	8	18	F	3		-
94	GNIS_ID	8	8	C	-		-
102	NAME	99	99	C	-		-

nhdpt.pat

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*NHDPT#*	*4*	*5*	*B*	-		-
21	*NHDPT-ID*	*4*	*5*	*B*	-		-
25	COM_ID	4	10	B	-		-
29	FTYPE	24	24	C	-		-
53	FCODE	5	5	I	-		-
58	GNIS_ID	8	8	C	-		-
66	NAME	99	99	C	-		-

Domain for INFO tables, Water Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
COM_ID: Unique identifier of the NHD feature or reach that is never edited. It is assigned across all features by NHD's Feature Object Database.	
Example: 4414351234	Up to 10-digits, this integer value uniquely identifies the occurrence of each feature. Each value occurs only once throughout the nation. When the feature is deleted, the value for its identifier is retired.
ELEV: Elevation above sea level.	
Example: 4288	Elevation of the waterbody, in meters above the vertical datum. In the initial release of the NHD, only canal/ditch, lake/pond, reservoir, and stream/river in the waterbody theme can have elevations. Most of these features do not have a value for elevation, so -9998 (unspecified) is the most common value. For all other NHD feature types, the value for elevation is –9999 (not applicable).
FCODE: Five-digits that encode the feature type and combinations of characteristics and values that can be assigned to a type. The first three digits encode the feature type, and the last two digits encode a set of characteristics and values.	
Example: 34301	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". For example, the feature type "dam/weir" has the code "343". There are five combinations of characteristics and values that can be assigned to features of this type. These combinations are assigned the values of "00" through "04". For the USGS maintained site managing feature codes, go to http://nhd.usgs.gov/chapter1/index.html#_Toc474479793.

Domain for INFO tables, Water Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
FTYPE: Feature type. A feature is a defined entity and its representation.	
Example: Dam/Weir	In the NHD, features include naturally occurring and constructed bodies of water, paths through which water flows, and related entities. Features are classified by type, may be described by additional characteristics, and are delineated using standard methods. Feature types and their corresponding definitions provide the basic description of the features. Each type has a name and a definition. The three most frequently encountered feature types and corresponding definitions are “stream/river”, “lake/pond”, and “canal/ditch”. For the USGS maintained site managing feature types, go to http://nhd.usgs.gov/chapter1/index.html#_Toc474479792
GNIS_ID: GNIS identifier of the stream or waterbody name. A "blank" means that the id is not populated.	
Example: 01383210	Eight-digit identifier for a name in the Geographic Names Information System is stored. See http://mapping.usgs.gov/www/gnis/ for more information.
LEVEL: Stream level. Has a value range of 1 to 99 and the value –9998 for “unspecified”. (Reference “NHD Concepts and Contents” for a more complete discussion of stream level).	
Example: 2	A numeric code that identifies the main path to which a transport reach belongs. Streams that flow into the ocean, from head to mouth, have a level of 1 (i.e. Mississippi River). Tributaries of level 1 streams are assigned a level of 2 (i.e. Missouri River). Tributaries that flow into level 2 streams have a level assignment of 3, etc. Streams that flow into the Great Lakes are assigned level 2. Streams that terminate at the boundary of the US and Canada or Mexico are assigned level 3. Other enclosed basins (i.e. Great Salt Lake) and their main tributary are level 4.
METERS: Distance measure of the linear feature, in meters. (Reference “NHD Concepts and Contents” for projection and coordinate system information).	
Example: 4120	The length of the reach units established in meters.
NAME: Text of the GNIS name for the feature. A “blank” means that the name is not populated. (Reference “NHD Concepts and Contents” Appendix A for name information by NHD feature type).	
Example: West Fork Trinity River	A geographic name is “the proper name, specific term, or expression by which a particular geographical entity is, or was, known” (Orth and Payne, 1997, p. 43). A name is associated with each GNIS_ID. Geographic names designated as being official for Federal use are encoded for many reaches and features. These names were taken from the National Geographic Names Database of the Geographic Names Information System[8].
RCH_CODE: A numeric code that uniquely identifies a reach feature. This 14-digit code has 2 parts: the first 8 digits are the hydrologic unit code for the subbasin in which the reach is located; the last 6 digits are assigned in sequential order, and arbitrarily among the reaches.	
Example: 12030102000422	Each code occurs only once in the nation. Once assigned, it is permanent and is retired if the reach is retired. Reach codes serve to geocode an observation to a reach or a position along a reach using the reach code. This is the key item for relating event or other attribute tables.

Domain for INFO tables, Water Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
RCH_COM_ID: Stores the common identifier (COM_ID) of the transport or coastline reach that underlies a linear DRAIN feature. This is the foreign key for the relationship that defines which route reach (.ratRCH) the drain (.ratDRAIN) is a member of. For waterbodies, this stores the common identifier (COM_ID) of the waterbody reach that underlies a waterbody. This is the foreign key for the relationship that defines which waterbody region reach (.patRCH) the waterbody region subclass (.patWB) is a member of.	
Example: 4414351233	Up to 10-digits, this integer value uniquely identifies the occurrence of each feature. Each value occurs only once throughout the nation. When the feature is deleted, the value for its identifier is retired. It is used to relate linear features and their transport or coastline reaches linking the .ratRCH and .ratDRAIN. For waterbodies, it is used as the link between the .patRCH and the .patWB.
RCH_DATE: Calendar date that the RCH_CODE was assigned. Display format: YYYYMMDD.	
Example: 19880704	The date on which the RCH_CODE was assigned in the NHD is encoded.
SQ_KM: Area of the NHD areal feature, in square kilometers. (Reference "NHD Concepts and Contents" for projection and coordinate system information).	
Example: 9.695	The area of the waterbody named Green Lake is 9.695 square kilometers.
STAGE: Height of the water surface that is the basis for the elevation.	
Average Water Elevation	Average water elevation for the waterbody
Date of Photography	Elevation based on aerial photography
High Water Elevation	The high water elevation of the waterbody
Normal Pool	The normal pool elevation, normally applied to reservoirs
Spillway Elevation	The elevation is the spillway elevation, for reservoirs
WB_COM_ID: Stores the common identifier of the waterbody region that the network element (DRAIN) flows through. It is only applied to drain features of type ARTIFICIAL PATH. This is the foreign key for the relationship that defines which waterbody region (.patRCH) the drain (.ratDRAIN) flows through.	
Example: 4414351235	Up to 10-digits, this integer value uniquely identifies the occurrence of each feature. Each value occurs only once throughout the nation. When the feature is deleted, the value for its identifier is retired. It is used to relate waterbodies and linear features they contain.

Oracle Views

Many of the columns contained in the Oracle views are duplicates of the columns in the INFO tables for water layer. There are several reasons the data is maintained in both places: 1) The data is maintained in the INFO tables so it is readily available in the GIS environment; 2) the NHD standard requires this structure; 3) the data is maintained in Oracle so the information is available in the Oracle portion of the NRIS Water application; and 4) maintaining the data in the Oracle environment allows the use of database controls for data integrity. Columns that are present in both the INFO tables and the Oracle views are referenced in the domain for the INFO tables. As new technologies (SDE and/or Geodatabase) are implemented for the water layers the need for duplication will be eliminated.

Some of the Oracle views below (nrw_ai_chnlmorph_locsum_vm, nrw_ab_taxa_occurrence_listed_vm, nrw_ab_taxa_occurrence_vm, nrw_ai_segment_class_vm, nrw_ai_bank_stability_vm) have been created to summarize data for reporting purposes. These views can have survey data records that have a one-to-many relationship with events. This occurs when a segment that a survey is on is created using more than one event. Thus, the Oracle view can contain records that have identical survey data and different event data. This is because multiple events can comprise a particular survey segment. In addition, multiple surveys can be on one segment.

The route measure for EVT_BIP and EVT_EIP is calculated as a percent of a NHD route length.

NOTE: NRIS Water releases these views with release of version 1.2. Additional views to data contained in the NRIS Water module are being developed and will be incorporated into the standard through the update process.

nrw_nhd_reg_rch_vw

Description: Contains polygon (region) waterbody features. For example: lake/pond.

Name	Null?	Type
RCH_CODE	NOT NULL	VARCHAR2 (34)
COM_ID		VARCHAR2 (34)
RCH_DATE		DATE
SQ_KM		NUMBER ()
GNIS_ID		VARCHAR2 (34)
NAME		VARCHAR2 (100)
RCHSRCTYP_CN_FK	NOT NULL	VARCHAR2 (34)
COMSTTYP_CN_FK	NOT NULL	VARCHAR2 (34)
CREATED_BY	NOT NULL	VARCHAR2 (30)
CREATED_DATE	NOT NULL	DATE
CREATED_IN_INSTANCE	NOT NULL	NUMBER (6,0)
MODIFIED_BY		VARCHAR2 (30)
MODIFIED_IN_INSTANCE		NUMBER (6,0)
MODIFIED_DATE		DATE

nrw_nhd_rte_rch_vw

Description: Contains linear water features. For example: streams and rivers.

Name	Null?	Type
RCH_CODE	NOT NULL	VARCHAR2 (34)
RCH_DATE		DATE
COM_ID	NOT NULL	VARCHAR2 (34)
GNIS_ID		VARCHAR2 (34)
NAME		VARCHAR2 (100)
NHD_LEVEL	NOT NULL	NUMBER (38,0)
METERS		NUMBER (34,0)
RCH_STRM_SEQ		NUMBER (38,0)
BRANRCH_IND		VARCHAR2 (1)
RCHSRCTYP_CN_FK	NOT NULL	VARCHAR2 (34)
COMSTTYP_CN_FK	NOT NULL	VARCHAR2 (34)
STRMLST_CN_FK		VARCHAR2 (34)
CREATED_BY	NOT NULL	VARCHAR2 (30)
CREATED_DATE	NOT NULL	DATE
CREATED_IN_INSTANCE	NOT NULL	NUMBER (6,0)
MODIFIED_BY		VARCHAR2 (30)
MODIFIED_DATE		DATE
MODIFIED_IN_INSTANCE		NUMBER (6,0)

nrw_stream_list_vw

Description: Contains a list of streams that are assembled from the underlying NHD routes based on GNIS name and the change in level between routes. For example: Mississippi River.

Name	Null?	Type
STRMLST_CN	NOT NULL	VARCHAR2 (34)
STREAM_NAME	NOT NULL	VARCHAR2 (240)
TRIBUTARY_TO_CN		VARCHAR2 (34)
MULTI_NAME_IND		VARCHAR2 (1)
CREATED_BY	NOT NULL	VARCHAR2 (30)
CREATED_DATE	NOT NULL	DATE
CREATED_IN_INSTANCE	NOT NULL	NUMBER (6,0)
MODIFIED_BY		VARCHAR2 (30)
MODIFIED_DATE		DATE
MODIFIED_IN_INSTANCE		NUMBER (6,0)

nrw_nhd_pt_vw

Description: Contains water points that are not connected to a linear feature. For example: springs or wells.

Name	Null?	Type
COM_ID	NOT NULL	VARCHAR2 (34)
COMID_NUMBER	NOT NULL	NUMBER (34,0)
FTYPE	NOT NULL	VARCHAR2 (34)
FCODE	NOT NULL	VARCHAR2 (34)
GNIS_ID		VARCHAR2 (34)
NAME		VARCHAR2 (100)
X_COORD	NOT NULL	NUMBER (9,6)
Y_COORD	NOT NULL	NUMBER (9,6)
LOCAL_NAME		VARCHAR2 (240)
COMSTTYP_CN_FK	NOT NULL	VARCHAR2 (34)
RCHSRCTYP_CN_FK	NOT NULL	VARCHAR2 (34)
CREATED_BY	NOT NULL	VARCHAR2 (30)
CREATED_DATE	NOT NULL	DATE
CREATED_IN_INSTANCE	NOT NULL	NUMBER (6,0)
MODIFIED_BY		VARCHAR2 (30)
MODIFIED_IN_INSTANCE		NUMBER (6,0)
MODIFIED_DATE		DATE

nrw_ai_chnlmorph_locsum_vm

Description: This view averages reach data for a survey. Fields prefixed with an 'R' are calculated using data from the bankfull measurements form in Water. Fields prefixed with an 'X' are calculated using cross-section data. Note: This view will not run if the relative elevation measured in the field for cross-section data is not entered as a negative number. For the cross-section data to be calculated both the floodprone and bankfull labels must be entered on the form in Water for each bank.

Name	Null?	Type
WLOC_CN	NOT NULL	VARCHAR2 (34)
HUC	NOT NULL	VARCHAR2 (16)
STRM_NAME	NOT NULL	VARCHAR2 (240)
SEGMENT_ID		VARCHAR2 (240)
SEG_LEN_M		NUMBER ()
RCH_CODE	NOT NULL	VARCHAR2 (34)
EVT_BIP	NOT NULL	NUMBER (12,4)
EVT_EIP	NOT NULL	NUMBER (12,4)
SURVEY_CN		VARCHAR2 (34)
PROTOCOL	NOT NULL	VARCHAR2 (30)
SRVY_DATE	NOT NULL	DATE
CHN_LEN_M		NUMBER ()

nrw_ai_chnlmorph_locsum_vm (continued)

VLY_LEN_M		NUMBER ()
SINUOSITY		NUMBER ()
R_AV_SLOPE		NUMBER ()
R_AV_BFW		NUMBER ()
R_AV_FPW		NUMBER ()
R_AV_BFD		NUMBER ()
R_AV_BFMXD		NUMBER ()
R_AV_ENT		NUMBER ()
R_AV_BFWDR		NUMBER ()
R_AV_XA		NUMBER ()
X_AV_BFW		NUMBER ()
X_AV_FPW		NUMBER ()
X_AV_BFD		NUMBER ()
X_AV_BFMD		NUMBER ()
X_AV_ENT		NUMBER ()
X_AV_BFWDR		NUMBER ()
X_AV_XA		NUMBER ()
X_AV_SLOPE		NUMBER ()

nrw_ab_taxa_occur_listed_vm

Description: Contains occurrence data for federally listed threatened or endangered aquatic taxa. Occurrence is based on survey data.

Name	Null?	Type
SEGMENT_ID		VARCHAR2 (240)
RCH_CODE	NOT NULL	VARCHAR2 (34)
EVT_BIP	NOT NULL	NUMBER (12,4)
EVT_EIP	NOT NULL	NUMBER (12,4)
PROTOCOL_NAME	NOT NULL	VARCHAR2 (30)
SURVEY_START	NOT NULL	DATE
SCI_NAME	NOT NULL	VARCHAR2 (50)
LISTING_STATUS	NOT NULL	VARCHAR2 (8)

nrw_ab_taxa_occurrence_vm

Description: Contains occurrence data for aquatic taxa. Occurrence is based on survey data.

Name	Null?	Type
SEGMENT_ID		VARCHAR2 (240)
RCH_CODE	NOT NULL	VARCHAR2 (34)
EVT_BIP	NOT NULL	NUMBER (12,4)
EVT_EIP	NOT NULL	NUMBER (12,4)
PROTOCOL_NAME	NOT NULL	VARCHAR2 (30)
SURVEY_START	NOT NULL	DATE
SCI_NAME	NOT NULL	VARCHAR2 (50)

nrw_ai_segment_class_vm

Description: Contains segment classifications from aquatic inventory surveys. For example: Rosgen class C.

Name	Null?	Type
SEGMENT_ID		VARCHAR2 (240)
RCH_CODE	NOT NULL	VARCHAR2 (34)
EVT_BIP	NOT NULL	NUMBER (12,4)
EVT_EIP	NOT NULL	NUMBER (12,4)
PROTOCOL_NAME	NOT NULL	VARCHAR2 (30)
SURVEY_START	NOT NULL	DATE
CLASS_SYS	NOT NULL	VARCHAR2 (50)
CLASS_LEVEL	NOT NULL	VARCHAR2 (50)
CLASS	NOT NULL	VARCHAR2 (50)
CLASS_DATE	NOT NULL	DATE
SEGMENT_TYPE	NOT NULL	VARCHAR2 (8)

nrw_ai_bank_stability_vm

Description: Contains percent bank stability from aquatic inventory survey data. For example: Left bank 20% unstable.

Name	Null?	Type
SEGMENT_ID		VARCHAR2 (240)
RCH_CODE	NOT NULL	VARCHAR2 (34)
EVT_BIP	NOT NULL	NUMBER (12,4)
EVT_EIP	NOT NULL	NUMBER (12,4)
PROTOCOL_NAME	NOT NULL	VARCHAR2 (30)
SURVEY_START	NOT NULL	DATE
PERCENT_LEFTBANK_UNSTABLE		NUMBER ()
PERCENT_RIGHTBANK_UNSTABLE		NUMBER ()
PERCENT_LEFTRIGHTBANK_UNSTABLE		NUMBER ()
PERCENT_TOTAL_UNSTABLE		NUMBER ()

Domain for Oracle views, Water Layer. Columns that are present in both the INFO tables and Oracle views are referenced in the INFO domain.	
ITEM NAME: Description	
Valid Values	**Value Description**
AVG_BF_AVG_DEPTH_M: Average bank-full depth in meters. Determined from the cross-section and from the bank-full measurements. Depth of water measured from the surface to the channel bottom when the water surface is even with the top of the streambank.	
Example: 0.37	Calculates the average depth between the bank-full indicators on the cross-section.
AVG_BF_MAX_DEPTH_M: Average max depth in meters. Determined from the deepest point between the bank-full indicators on the cross-section, and the deepest depth in the depth measurement field.	
Example: 0.52	
AVG_BF_WIDTH_M: Average bank-full width in meters. Determined from the cross-section. Channel width between the tops of the most pronounced banks on either side of a stream reach.	
Example: 6.6	
AVG_FP_WIDTH_M: Average flood-prone width in meters. Determined from the cross-section.	
Example: 10.2	For this to be calculated, the point label field on the cross-section form in Water must be labeled with the flood-prone indicators.
AVG_BF_WIDTH_DEPTH_RATIO: Average width/depth ratio. Depth of water measured from the surface to the channel bottom when the water surface is even with the top of the streambank.	
Example: 10.5	
AVG_ENTRENCHMENT: Average entrenchment ratio. Divide the flood-prone area width by the bank-full width to calculate the entrenchment ration.	
Example: 1.4	The average entrenchment ratio is 1.4.
AVG_WATER_SLOPE_PCT: Average water slope in percent. Elevation change divided by distance along the stream.	
Example: 4.4	
AVG_XSEC_AREA_SQM: Average cross-sectional area in square meters.	
Example: 7.56	The average cross-section area is 7.56 square meters.
BRANRCH_IND: Indicates a branched reach. Branched reaches lie under some lake/ponds and are not allowed to contain the endpoints of a water location.	
Example: Y	The route is a branched reach.
CHN_LEN_M: Channel length in meters.	
Example: 220	Example: 220

Domain for Oracle views, Water Layer. Columns that are present in both the INFO tables and Oracle views are referenced in the INFO domain.	
ITEM NAME: Description	
Valid Values	**Value Description**
CLASS: Classification of a reach or valley segment.	
Example: C	Example: C
CLASS_DATE: The date the reach or valley segment classification was made.	
Example: 8/10/1995	The classification was made on 8/10/1995.
CLASS_LEVEL:	
Example: Level I	The level within the classification system.
CLASS_SYS: The name of the system used to classify a reach or valley segment.	
Example: Rosgen	Rosgen is the name of the classification system used to classify a reach.
COMID_NUMBER: Unique identifier of the NHD feature or reach that is never edited. It is assigned across all features by NHD's Feature Object Database.	
Example: 4414351352	Up to 10-digits, this integer value uniquely identifies the occurrence of each feature. The number facilitates direct joins to SDE. Provides a hook to data that is in SDE.
COMID_NUMBER: The	
Example: Rosgen	Rosgen is the name of the classification system used to classify a reach.
COMSTTYP_CN_FK: For streams, the link between a record in the Oracle NRW_NHD_RTE_RCH_VW view and a record in NRIS Water view NRW_COMID_STATUS_TYPES_VW. For waterbodies, the link between a record in the Oracle NRW_NHD_REG_RCH_VW view and a record in NRIS Water view NRW_COMID_STATUS_TYPES_VW. Not Null. The only two valid codes in the COMSTTYP_CODE include:	
PERM	COM_ID is permanent and will NOT be changed when an updated NHD source is loaded.
TEMP	COM_ID is temporary and will be changed when an updated NHD source is loaded.
CREATED_BY: Name of the person who created the record. Not null.	
Example: BSMITH	Barb Smith created this record
CREATED_DATE: Date record was created. Not null.	
Example: 18-JULY-2001	The record was created on July 18th, 2001.
CREATED_IN_INSTANCE: Identifies the Oracle instance (computer system) in which the record was created. Not null.	
Example: 222222	The record was created in Oracle instance 222222.
EVT_BIP: The route measure for the beginning of the event.	
Example: 0	The begin measure for an event is zero (0).
EVT_EIP: The route measure for the end of the event.	
Example: 100	The end measure for an event is 100.

Domain for Oracle views, Water Layer. Columns that are present in both the INFO tables and Oracle views are referenced in the INFO domain.	
ITEM NAME: Description	
Valid Values	**Value Description**
LISTING_STATUS: Status of a taxon listed for protection.	
Example: THREATEN	The listing status for a taxon is 'Threatened'.
LOCAL_NAME: Text of a locally assigned name of the water point feature for features that are not a part of the NHD dataset. A "blank" means that the name is not populated.	
Example: Old Glory	In this example, "Old Glory" is a locally assigned name that is not officially recognized in the Geographic Names Information System.
MODIFIED_BY: Name of the person who last modified the record.	
Example: JPAGE	Jimmy Page modified this record.
MODIFIED_IN_INSTANCE: Identifies the Oracle instance (computer system) in which the record was modified.	
Example: 222222	The record was modified in Oracle instance 222222.
MULTI_NAME_IND: Indicates if more than one name was found for the stream in the NRW_NHD_RTE_RCH_VW view.	
Example: Y	The stream has more than one name in the NRW_NHD_RTE_RCH_VW view.
PERCENT_LEFTBANK_UNSTABLE: The percent of the left bank that is unstable.	
Example: 18.21	18.21 percent of the left bank is unstable.
PERCENT_RIGHTBANK_UNSTABLE: The percent of the right bank that is unstable.	
Example: 8.43	8.43 percent of the right bank is unstable.
PERCENT_LEFTRIGHTBANK_UNSTABLE: The percent of the left and right bank, averaged together, that is unstable. Based on a simple average of the user-entered length of unstable **left** and **right** bank.	
Example: 13.32	13.32 percent of the left and right bank, averaged together, is unstable.
PERCENT_TOTAL_UNSTABLE: The percent of the left and right bank, together, that is unstable. Based on user-entered length for **Total Length** of unstable banks.	
Example: 11.57	11.57 percent of the total left and right bank, together, is unstable.
PROTOCOL_NAME: Name of protocol by which a survey was conducted.	
Example: R6 Westside Count	User defined.
R_AV_BFD: Average bankfull depth for the survey, in meters. Determined by averaging each set of measured bankfull depths, then averaging all for the survey. Does not include cross-section bankfull depths from the cross-section form.	
Example: 0.42	Example: 0.42
R_AV_BFMXD: Average bankfull maximum depth for the survey, in meters. Determined from the measured bankfull maximum depth then averaged for the survey. Does not include cross-section bankfull maximum depths from the cross-section form.	
Example: 0.57	Example: 0.57
R_AV_BFW: Average bankfull width for the survey, in meters. Determined from the measured bankfull width, and averaged for the survey. Does not include the cross-section bankfull widths from the cross-section form.	
Example: 6.6	Example: 6.6

Domain for Oracle views, Water Layer. Columns that are present in both the INFO tables and Oracle views are referenced in the INFO domain.	
ITEM NAME: Description	
Valid Values	**Value Description**
R_AV_BFWDR: Average bankfull width/depth ratio for the survey. Determined by calculating each bankfull width/depth ratio as the bankfull width divided by the average bankfull depth. Then averaging for the survey. Does not include cross-section values from the cross-section form.	
Example: 15.71	Example: 15.71
R_AV_ENT: Average entrenchment ratio for the survey. Determined by calculating each entrenchment as the flood-prone width divided by the bankfull width, then averaged for the survey. Does not include cross-section values from the cross-section form.	
Example: 3.24	Example: 3.24
R_AV_FPW: Average flood-prone width for the survey, in meters. Determined from the measured flood-prone width, and averaged for the survey. Does not include cross-section flood-prone widths from the cross-section form.	
Example: 21.4	Example: 21.4
R_AV_SLOPE: Average slope for the survey, in percent. Slope is calculated by subtracting the min elevation from the max elevation, dividing by the channel length, and then multiplying by 100.	
Example: 4.4	Example: 4.4
R_AV_XA: Average bankfull cross-sectional area for the survey, in square meters. Determined by calculating each cross-sectional area as the bankfull width multiplied by the average bankfull depth. Then averaging for the survey. Does not include cross-section values from the cross-section form.	
Example: 2.77	Example: 2.77
RCHSRCTYP_CN_FK: For streams, the link between a record in the NRW_NHD_RTE_RCH_VW view and a record in an NRIS Water Database type view named NRW_RCH_SOURCE_TYPES_VW. For waterbodies, the link between a record in the NRW_NHD_REG_RCH_VW view and a record in the NRIS Water type table NRW_RCH_SOURCE_TYPES. Not Null. The only two valid codes in the RCHSRCTYP_CODE include:	
NHD	Feature is part of the National Hydrography Dataset.
OTHER	Feature is not part of the National Hydrography Dataset.
RCH_STRM_SEQ: Sequence of the current route within its parent stream counting from the most downstream segment.	
Example: 5	The 5th stream route within the parent stream, counting from the lowest point of the parent stream.
SCI_NAME: A taxon's scientific name.	
Example: Terrapene Carolina	The scientific name for a taxon (a species, in this case) is 'Terrapene carolina'.
SEGMENT_ID: Identifier assigned to a stream segment. The segment_id is user designated.	
Example: Segment 14b	The segment created is given segment_id: Segment 14b.
SEGMENT_LENGTH_M: Length of stream segment in meters.	
Example: 1172.5	The segment length is 1172.5 meters.
SEGMENT_TYPE: Defines the type of stream segment.	
Example: Reach	The segment type is a reach.

Domain for Oracle views, Water Layer. Columns that are present in both the INFO tables and Oracle views are referenced in the INFO domain.	
ITEM NAME: Description	
Valid Values	**Value Description**
SINUOSITY: Ratio of channel length between two points in a channel to the straight-line distance between the same two points. Ratio of channel length to valley length.	
Example: 1.3	Channels with sinuosities of 1.5 or more are called "meandering," while those close to 1.0 are called "straight."
STREAM_NAME: Text of the stream name, of which the reach is a part. Set to "Unnamed" if the GNIS name is not populated.	
Example: North Fork Flathead River	A geographic name is "the proper name, specific term, or expression by which a particular geographical entity is, or was, known" (Orth and Payne, 1997, p. 43). A name is associated with each GNIS_ID. Geographic names designated as being official for Federal use are encoded for many reaches and features. These names were taken from the National Geographic Names Database of the Geographic Names Information System[8].
STRMLST_CN_FK: The link between a record in the Oracle NRW_NHD_RTE_RCH_VW view and a record in NRIS Water view NRW_STREAM_LIST_VW.	
Example: 1000000222222	The value 1000000222222 is a foreign key.
STRMLST_CN: The link between a record in the NRW_NHD_RTE_RCH_VW view and a record in the NRIS Water view NRW_STREAM_LIST_VW. Not null.	
Example: 1000001222222	The value 1000001222222 is a foreign key.
SURVEY_START: Date survey started.	
Example: 22-JULY-2001	The survey was started on July 22, 2001.
TOT_CHANNEL_LENGTH_M: Channel length in meters	
Example: 220	The channel length is 220 meters.
TOT_VALLEY_LENGTH_M: Valley length in meters.	
Example: 209	The valley length is 209 meters.
TRIBUTARY_TO_CN: Stream into which the current stream flows. This links records within the NRW_STREAM_LIST_VW view.	
Example: 1001064222222	The value 1001064222222 is an Oracle generated control number identifying the stream that receives the tributary's flow.
VALLEY_LEN_M: Valley length in meters.	
Example: 209	Example: 209
WLOC_CN: The link between a record in the NRW_AI_CHNLMORPH_LOCSUM_VM and a record in table NRW_WATER_LOCATIONS. Not Null.	
Example: 1000063010636	The value 1000063010636 is an Oracle generated control number.
X_AV_BFD: Average cross-section bankfull depth for the survey, in meters. The average bankfull depth of each cross-section is calculated (weighted by width), and then averaged for the survey. The bankfull labels must be entered for this to be calculated.	
Example: 0.37	Example: 0.37

Domain for Oracle views, Water Layer. Columns that are present in both the INFO tables and Oracle views are referenced in the INFO domain.	
ITEM NAME: Description	
Valid Values	**Value Description**
X_AV_BFMD: Average cross-section bankfull max depth for the survey, in meters. Determined from the deepest point between the bankfull indicators for each cross-section, and then averaged for the survey. The bankfull labels must be entered for this to be calculated.	
Example: 0.52	Example: 0.52
X_AV_BFW: Average cross-section bankfull width for the survey, in meters. Bankfull width is calculated for each cross-section by subtracting the right bank distance from the left bank distance, and then averaged for the survey. The bankfull labels must be entered for this to be calculated.	
Example: 6.6	Example: 6.6
X_AV_BFWDR: Average cross-section width/depth ratio for the survey. Calculated by dividing each cross-section bankfull width by the average cross-section bankfull depth. Then averaging for the survey. The bankfull labels must be entered for this to be calculated.	
Example: 10.5	Example: 10.5
X_AV_ENT: Average cross-section entrenchment ratio for the survey. Calculated by dividing each cross-section flood-prone width by the cross-section bankfull width, then averaged for the survey. Both the flood-prone and bankfull labels must be entered for this to be calculated.	
Example: 1.54	Example: 1.54
X_AV_FPW: Average cross-section flood-prone width for the survey, in meters. Flood-prone width is calculated for each cross-section by subtracting the right bank distance from the left bank distance, and then averaged for the survey. The flood-prone labels must be entered for this to be calculated.	
Example: 10.2	Example: 10.2
X_AV_SLOPE: Average water slope for the survey, in percent. The water slope entered as a percent averaged for the survey.	
Example: 4.4	Example: 4.4
X_AV_XA: Average bankfull cross-sectional area for the survey, in square meters. The cross-sectional area of each cross-section is calculated by summing the areas of each subsection of the cross-section as the bankfull width of the subsection multiplied by the average bankfull depth (weighted by width) of the subsection. Then all the calculated cross-sectional areas are averaged for the survey. The bankfull labels must be entered for this to be calculated.	
Example: 7.56	Example: 7.56
X_COORD: X-coordinate of a point feature (longitude) in decimal degrees with reference to the forest appropriate datum. Not null.	
Example: -113.74661	Longitude of the water point feature in decimal degrees is 113.74661 degrees west longitude using the datum in the coverage projection file
Y_COORD: Y-coordinate of a point feature (latitude) in decimal degrees with reference to the forest appropriate datum. Not null.	
Example: 46.12345	Latitude of the water point feature in decimal degrees is 46.12345 degrees north latitude using the datum in the coverage projection file.

Layer: Watershed

The Watershed layer contains the following coverages:

- watershed
- wi_region

Coverage Name: watershed

Coverage Description:

A coverage describing the 2-dimensional spatial location of hierarchical hydrologic unit delineations based on Natural Resource Conservation Service and U.S. Geological Survey approved subbasins within or partially within a Forest Service administrative unit. Multiple subbasins are typically managed in a single coverage for a Forest or administrative unit.

A watershed is defined as polygons hierarchically representing areas of land (hydrologic units) that are drained by distinct streams or complex river systems. The polygons represent subbasins, watersheds, and subwatersheds, or portions of each of these aggregated into ARC/INFO regions. This layer may contain further refinement of hydrologic units as an option on the forest or administrative unit. Watershed delineation attribute tables and attribute structures are shown here to follow a repeatable pattern. Any further hydrologic subdivisions that create delineations smaller than a 6th level should continue to use this system. Subdivisions of a subwatershed to a 7th level are termed "catchments". Further subdivisions of those catchments to an 8th level are termed "subcatchments."

All polygon and region feature subclasses are stored together in the coverage named **WATERSHED.**

Associated National Application: NRIS Water Application

References:

Sources of watershed delineation protocol:

http://www.ftw.nrcs.usda.gov/huc_data.html

U.S. Geological Survey – National Hydrography Dataset (NHD) and U.S. Environmental Protection Agency Web Page:
http://nhd.usgs.gov/chapter1/index.html#_Toc474479810

Spatial Data Source:

Best available source with a target source scale of 1:24,000 for continental U.S., Puerto Rico, and Hawaii and 1:63,360 for Alaska.

Horizontal Accuracy:

Based on accuracy statements made for USGS topographic quadrangle maps. Targeted to National Standard for Spatial Data Accuracy (NSSDA). Coverage target is double precision.

Projection:

Forest appropriate. A complete ARC/INFO projection file is required and projections must match other coverages used for NRIS Water.

Datum:

Forest appropriate. A complete ARC/INFO projection file is required. Must match other coverages used for NRIS Water.

Units of Measure:

Forest appropriate. A complete ARC/INFO projection file is required. Must match other coverages used for NRIS Water.

Feature Type:

Regions

Region Systems:

Name: HUC4

Description: Also known as a subbasin, the 4th level of drainage delineation of the 1974 Water Resources Council / USGS hierarchy of national hydrologic unit's (HU). This HU is coded with 8-digits. Minimum size is about 700 sq. miles (448,000 acres).

Hydrologic unit delineations will meet NRCS and USGS interagency standards.

Name: HUC5

Description: Also known as a watershed, the 5th level of HU delineation. Continues the 1974 Water Resources Council / USGS fourth level hierarchy of HU's to the next smaller useful size. This is represented by extending the 8-digit HUC to 10-digits. Typical size is 40,000 to 250,000 acres. Should be based on standard boundaries developed in conjunction with the pertinent state office of the Natural Resources Conservation Service.

Hydrologic unit delineations will meet NRCS and USGS interagency standards.

Name: HUC6

Description: Also known as a subwatershed, the 6th division level of hydrologic unit delineation. Represented by extending the 10-digit HUC to 12-digits. Typical size is 10,000 to 40,000 acres, with some as small as 3,000 acres. Should be based on standard boundaries developed in conjunction with the pertinent state office of the Natural Resources Conservation Service.

Hydrologic unit delineations will meet NRCS and USGS interagency standards.

INFO Attribute Tables

watershed.pathuc4

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*HUC4#*	*4*	*5*	*B*	-		-
21	*HUC4-ID*	*4*	*5*	*B*	-		-
25	HUC4	8	8	C	-		-
33	HUC_NAME	80	80	C	-		-

watershed.pathuc5

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*HUC5#*	*4*	*5*	*B*	-		-
21	*HUC5-ID*	*4*	*5*	*B*	-		-
25	HUC5	10	10	C	-		-
35	HUC_NAME	80	80	C	-		-

watershed.pathuc6

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*HUC6#*	*4*	*5*	*B*	-		-
21	*HUC6-ID*	*4*	*5*	*B*	-		-
25	HUC6	12	12	C	-		-
37	HUC_NAME	80	80	C	-		-

Domain for INFO tables, Watershed Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
HUC4: A subdivision of a basin in the USGS hierarchy. The USGS refers to the subbasin level of the hierarchy as Cataloging Units. Commonly referred to as a fourth field hydrologic unit.	
Example: 17010209	The eight-digit composite code containing four two-digit fields representing region, subregion, river basin, and subbasin. A HUC4 is the subbasin level or cataloging unit in the USGS hydrologic hierarchy. See http://cfpub1.epa.gov/surf/locate/index.cfm.
HUC5: A subdivision of a subbasin. It is contained within the boundary of the subbasin. Commonly referred to as a fifth field hydrologic unit.	
Example: 1701020901	A ten-digit composite code containing five two-digit fields representing region, subregion, river basin, subbasin, and watershed. A HUC5 is the watershed level in the hydrologic hierarchy.
HUC6: A subdivision of a watershed. It is contained within the boundary of the watershed. Commonly referred to as a sixth field hydrologic unit.	
Example: 170102090102	The twelve-digit composite code containing six two-digit fields representing region, subregion, river basin, subbasin, watershed, and subwatershed. A HUC6 is the subwatershed level in the hydrologic hierarchy.
HUC_NAME: Name of the Hydrologic Unit.	
Example: South Fork Flathead	For Region HUC4, names will be based on 4th level of drainage delineation of the 1974 Water Resources Council / USGS. See http://cfpub1.epa.gov/surf/locate/index.cfm. For Regions HUC5 and HUC6, names should be based on standards developed in conjunction with the pertinent state office of the Natural Resources Conservation Service.

Oracle Views

NOTE: NRIS Water releases this view with release of version 1.2. Additional views to data contained in the NRIS Water module are being developed and will be incorporated into the standard through the update process.

nrw_hucs_vw

Description: Holds the hydrologic unit code hierarchical level control number and area measures. It is used for identifying the hydrologic unit code into NRIS Water.

Name	Null?	Type
HUC	NOT NULL	VARCHAR2 (16)
HUC_LEVEL	NOT NULL	NUMBER (2,0)
HUC_CN	NOT NULL	VARCHAR2 (34)
AREA_UOMSTND		VARCHAR2 (15)
AREA_STND		NUMBER ()
HUC_NAME		VARCHAR2 (80)
ECOHIER_CN_FK		VARCHAR2 (34)
PARENT_HUC_FK		VARCHAR2 (16)
CREATED_BY	NOT NULL	VARCHAR2 (30)
CREATED_DATE	NOT NULL	DATE
CREATED_IN_INSTANCE	NOT NULL	NUMBER (6,0)
MODIFIED_BY		VARCHAR2 (30)
MODIFIED_DATE		DATE
MODIFIED_IN_INSTANCE		NUMBER (6,0)

Domain for Oracle views, Watershed Layer – coverage name: watershed	
ITEM NAME: Description	
Valid Values	**Value Description**
AREA_STND: Value of area converted using the standard AREA_UOMSTND. This value is used in reports.	
Example: 1.387	The area is 1.387 hectares.
AREA_UOMSTND: Unit of measure used to convert the measured variable AREA_UOM.	
Ha	The unit of measure standard for watershed is hectares.
CREATED_BY: Name of the person who created the record. Not null.	
Example: IANDERSON	Ian Anderson created this record
CREATED_DATE: Date record was created. Not null.	
Example: 29-JULY-2001	This record was created on July 29th, 2001.
CREATED_IN_INSTANCE: Identifies the Oracle instance in which the record was created. Not null.	
Example: 222222	The record was created in Oracle instance 222222.

Domain for Oracle views, Watershed Layer – coverage name: watershed	
ITEM NAME: Description	
Valid Values	**Value Description**
ECOHIER_CN_FK: (Reserved by NRIS Water version 1.2).	
Example: (reserved)	(reserved)
HUC: The hydrologic unit code for the cataloging unit in which the reach is located. Not null.	
Example: 12030102	Hydrologic unit coding classification based on NRCS system of multiple-scale, nested water drainages is 12030102.
HUC_CN: Unique, system generated control number. Not null.	
Example: 1000016222222	The value 1000016222222 is an Oracle generated control number identifying the HUC.
HUC_LEVEL: A level number for the hydrologic unit code. Level 1 = region; level 2 = subregion; level 3 = basin; level 4 = subbasin; level 5 = watershed; level 6 = subwatershed; level 7 = catchment; level 8 = subcatchment. Not null.	
Example: 4	The 4th hierarchical level of classification in the Hydrologic unit coding based on NRCS system of multiple-scale, nested water drainages. Sources of watershed delineation protocol: http://www.ftw.nrcs.usda.gov/huc_data.html
HUC_NAME: Name of the Hydrologic Unit. For Region HUC4, names will be based on 4th level of drainage delineation of the 1974 Water Resources Council / USGS. http://cfpub1.epa.gov/surf/locate/index.cfm. For Regions HUC5 and HUC6, names should be based on standards developed in conjunction with the pertinent state office of the Natural Resources Conservation Service.	
South Fork Flathead	The hydrologic units name is South Fork Flathead.
MODIFIED_BY: Name of the person who last modified the record.	
Example: RSTEWART	Rod Stewart modified this record.
MODIFIED_DATE: Date record was last modified.	
Example: 20-JULY-2001	The last change modified this record on July 20th, 2001.
MODIFIED_IN_INSTANCE: Identifies the Oracle instance in which the record was modified.	
Example: 222222	The record was modified in Oracle instance 222222.
PARENT_HUC_FK: Foreign key for the recursive relationship between a HUC and the HUC the current record is a member of.	
Example: 1701020510	1701020510 is the parent hydrologic unit of 170102051006 in this example.

Coverage Name: wi_region

Coverage Description:	A watershed improvement area is defined as areas of land with needs for improvements. The spatial locations are sites determined by an administrative unit of the Forest Service. **WI_REGION** is a coverage describing the 2-dimensional spatial location of user provided identifiers for a watershed improvement area containing planning, implementation about watershed improvement projects. It is also used to track restoration, enhancement, maintenance, or monitoring activities. All polygon and region feature subclasses are stored together in a coverage named **WI_REGION.** The polygons (e.g. slides, slumps, burns) are aggregated into an ARC/INFO region. Associated National Application: NRIS Water Application
References:	Source of watershed restoration protocol: http://fsweb.nris.fs.fed.us/ftp/water/common_publications/wit_task_team_report.doc NRIS Water 1.2 User's Guide: http://fsweb.nris.fs.fed.us/ftp/water/v12/documentation/user_guide/TOC.pdf
Spatial Data Source:	Best available source with a target source scale of 1:24,000 for continental U.S., Puerto Rico, and Hawaii and 1:63,360 for Alaska.
Horizontal Accuracy:	Targeted to National Standard for Spatial Data Accuracy (NSSDA). Coverage target is double precision.
Projection:	Forest appropriate. A complete ARC/INFO projection file is required and projections must match other coverages used for NRIS Water.
Datum:	Forest appropriate. A complete ARC/INFO projection file is required. Must match other coverages used for NRIS Water.
Units of Measure:	Forest appropriate. A complete ARC/INFO projection file is required. Must match other coverages used for NRIS Water.
Feature Type:	Regions
Region System:	**Name:** WIAREA **Description**: Identifies and describes sites with needs for improvement within the watershed.

INFO Attribute Tables

wi_region.patwiarea

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC	ALTERNATE NAME	INDEXED?
1	*AREA*	*8*	*18*	*F*	*5*		-
9	*PERIMETER*	*8*	*18*	*F*	*5*		-
17	*WIAREA#*	*4*	*5*	*B*	-		-
21	*WIAREA-ID*	*4*	*5*	*B*	-		-
25	REGWI_CN	34	34	C	-		-
59	REGWI_ID	20	20	C	-		-

Domain for INFO tables, WI_REGION Layer	
ITEM NAME: Description	
Valid Values	**Value Description**
REGWI_CN: Unique, system generated control number associated with a Watershed Improvement record. Not null.	
Example: 100006301062	The value 1000063010624 is an Oracle generated control number. Not populated by the user.
REGWI_ID: User supplied identifier for the watershed improvement region area feature. The value should have meaning to the user for later identification of watershed improvement project areas.	
Example: BURN11	BURN11 identifies a watershed improvement site that has been determined by an administrative unit.

Oracle Views

NOTE: NRIS Water releases this view with release of version 1.2. Additional views to data contained in the NRIS Water module are being developed and will be incorporated into the standard through the update process.

nrw_reg_wi_vw

Description: Contains watershed improvement regions (group of polygons).

Name	Null?	Type
REGWI_CN	NOT NULL	VARCHAR2 (34)
REGWI_ID	NOT NULL	VARCHAR2 (100)
AREA_STND		NUMBER ()
AREA_UOMSTND		VARCHAR2 (15)
CREATED_BY	NOT NULL	VARCHAR2 (30)
CREATED_DATE	NOT NULL	DATE
CREATED_IN_INSTANCE	NOT NULL	NUMBER (6)
MODIFIED_BY		VARCHAR2 (30)
MODIFIED_DATE		DATE
MODIFIED_IN_INSTANCE		NUMBER (6)

Domain for Oracle views, Watershed Layer – coverage name: wi_region	
ITEM NAME: Description	
Valid Values	**Value Description**
AREA_STND: Value of area converted using the standard AREA_UOMSTND. This value is used in reports.	
Example: 1.387	The area is 1.387 hectares.
AREA_UOMSTND: Unit of measure used to convert the measured variable AREA_UOM.	
Ha	The unit of measure standard for watershed improvement regions is hectares.
CREATED_BY: Name of the person who created the record. Not null.	
Example: NHUBBARD	Nora Hubbard created this record
CREATED_DATE: Date record was created. Not null.	
Example: 29-JULY-2001	This record was created on July 29th, 2001.
CREATED_IN_INSTANCE: Identifies the Oracle instance in which the record was created. Not null.	
Example: 222222	The record was created in Oracle instance 222222.
MODIFIED_BY: Name of the person who last modified the record.	
Example: RSTEWART	Rod Stewart modified this record.
MODIFIED_DATE: Date record was last modified.	
Example: 20-JULY-2001	The last change modified this record on July 20th, 2001.
MODIFIED_IN_INSTANCE: Identifies the Oracle instance in which the record was modified.	
Example: 222222	The record was modified in Oracle instance 222222.
REGWI_CN: Unique, system generated control number. Not null.	
Example: 1000016222222	The value 1000016222222 is an Oracle generated control number identifying the WIAREA.
REGWI_ID: User provided identifier of a watershed improvement area. Not null.	
Example: BURN11	BURN11 identifies a watershed improvement site that has been determined by an administrative unit.