

Canada's National Forest Inventory
National Standard for Photo Plots

Data Dictionary

January 2, 2008
Version 4.2.4

Table of Contents

Canada's National Forest Inventory	1
National Standard for Photo Plots	1
Table of Contents	2
1. Objectives	3
2. Standards	3
3. NFI Data Model	3
TABLE RELATIONSHIPS	3
TABLE STRUCTURES	5
DATA DICTIONARY	10
1. NFI PHOTO PLOT	10
2. LANDUSE POLYGON	11
3. OWNERSHIP POLYGON	12
4. PROTECTION STATUS POLYGON	14
5. LAND COVER	15
6. EXOTICS HEADER INFORMATION	21
6a. EXOTICS TREE SPECIES INFORMATION	22
7. STAND LAYER HEADER INFORMATION	24
7a. STAND LAYER TREE SPECIES	28
7b. STAND LAYER ORIGIN	31
8. STAND LAYER TREATMENT	33
9. STAND LAYER DISTURBANCE	35
10. TREE POLYGON LEVEL SUMMARY	37
10a. TREE SPECIES COMPOSITION POLYGON LEVEL SUMMARY	38
10b. STAND ORIGIN POLYGON LEVEL SUMMARY	39
10c. STAND TREATMENT POLYGON LEVEL SUMMARY	41
10d. STAND DISTURBANCE POLYGON LEVEL SUMMARY	41
4. Changes/Updates From Version 4.2.3 to Version 4.2.4	43
5. Changes/Updates From Version 4.2.1 to Version 4.2.3	44
6. Changes/Updates From Version 4.1 to Version 4.2.1	45

1. Objectives

To provide a data model and data dictionary for NFI attributes from photo plots and to facilitate a standard input format for national compilation.

2. Standards

The attributes from photo polygons are interpreted and therefore are only estimates. The competence of the interpreter is important. The interpreter must perform sufficient ground checks of the area to be interpreted, to become familiar with the various forest conditions that will be encountered. Interpreters must be consistent and the work must be corrected with ground truthing.

The standards describe the acceptable tolerance for each attribute.

3. NFI Data Model

Table Relationships

NFI PHOTO PLOT (many)

|
|---> LANDUSE POLYGON (many within plot at many times)

|
|---> OWNERSHIP POLYGON (many within plot at many times)

|
|---> PROTECTION STATUS POLYGON (many within plot at many times)

|
|---> LAND COVER (many within plot at many times)

| ---> EXOTICS HEADER INFORMATION (many within polygon)

| ---> EXOTICS TREE SPECIES (many within the exotics)

| ---> STAND_LAYER HEADER INFORMATION (many within polygon)

| ---> STAND LAYER TREE SPECIES INFORMATION (many within layer)

| ---> STAND LAYER ORIGIN (many within layer)

| ---> STAND LAYER TREATMENT (many within layer)

| ---> STAND LAYER DISTURBANCE (many within layer)

|
|---> TREE POLYGON LEVEL SUMMARY (compiled)

|
|---> TREE SPECIES COMPOSITION POLYGON LEVEL SUMMARY (compiled)

|
|---> STAND ORIGIN POLYGON LEVEL SUMMARY (compiled)
|
|---> STAND TREATMENT POLYGON LEVEL SUMMARY (compiled)
|
|---> STAND DISTURBANCE POLYGON LEVEL SUMMARY (compiled)
|

Table Structures

1. NFI PHOTO PLOT

Field	Description (Units)	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	utm easting co-ordinate (m)	UTM_E	Num 6	N	Y
3	utm northing co-ordinate (m)	UTM_N	Num 7	N	Y
4	utm zone	UTM_ZONE	Num 2	N	Y
5	nominal plot size (ha)	NOMPLOT_SIZE	Dec 7.4	N	Y

2. LANDUSE POLYGON

Field	Description (Units)	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	polygon identifier	POLY_ID	Char 20	Y	Y
3	sampling date (yyyy-mon-dd)	SAMPLE_DATE	Date 11	Y	Y
4	land use number	LANDUSE_NUM	Num 1	Y	Y
5	date of information (yyyy-mon-dd)	INFO_DATE	Date 11	N	Y
6	source of information	INFO_SOURCE	Char 1	N	Y
7	land use area (ha)	POLY_AREA	Dec 7.4	N	Y
8	land use	LANDUSE	Char 4	N	Y

3. OWNERSHIP POLYGON

Field	Description (Units)	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	polygon identifier	POLY_ID	Char 20	Y	Y
3	sampling date (yyyy-mon-dd)	SAMPLE_DATE	Date 11	Y	Y
4	date of information (yyyy-mon-dd)	INFO_DATE	Date 11	N	Y
5	source of information	INFO_SOURCE	Char 1	N	Y
6	ownership area size (ha)	POLY_AREA	Dec 7.4	N	Y
7	owner	OWNERSHIP	Char 4	N	Y

4. PROTECTION STATUS POLYGON

Field	Description (Units)	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	polygon identifier	POLY_ID	Char 20	Y	Y
3	sampling date (yyyy-mon-dd)	SAMPLE_DATE	Date 11	Y	Y
4	date of information (yyyy-mon-dd)	INFO_DATE	Date 11	N	Y
5	source of information	INFO_SOURCE	Char 1	N	Y
6	protection area size (ha)	POLY_AREA	Dec 7.4	N	Y
7	protection status	STATUS	Num 1	N	Y

5. LAND COVER

Field	Description (Units)	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	polygon identifier	POLY_ID	Char 20	Y	Y
3	sampling date (yyyy-mon-dd)	SAMPLE_DATE	Date 11	Y	Y
4	date of information (yyyy-mon-dd)	INFO_DATE	Date 11	N	Y
5	source of information	INFO_SOURCE	Char 1	N	Y
6	modeled year (yyyy)	MODEL_YR	Num 4	N	N
7	polygon area	POLY_AREA	Dec 7.4	N	Y
8	land base	LAND_BASE	Char 1	N	Y
9	land cover	LAND_COVER	Char 1	N	Y
10	landscape position	LAND_POS	Char 1	N	Y
11	vegetation type	VEG_TYPE	Char 2	N	Y
12	density class	DENSITY_CL	Char 2	N	Y
13	stand structure	STAND_STRU	Char 4	N	N

6. EXOTICS HEADER INFORMATION

Field	Description (Units)	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	polygon identifier	POLY_ID	Char 20	Y	Y
3	sampling date (yyyy-mon-dd)	SAMPLE_DATE	Date 11	Y	Y
4	date of information (yyyy-mon-dd)	INFO_DATE	Date 11	N	Y
5	source of information	INFO_SOURCE	Char 1	N	Y
6	modeled year (yyyy)	MODEL_YR	Num 4	N	N

6a. EXOTICS TREE SPECIES INFORMATION

Field	Description (Units)	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	polygon identifier	POLY_ID	Char 20	Y	Y
3	sampling date (yyyy-mon-dd)	SAMPLE_DATE	Date 11	Y	Y
4	date of information (yyyy-mon-dd)	INFO_DATE	Date 11	N	Y
5	source of information	INFO_SOURCE	Char 1	N	Y
6	exotic tree genus	GENUS	Char 4	Y	Y
7	exotic tree species	SPECIES	Char 3	Y	Y
8	exotic tree variety	VARIETY	Char 3	Y	N
9	origin of exotics	ORIGIN	Char 3	Y	Y

7. STAND LAYER HEADER INFORMATION

Field	Description (Units)	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	polygon identifier	POLY_ID	Char 20	Y	Y
3	sampling date (yyyy-mon-dd)	SAMPLE_DATE	Date 11	Y	Y
4	date of information (yyyy-mon-dd)	INFO_DATE	Date 11	N	Y
5	source of information	INFO_SOURCE	Char 1	N	Y
6	modeled year	MODEL_YR	Num 4	N	N
7	layer identification	LAYER_ID	Num 2	N	Y
8	layer rank	LAYER_RK	Num 2	Y	Y

9	crown closure	CLOSURE	Num 3	N	Y
10	tree species criteria	LEAD_CRITR	Char 2	N	N
11	leading tree species age (years)	LEAD_SP_AGE	Num	N	N
12	age determination method	AGE_DETM	Char	N	Y
13	age definition	AGE_DEFN	Char	N	Y
14	total layer volume(m ³ /ha)	LAYER_VOL	Num	N	Y

7a. STAND LAYER TREE SPECIES INFORMATION

Field	Description (Units)	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	polygon identifier	POLY_ID	Char 20	Y	Y
3	layer rank	LAYER_RK	Num 2	Y	Y
4	sampling date (yyyy-mon-dd)	SAMPLE_DATE	Date 11	Y	Y
5	date of information (yyyy-mon-dd)	INFO_DATE	Date 11	N	Y
6	source of information	INFO_SOURCE	Char 1	N	Y
7	tree species number	SPECIES_NUM	Num 2	Y	Y
8	tree genus	GENUS	Char 4	N	Y
9	tree species	SPECIES	Char 3	N	Y
10	tree variety	VARIETY	Char 3	N	N
11	tree species percent (percent)	PERCENT	Dec 4.1	N	Y
12	tree height (m)	HEIGHT	Dec 4.1	N	Y
13*	age (years)	AGE	Num 4	N	N
14*	minimum age (years)	MIN_AGE	Num 4	N	N
15*	maximum age (years)	MAX_AGE	Num 4	N	N

* Either AGE or MIN_AGE AND MAX_AGE must be filled.

7b. STAND LAYER ORIGIN

Field	Description (Units)	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	polygon identifier	POLY_ID	Char 20	Y	Y
3	layer rank	LAYER_RK	Num 2	Y	Y
4	sampling date (yyyy-mon-dd)	SAMPLE_DATE	Date 11	Y	Y
5	date of information (yyyy-mon-dd)	INFO_DATE	Date 11	N	Y
6	source of information	INFO_SOURCE	Char 1	N	Y
7	vegetation cover origin	STAND_ORIG	Char 4	Y	Y
8	type of regeneration	REGEN_TYPE	Char 3	Y	Y
9	regeneration year (yyyy)	REGEN_YR	Num 4	Y	Y

8. STAND_LAYER_TREATMENT

Field	Description (Units)	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	polygon identifier	POLY_ID	Char 20	Y	Y
3	layer rank	LAYER_RK	Num 2	Y	Y
4	sampling date (yyyy-mon-dd)	SAMPLE_DATE	Date 11	Y	Y
5	date of information (yyyy-mon-dd)	INFO_DATE	Date 11	N	Y
6	source of information	INFO_SOURCE	Char 1	N	Y
7	treatment type	TREAT_TYPE	Char 2	Y	Y

8	treatment year (yyyy)	TREAT_YR	Num 4	Y	Y
9	treatment extent (percent)	TREAT_PERCT	Num 3	N	Y

9. STAND LAYER DISTURBANCE

Field	Description (Units)	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	polygon identifier	POLY_ID	Char 20	Y	Y
3	layer rank	LAYER_RK	Num 2	Y	Y
4	sampling date (yyyy-mon-dd)	SAMPLE_DATE	Date 11	Y	Y
5	date of information (yyyy-mon-dd)	INFO_DATE	Date 11	N	Y
6	source of information	INFO_SOURCE	Char 1	N	Y
7	natural disturbance agent	DIST_AGENT	Char 10	Y	Y
8	disturbance year (yyyy)	DIST_YR	Num 4	Y	Y
9	extent of disturbance (percent)	DIST_PERCT	Num 3	N	Y
10	extent of tree mortality (percent)	MORT_PERCT	Num 3	N	Y
11	mortality basis	MORT_BASIS	Char 2	N	N
12	specific disturbance agent	AGENT_TYPE	Char 50	N	N

10. TREE POLYGON LEVEL SUMMARY

Field	Description (Units)	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	polygon identifier	POLY_ID	Char 20	Y	Y
3	total tree volume, polygon-level (m ³ /ha)	VOL	Num 4	N	N
4	total tree biomass, polygon-level (tons/ha)	BIOMASS	Dec 9.2	N	N
5	crown closure (percent)	CLOSURE	Num 3	N	N
6	leading species age (years)	SITE_AGE	Num 4	N	N
7	leading species height (m)	SITE_HEIGHT	Dec 4.1	N	N
8	forest site quality (m)	SITE_INDEX	Dec 4.1	N	N

10a. TREE SPECIES COMPOSITION POLYGON LEVEL SUMMARY

Field	Description (Units)	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	polygon identifier	POLY_ID	Char 20	Y	Y
3	tree genus	GENUS	Char 4	N	Y
4	tree species	SPECIES	Char 3	N	Y
5	tree variety	VARIETY	Char 3	N	N
6	tree species percent (percent)	PERCENT	Num 3	N	Y

10b. STAND ORIGIN POLYGON LEVEL SUMMARY

Field	Description (Units)	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	polygon identifier	POLY_ID	Char 20	Y	Y
3	area with vegetation originating from aforestation (ha)	ORIG_AFOR	Dec 7.4	N	N
4	area with vegetation originating from secondary succession (ha)	ORIG_SUCC	Dec 7.4	N	N
5	area with vegetation originating after harvest (ha)	ORIG_HARV	Dec 7.4	N	N
6	area with vegetation originating after other disturbance (ha)	ORIG_DIST	Dec 7.4	N	N
7	area with vegetation originating from natural regeneration (ha)	REGEN_NAT	Dec 7.4	N	N
8	area with vegetation occurring from supplemental planting (ha)	REGEN_SUP	Dec 7.4	N	N

9	area with vegetation occurring from planting (ha)	REGEN_PLA	Dec 7.4	N	N
10	area with vegetation occurring from seeding (ha)	REGEN_SOW	Dec 7.4	N	N

10c. STAND TREATMENT POLYGON LEVEL SUMMARY

Field	Description (Units)	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	polygon identifier	POLY_ID	Char 20	Y	Y
3	treatment type	TREAT_TYPE	Char 2	Y	Y
4	treatment area (ha)	TREAT_AREA	Dec 7.4	N	Y

10d. STAND DISTURBANCE POLYGON LEVEL SUMMARY

Field	Description	Field Name	Format	Index	Not Null
1	network label	NFI_PLOT	Num 7	Y	Y
2	polygon identifier	POLY_ID	Char 20	Y	Y
3	disturbance agent	DIST_AGENT	Char 10	Y	Y
4	disturbance area	DIST_AREA	Dec 7.4	N	Y
5	extent of tree mortality	MORT_PERCT	Num 3	N	Y

Data Dictionary

Explanation of data formats:

- 'Num' indicates an integer format.
- 'Char' indicates a character format. Excess character spaces do not need to be filled in with blanks.

'Dec' indicates a decimal format where the first number denotes the width and the second number denotes the number of places in the decimal. An example of format 'Dec 6.2' would be 1234.56 (a six-digit value with a two-digit decimal place).

- 'Date' indicates a date format of YY-MON-DD where dashes must be included. For example, January 9, 2004 would be coded 04-JAN-09.

The attribute definitions within each data table are also listed in the same order as in the data model.

1. NFI PHOTO PLOT

Indexed attributes: NFI_PLOT.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7
Rule(s)	Must have value.

Attribute	UTM Easting Coordinate
Variable name	UTM_E
Description	The UTM easting that describes the center point location of a photo plot upon the national grid. The coordinate is measured and report to the nearest meter. Correct location on map or aerial photo must be within ± 40 m of the provided location.
Permitted values/range	250000 to 750000
Format	Num 6
Rule(s)	Must have value.

Attribute	UTM Northing Coordinate
Variable name	UTM_N
Description	The UTM northing coordinate that describes the center point location of a photo plot upon the national grid. The coordinate is measured and report to the nearest meter. Correct location on map or aerial photo must be within ± 40 m of the provided location.
Permitted values/range	4614000 to 9297000
Format	Num 7
Rule(s)	Must have value.

Attribute	UTM Zone
Variable name	UTM_Zone
Description	The UTM zone that the center point location of a photo plot upon the national grid falls into. Latitude in decimal degrees. Correct location on map or aerial photo must be within ± 40 m of the provided location.
Permitted values/range	7 to 22
Format	Num 2

Rule(s)	Must have value.
Attribute	Nominal plot size
Variable name	NOMPLOT_SIZE
Description	The nominal area of the plot in ha. Reported to the nearest 1/10000 ha (1 m ²).
Permitted values/range	100.0000 ha (1 km x 1 km) or 400.0000 ha (2 km x 2 km)
Format	Dec 7.4
Rule(s)	Must have a value.

2. LANDUSE POLYGON

Indexed attributes: NFI_PLOT, POLY_ID, SAMPLE_DATE, LANDUSE_NUM.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7
Rule(s)	Must have value.

Attribute	Polygon identifier
Variable name	POLY_ID
Description	The unique identifier assigned to each landuse polygon delineated on the photo plot. A combination of network label and polygon identifier. No duplicate polygon numbers are allowed.
Permitted values/range	
Format	Char 20
Rule(s)	Must have value.

Attribute	Sampling date
Variable name	SAMPLE_DATE
Description	The date the NFI sample plot was populated.
Permitted values/range	1995 to present
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. SAMPLE_DATE ≥ 1995-JAN-01 and SAMPLE_DATE ≤ Present Date

Attribute	Land use number
Variable name	LANDUSE_NUM
Description	Landuse identifier. LANDUSE_NUM=1 indicates primary landuse and LANDUSE_NUM=2 indicates secondary landuse.
Permitted values/range	1,2
Format	Num 1
Rule(s)	Must have value.

Attribute	Date of information
Variable name	INFO_DATE
Description	The date the image was taken (interpreted data) or the date the data was modeled to (modeled data).
Permitted values/range	1900 to present.
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. 1900-JAN-01 ≤ INFO_DATE ≤ SAMPLE_DATE

Attribute	Source of information
Variable name	INFO_SOURCE
Description	The source of information. The following codes must be used: I: Interpreted from aerial photography U: Updated from disturbance S: Data from ground survey O: Other
Permitted values/range	I, U, S, O
Format	Char 1
Rule(s)	Must have value.

Attribute	Landuse area
Variable name	POLY_AREA
Description	Area of landuse polygon in (ha) according to provincial guidelines or the following: the recommended minimum area for polygons is 0.5 hectares (5,000 square meters). The recommended minimum width for a polygon is 1 mm at photo scale. Individual polygon area to be accurate to the nearest 1/10000 of a hectare (a square meter). Sum of all polygons to equal area of plot. Must be identical to the spatial data polygon area.
Permitted values/range	0.0001 to 400.0400
Format	Dec 7.4
Rule(s)	Must have a value

Attribute	Land use
Variable name	LANDUSE
Description	Land-use classes provided in the <i>NFI Land Use Classification</i> . A 3 to 4 letter land use code will be used
Measurement criteria	Enter the 3-letter land use code followed by an optional modifier code, based on the land-use codes in the <i>NFI Land Use Classification</i> . For instances where more than one land use class is applicable, a primary or dominant land use category is specified followed by a secondary land use category and an optional modifier code. The primary land use is the overriding land use and must be listed first. For missing values use the following codes: M: out of province or out of country. S: missing data.
Permitted values/range	Refer to <i>NFI Land Use Classification</i> for codes or use M or S.
Format	Char 4
Rule(s)	Each landuse in the same polygon must be unique.

3. OWNERSHIP POLYGON

Indexed attributes: NFI_PLOT, POLY_ID, SAMPLE_DATE.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7
Rule(s)	Must have value.

Attribute	Polygon identifier
Variable name	POLY_ID

Description	The unique identifier assigned to each ownership polygon delineated on the photo plot. A combination of network label and polygon identifier. No duplicate polygon numbers are allowed.
Permitted values/range	
Format	Char 20
Rule(s)	Must have value.

Attribute	Sampling date
Variable name	SAMPLE_DATE
Description	The date the NFI sample plot was populated.
Permitted values/range	1995 to present
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. SAMPLE_DATE ≥ 1995-JAN-01 and SAMPLE_DATE ≤ Present Date

Attribute	Date of information
Variable name	INFO_DATE
Description	The date the image was taken (interpreted data) or the date the data was modeled to (modeled data).
Permitted values/range	1900 to present.
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. 1900-JAN-01 ≤ INFO_DATE ≤ SAMPLE_DATE

Attribute	Source of information
Variable name	INFO_SOURCE
Description	The source of information. The following codes must be used: I: Interpreted from aerial photography U: Updated from disturbance S: Data from ground survey O: Other
Permitted values/range	I, U, S, O
Format	Char 1
Rule(s)	Must have value.

Attribute	Ownership area
Variable name	POLY_AREA
Description	Area of ownership polygon in (ha) according to provincial guidelines or the recommended minimum area for polygons is 0.5 hectares (5,000 square meters). The recommended minimum width for a polygon is 1 mm at photo scale. Individual polygon area to be accurate to the nearest 1/10000 of a hectare (a square meter). Sum of all polygons to equal area of plot.
Permitted values/range	0.0001 to 400.0400
Format	Dec 7.4
Rule(s)	Must have a value

Attribute	Owner
Variable name	OWNERSHIP
Description	Ownership of the ground covered by the polygon. CL: Crown PR: Private FED: Federal TERR: Territories MUN: Municipal

	ABOR: Aboriginal M: out of province or out of country. S: missing data.
Permitted values/range	CL, PR, FED, TERR, MUN, ABOR, M, S.
Format	Char 4
Rule(s)	Must have value.

4. PROTECTION STATUS POLYGON

Indexed attributes: NFI_PLOT, POLY_ID, SAMPLE_DATE.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7
Rule(s)	Must have value.

Attribute	Polygon identifier
Variable name	POLY_ID
Description	The unique identifier assigned to each protection status polygon delineated on the photo plot. A combination of network label and polygon identifier. No duplicate polygon numbers are allowed.
Permitted values/range	
Format	Char 20
Rule(s)	Must have value.

Attribute	Sampling date
Variable name	SAMPLE_DATE
Description	The date the NFI sample plot was populated.
Permitted values/range	1995 to present
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. SAMPLE_DATE ≥ 1995-JAN-01 and SAMPLE_DATE ≤ Present Date

Attribute	Date of information
Variable name	INFO_DATE
Description	The date the image was taken (interpreted data) or the date the data was modeled to (modeled data).
Permitted values/range	1900 to present.
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. 1900-JAN-01 ≤ INFO_DATE ≤ SAMPLE_DATE

Attribute	Source of information
Variable name	INFO_SOURCE
Description	The source of information. The following codes must be used: I: Interpreted from aerial photography U: Updated from disturbance S: Data from ground survey O: Other
Permitted values/range	I, U, S, O
Format	Char 1

Attribute	Protection area size
Variable name	POLY_AREA
Description	Area of protection polygon in ha. Sum of all polygons to equal area of photo plot according to provincial guidelines or use the following: the recommended minimum area for polygons is 0.5 hectares (5,000 square meters). The recommended minimum width for a polygon is 1 mm at photo scale. Individual polygon area to be accurate to the nearest 1/10000 of a hectare.
Permitted values/range	0.0001 to 400.0400
Format	Dec 7.4
Rule(s)	Must have value.

Attribute	Protection status
Variable name	STATUS
Description	Polygon under some form of protection status. IUCN Categories I – VI. 0: Not protected (Non IUCN category) 1: Strict Nature Reserve: protected for science (IUCN category 1a). 2: Wilderness Area: protected for wilderness (IUCN category 1b). 3: National Park: for ecosystem protection and recreation. 4: Natural Monument: for conservation of specific natural features. 5: Habitat/Species Management Areas: for maintaining habitats. 6: Protected Landscape/Seascape: for conservation and recreation. 7: Managed Resource Protected Area: for sustainable use of natural ecosystems. 8: Out of Province/Territory 9: Out of country
Permitted values/range	0 to 9
Format	Num 1
Rule(s)	Must have value.

5. LAND COVER

Indexed attributes: NFI_PLOT, POLY_ID, SAMPLE_DATE.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7
Rule(s)	Must have value.

Attribute	Polygon identifier
Variable name	POLY_ID
Description	The unique identifier assigned to each land cover polygon delineated on the photo plot. A combination of network label and polygon identifier. No duplicate polygon numbers are allowed.
Permitted values/range	
Format	Char 20
Rule(s)	Must have value.

Attribute	Sampling date
Variable name	SAMPLE_DATE
Description	The date the NFI sample plot was populated.
Permitted values/range	1995 to present
Format	Date 11 [YYYY-MON-DD]

Rule(s)	Must have value. SAMPLE_DATE ≥ 1995-JAN-01 and SAMPLE_DATE ≤ Present Date
---------	--

Attribute	Date of information
Variable name	INFO_DATE
Description	The date the image was taken (interpreted data) or the date the data was modeled to (modeled data).
Permitted values/range	1900 to present.
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. 1900-JAN-01 ≤ INFO_DATE ≤ SAMPLE_DATE

Attribute	Source of information
Variable name	INFO_SOURCE
Description	The source of information. The following codes must be used: I: Interpreted from aerial photography U: Updated from disturbance S: Data from ground survey O: Other
Permitted values/range	I, U, S, O
Format	Char 1
Rule(s)	Must have value.

Attribute	Modeled year
Variable name	MODEL_YR
Description	The original year of information used to initiate the modeling, e.g. year of original interpretation, year of update. Represents an actual year. -1: Missing -9: Non-applicable.
Permitted values/range	1900 to presentm -1, -9.
Format	Num 4
Rule(s)	If INFO_SOURCE = 'M' then MODEL_YR must have a value and MODEL_YR ≤ year of the INFO_DATE. If INFO_SOURCE ≠ 'M' then MODEL_YR = -9. If INFO_SOURCE = 'M' then MODEL_YR = -1.

Attribute	Land cover area
Variable name	POLY_AREA
Description	Area of land cover polygon in (ha) according to provincial guidelines or the following: the recommended minimum area for polygons is 0.5 hectares (5,000 square meters). The recommended minimum width for a polygon is 1 mm at photo scale. Individual polygon area to be accurate to the nearest 1/10000 of a hectare (a square meter). Sum of all polygons to equal area of plot.
Permitted values/range	0.0001 to 400.0400
Format	Dec 7.4
Rule(s)	Must have a value

Attribute	Land base
Variable name	LAND_BASE

Description	A unique identification letter for the first level of the <i>NFI Land Cover Classification System</i> . This signifies the presence or absence of vegetation within the boundaries of a polygon. Indicated using the following codes: V: vegetated. N: non-vegetated M: unreported (this covers the condition where the sample overlaps into another country, territory or province, ocean) S: unreported (this covers the condition where data is missing)
Permitted values/range	V, N, M, S
Format	Char 1
Rule(s)	Must have a value. IF LAND_BASE = 'M' THEN LAND_COVER, LAND_POS='M' AND VEG_TYPE AND DENSITY_CL = 'MI'. IF LAND_BASE = 'S' THEN LAND_COVER, LAND_POS='S' AND VEG_TYPE AND DENSITY_CL = 'SA'.

Attribute	Landcover
Variable name	LAND_COVER
Description	A unique identification letter for the second level of the <i>NFI Land Cover Classification System</i> . This signifies the presence or absence of trees for vegetated polygons, and land or water for non-vegetated polygons. For vegetated polygons: Treed Non-treed For non-vegetated polygons: Land Water For unreported polygons: M: unreported (this covers the condition where the sample overlaps into another country, territory or province, ocean) S: unreported (this covers the condition where data is missing)
Permitted values/range	T, N, L, W, M, S
Format	Char 1
Rule(s)	Must have a value. IF LAND_BASE = 'V' THEN LAND_COVER = 'T' or 'N'; IF LAND_BASE = 'N', THEN LAND_COVER = 'L' or 'W'; IF LAND_BASE = 'M' THEN LAND_COVER, LAND_POS='M' AND VEG_TYPE AND DENSITY_CL = 'MI'. IF LAND_BASE = 'S' THEN LAND_COVER, LAND_POS='S' AND VEG_TYPE AND DENSITY_CL = 'SA'. IF LAND_COVER = 'T', then there must exist 1 or more entries in Stand Layer table and 1 or more entries for other Stand Layer tables. IF LAND_BASE = 'V' AND sum of CLOSURE for all layers \geq 10 THEN LAND_COVER = 'T'. IF LAND_BASE = 'V' AND sum of CLOSURE for all layers $<$ 10 THEN LAND_COVER = 'N'.

Attribute	Landscape position
Variable name	LAND_POS

Description	A unique identification letter for the third level of the <i>NFI Land Cover Classification System</i> . This signifies the location of the polygon relative to drainage. Wetland Upland Alpine For unreported: M: unreported (this covers the condition where the sample overlaps into another country, territory or province, ocean) S: unreported (this covers the condition where data is missing)
Permitted values/range	W, U, A, M, S
Format	Char 1
Rule(s)	Must have a value. IF LAND_BASE = 'M' THEN LAND_COVER, LAND_POS='M' AND VEG_TYPE AND DENSITY_CL = 'M'. IF LAND_BASE = 'S' THEN LAND_COVER, LAND_POS='S' AND VEG_TYPE AND DENSITY_CL = 'SA'. IF LAND_COVER = 'T', THEN LAND_POS ≠ 'A'.

Attribute	Vegetation type
Variable name	VEG_TYPE
Description	A unique identification letter for the fourth Level of the <i>NFI Land Cover Classification System</i> . This signifies the distinct type of vegetation or non-vegetated condition of the landbase within the polygon. Although there are no classes at this level of the Land Cover Classification System for water, a water code has been added to insure all polygons are classified and have a value. This attribute is relationally checked with ground plot tree species percent. <u>For vegetated, treed polygons:</u> TC: coniferous TB: broadleaf TM: mixed <u>For vegetated, non-treed polygons:</u> ST: shrub tall SL: shrub low HE: Herb HF: Herb Forb HG: Herb Graminoid . BY: Bryoid BM: Bryoid Moss BL: Bryoid Lichen. <u>For non-vegetated polygons:</u> SI: snow/ice RO: rock/rubble EL: exposed land <u>For water polygons:</u> WA: water <u>For unreported:</u> MI: unreported (this covers the condition where the sample overlaps into another country, territory or province, ocean) SA: unreported (this covers the condition where data is missing)
Permitted values/range	TC, TB, TM, ST, SL, HE, HF, HG, BY, BM, BL, SI, RO, EL, WA, MI, SA
Format	Char 2

Rule(s)	Must have value. IF LAND_COVER = 'T' THEN VEG_TYPE = 'TC', 'TB', OR 'TM'; IF LAND_COVER = 'N' THEN VEG_TYPE = 'ST', 'SL', 'HE', 'HF', 'HG', 'BY', 'BM', 'BL'; IF LAND_COVER = 'L' THEN VEG_TYPE = 'SI', 'RO', OR 'EL'; IF LAND_COVER = 'W' THEN VEG_TYPE = 'WA'. IF LAND_BASE = 'M' THEN LAND_COVER, LAND_POS='M' AND VEG_TYPE AND DENSITY_CL = 'M'. IF LAND_BASE = 'S' THEN LAND_COVER, LAND_POS='S' AND VEG_TYPE AND DENSITY_CL = 'SA'.
---------	---

Attribute	Density class
Variable name	DENSITY_CL
Description	<p>A unique identification letter for the fifth level of the <i>NFI Land Classification System</i>. This signifies the vegetation densities for vegetated polygons and a further classification of non-vegetated polygons.</p> <p><u>For vegetated polygons:</u> DE: Dense OP: Open (may apply to vegetated or bryoid polygons) SP: Sparse CL: Closed (only applies to bryoid polygons)</p> <p><u>For non-vegetated polygons:</u> <i>SI (Snow/Ice) from Level 4 is further classified:</i> GL: Glacier SC: Snow cover <i>RO (Rock/Rubble) from Level 4 is further classified:</i> BR: Bedrock RT: Rubble, talus, blockfield MS: Rubbly mine spoils LB: Lava bed <i>EL (Exposed Land) from Level 4 is further classified:</i> RS: River sediments ES: Exposed soil LS: Pond or lake sediments RM: Reservoir margin BE: Beach LL: Landing BU: Burned area RP: Road surface MU: Mudflat sediment CB: Cut bank MO: Moraine GP: Gravel pit TS: Tailings RR: Railway surface BP: Buildings and parking AP: Airport PM: Open Pit Mine OT: Other <i>WA (water) from Level 4 is further classified:</i> LA: Lake RE: Reservoir RI: River/Stream SW: Salt water SO: Shallow/open</p> <p><u>For unreported:</u> MI: unreported (this covers the condition where the sample overlaps into another country, territory or province, ocean) SA: unreported (this covers the condition where data is missing)</p>
Permitted values/range	DE, OP, SP, CL, GL, SC, BR, RT, MS, LB, RS, ES, LS, RM, BE, LL, BU, RP, MU, CB, MO, GP, TS, RR, BP, AP, PM, OT, LA, RE, RI, SW, SO, MI, SA <i>Note: OP has two definitions for open vegetated polygons depending on the cover type. Shrub, or herb cover is considered open between 26% and 60% crown closure whereas bryoid cover is considered open when crown closure is less than or equal to 50% of the polygon.</i>

Format	Char 2
Rule(s)	<p>Must have a value.</p> <p>If LAND_BASE = 'V' and LAND_COVER = 'N' and VEG_TYPE = 'SL', 'ST', 'HE', 'HF' or 'HG' then DENSITY_CL = 'DE', 'OP', 'SP' or 'SA'.</p> <p>If LAND_BASE = 'V' and LAND_COVER = 'N' and VEG_TYPE = 'BY', 'BM', or 'BL' then DENSITY_CL = 'CL', 'OP' or 'SA'.</p> <p>IF VEG_TYPE = 'SI' THEN DENSITY_CL = 'GL', 'SC';</p> <p>IF VEG_TYPE = 'RO' THEN DENSITY_CL = 'BR', 'RT', 'MS', 'LB';</p> <p>IF VEG_TYPE = 'EL' THEN DENSITY_CL = 'RS', 'ES', 'LS', 'RM', 'BE', 'LL', 'BU', 'RP', 'MU', 'CB', 'MO', 'GP', 'TS', 'RR', 'BP', 'AP', 'PM', 'OT';</p> <p>IF VEG_TYPE = 'WA' THEN DENSITY_CL = 'LA', 'RE', 'RI', 'SW' or 'SO'.</p> <p>IF LAND_BASE = 'M' THEN LAND_COVER, LAND_POS='M' AND VEG_TYPE AND DENSITY_CL = 'M'.</p> <p>IF LAND_BASE = 'S' THEN LAND_COVER, LAND_POS='S' AND VEG_TYPE AND DENSITY_CL = 'SA'.</p>

Attribute	Stand structure
Variable name	STAND_STRU
Description	<p>The structure of the prevailing forest cover in the polygon (if treed).</p> <p>SNGL: Single storied.</p> <p>MULT: Two or more distinct canopy layers.</p> <p>COMP: Complex, non-distinct layers.</p> <p>UNKN: Stand structure unknown.</p> <p>NA: Non-applicable.</p> <p>M: unreported (this covers the condition where the sample overlaps into another country, territory or province, ocean)</p> <p>S: unreported (this covers the condition where data is missing)</p>
Permitted values/range	SNGL, MULT, COMP, UNKN, NA, M, or S
Format	Char 4
Rule(s)	<p>Must have value.</p> <p>If LAND_COVER = 'T' then STAND_STRU = 'SNGL', 'MULT' or 'COMP';</p> <p>If LAND_COVER = 'N' or LAND_BASE = 'N' then STAND_STRU = 'NA';</p> <p>If LAND_COVER = 'M' or LAND_BASE = 'M' then STAND_STRU = 'M';</p> <p>If LAND_COVER = 'S' or LAND_BASE = 'S' then STAND_STRU = 'S'.</p>

6. EXOTICS HEADER INFORMATION

Indexed variables: NFI_PLOT, POLY_ID, SAMPLE_DATE.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7
Rule(s)	Must have value.

Attribute	Polygon identifier
Variable name	POLY_ID
Description	The unique identifier assigned to each land cover polygon delineated on the photo plot. A combination of network label and polygon identifier. No duplicate polygon numbers are allowed.
Permitted values/range	
Format	Char 20
Rule(s)	Must have value.

Attribute	Sampling date
Variable name	SAMPLE_DATE
Description	The date the NFI sample plot was populated.
Permitted values/range	1995 to present
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. SAMPLE_DATE ≥ 1995-JAN-01 and SAMPLE_DATE ≤ Present Date

Attribute	Date of information
Variable name	INFO_DATE
Description	The date the image was taken (interpreted data) or the date the data was modeled to (modeled data).
Permitted values/range	1900 to present.
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. 1900-JAN-01 ≤ INFO_DATE ≤ SAMPLE_DATE

Attribute	Source of information
Variable name	INFO_SOURCE
Description	The source of information. I: Interpreted from aerial photography U: Updated from disturbance records M: Modeled S: Data from ground survey O: Other
Permitted values/range	I, U, M, S, O
Format	Char 1
Rule	Must have value. Associated record in Exotics Tree Species must exist.

Attribute	Modeled Year
Variable name	MODEL_YR
Description	The year used to initiate the modeling. -1: Missing. -9: Non-applicable.
Permitted values/range	1900 to present, -1, -9.
Format	Num 4
Rule(s)	IF INFO_SOURCE = 'M' THEN MODEL_YR must have value; MODEL_YR ≤ Year of the INFO_DATE; Associated record in Exotics Tree Species must exist. If INFO_SOURCE ≠ 'M' then MODEL_YR = -9.

6a. EXOTICS TREE SPECIES INFORMATION

Indexed attributes: NFI_PLOT, POLY_ID, SAMPLE_DATE, GENUS, SPECIES, VARIETY, ORIGIN.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7

Rule(s)	Must have value.
Attribute	Polygon identifier
Variable name	POLY_ID
Description	The unique identifier assigned to each land cover polygon delineated on the photo plot. A combination of network label and polygon identifier. No duplicate polygon numbers are allowed.
Permitted values/range	
Format	Char 20
Rule(s)	Must have value.

Attribute	Sampling date
Variable name	SAMPLE_DATE
Description	The date the NFI sample plot was populated.
Permitted values/range	1995 to present
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. SAMPLE_DATE ≥ 1995-JAN-01 and SAMPLE_DATE ≤ Present Date

Attribute	Date of information
Variable name	INFO_DATE
Description	The date the image was taken (interpreted data) or the date the data was modeled to (modeled data).
Permitted values/range	1900 to present.
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. 1900-JAN-01 ≤ INFO_DATE ≤ SAMPLE_DATE

Attribute	Source of information
Variable name	INFO_SOURCE
Description	The source of information. I: Interpreted from aerial photography U: Updated from disturbance records M: Modeled S: Data from ground survey O: Other
Permitted values/range	I, U, M, S, O
Format	Char 1
Rule	Must have value. Associated record in exotics header information must exist.

Attribute	Exotic tree genus
Variable name	GENUS
Description	Tree genus that are outside of their natural vegetation zone, area or region. This also includes non-local seed sources. A list of exotic tree genus is listed in section 3 (Exotics) of <i>NFI Tree List</i> , but could also include any tree genus listed in section 1 or 2 (of the tree list), if the trees are exotic to the plot location.
Permitted values/range	Refer to <i>NFI Tree List</i> for the valid combinations of genus/species/variety codes.
Format	Char 4
Rule(s)	Must have value.

Attribute	Exotic tree species
Variable name	SPECIES

Description	Tree species that are outside of their natural vegetation zone, area or region. This also includes non-local seed sources. Exotic tree species could include those listed in section 3 (Exotics) of <i>NFI Tree List</i> , but could also include any tree species listed in section 1 or 2 (of the tree list), if the trees are exotic to the plot location.
Permitted values/range	Refer to <i>NFI Tree List</i> for the valid combinations of genus/species/variety codes.
Format	Char 3
Rule(s)	Must have value.

Attribute	Exotic tree sub-species
Variable name	VARIETY
Description	Tree sub-species that are outside of their natural vegetation zone, area or region. This also includes non-local seed sources. Exotic tree sub-species includes those listed in section 3 (of <i>NFI Tree List</i>) but could also include any tree sub-species listed in section 1 or 2, if the trees are exotic to the plot location.
Permitted values/range	Refer to <i>NFI Tree List</i> for the valid combinations of genus/species/variety
Format	Char 3
Rule(s)	If VARIETY has value THEN GENUS and SPECIES must have value, otherwise may be blank.

Attribute	Origin of exotics
Variable name	ORIGIN
Description	Origin of exotic tree species and non-local provenances.
Permitted values/range	The provinces and territories will use their two-letter variable names and countries will use their internet country domain name preceded by a period (e.g., BC, AB, SK, .CA).
Format	Char 3
Rule(s)	Must have value.

7. STAND LAYER HEADER INFORMATION

Indexed attributes: NFI_PLOT, POLY_ID, SAMPLE_DATE, LAYER_RK.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7
Rule(s)	Must have value.

Attribute	Polygon identifier
Variable name	POLY_ID
Description	The unique identifier assigned to each land cover polygon delineated on the photo plot. A combination of network label and polygon identifier. No duplicate polygon numbers are allowed.
Permitted values/range	
Format	Char 20
Rule(s)	Must have value.

Attribute	Sampling date
Variable name	SAMPLE_DATE
Description	The date the NFI sample plot was populated.
Permitted values/range	1995 to present
Format	Date 11 [YYYY-MON-DD]

Rule(s)	Must have value. SAMPLE_DATE ≥ 1995-JAN-01 and SAMPLE_DATE ≤ Present Date
---------	--

Attribute	Date of information
Variable name	INFO_DATE
Description	The date the image was taken (interpreted data) or the date the data was modeled to (modeled data).
Permitted values/range	1900 to present.
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. 1900-JAN-01 ≤ INFO_DATE ≤ SAMPLE_DATE

Attribute	Source of information
Variable name	INFO_SOURCE
Description	The source of information: I: Interpreted from aerial photography U: Updated from disturbance records M: Modeled S: Data from ground survey O: Other
Permitted values/range	I, U, M, S, O
Format	Char 1
Rule(s)	Must have value. Associated record in Exotics Tree Species must exist.

Attribute	Modeled year
Variable name	MODEL_YR
Description	The year used to initiate the modeling (e.g. the year the original aerial photography was acquired). -1: Missing. -9 Non-applicable.
Permitted values/range	1900 to present, -1, -9.
Format	Num 4
Rule(s)	If INFO_SOURCE = 'M' then MODEL_YR must have a value and MODEL_YR ≤ year of INFO_DATE. If INFO_SOURCE ≠ 'M' then MODEL_YR = -9. Must have value.

Attribute	Layer identification
Variable name	LAYER_ID
Description	A number that identifies the vegetation layer being described in a stand.
Permitted values/range	1 to 10
Format	Num 2
Rule(s)	LAND_BASE must = 'V'. IF LAYER_ID > 1, THEN STAND_STRU ≠ 'SNGL'. Must have value.

Attribute	Layer rank
Variable name	LAYER_RK
Description	The rank of the layer in terms of dominance. Rank 1 is the most dominant.
Permitted values/range	1 to 10
Format	Num 2
Rule(s)	IF STAND_STRU = 'SNGL' THEN LAYER_ID = 1 AND LAYER_RK = 1 and no more records should be allowed entry; Must have value.

Attribute	Crown closure
-----------	---------------

Variable name	CLOSURE
Description	The percentage of ground area covered by the vertical projection of tree crown areas. Crown closure of the layer in percent.
Permitted values/range	1 to 100
Format	Num 3
Rule(s)	IF STAND_STR = 'SNGL' THEN CLOSURE ≥ 10 AND LAYER_RK = 1. Must have value.

Attribute	Tree species criteria
Variable name	LEAD_CRITR
Description	Quantitative criteria used to rank species occurrence: CA: Crown area. VL: Volume. BA: Basal area. CT: Stem numbers Blank (may apply to vegetated, non-treed)
Permitted values/range	CA, VL, BA, CT or blank
Format	Char 2
Rule(s)	IF LAND_COVER = 'T' THEN LEAD_CRITR must have value.

Attribute	Leading tree species age
Variable name	LEAD_SP_AGE
Description	Leading tree species age in the layer -1: Missing. -9: Non-applicable (may apply to vegetated, non-treed conditions).
Permitted values/range	0 to 9999, -1, -9.
Format	Num 4
Rule(s)	Must have value.

Attribute	Age determination
Variable name	AGE_DETM
Description	Method used to determine age: CAL: Calculated OCC: Photo interpreted estimate REC: Management records GND: Ground plot data OTH: Other historic evidence
Permitted values/range	CAL, OCC, REC, GND, OTH
Format	Char 3
Rule(s)	It must have value if there is an associated record in Stand Layer Tree Species which age, or min_age and max_age have values.

Attribute	Age definition
Variable name	AGE_DEFN
Description	Definition of age: ABH: Age at breast height. AFS: Age from seed. AES: Age from establishment
Permitted values/range	ABH, AFS, AES
Format	Char 3
Rule(s)	It must have value if there is an associated record in Stand Layer Tree Species which age, or min_age and max_age have values.

Attribute	Total layer volume
-----------	--------------------

Variable name	LAYER_VOL
Description	Total volume in m ³ per hectares for all trees (>1.3m tall). Zero volume is only allowed where trees ≤ 1.3 m tall. Volume inside bark of the main stem, including stump and top as well as dead and decayed wood. Includes dead windfalls (with roots attached) that are also CWD. Derived from photo estimates of species, height, basal area, etc. or appropriate volume equations/models. Can use relationship from ground plots to determine volume of smaller trees and windfalls. Report volume to the nearest 1 m ³ /ha. -1: Missing.
Permitted values/range	0 to 9999, -1.
Format	Num 4
Rule(s)	IF LAND_COVER = T THEN LAYER_VOL ≥ 0. Must have value.

Formatted: Font color: Blue

7a. STAND LAYER TREE SPECIES

Indexed attributes: NFI_PLOT, POLY_ID, LAYER_RK, SAMPLE_DATE, SPECIES_NUM.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7
Rule(s)	Must have value.

Attribute	Polygon identifier
Variable name	POLY_ID
Description	The unique identifier assigned to each land cover polygon delineated on the photo plot. A combination of network label and polygon identifier. No duplicate polygon numbers are allowed.
Permitted values/range	
Format	Char 20
Rule(s)	Must have value.

Attribute	Layer rank
Variable name	LAYER_RK
Description	The rank of the layer in terms of dominance. Rank 1 is the most dominant.
Permitted values/range	1 to 10
Format	Num 2
Rule(s)	IF STAND_STRU = 'SNGL' THEN LAYER_ID = 1 AND LAYER_RK = 1 and no more records should be allowed entry; Must have value.

Attribute	Sampling date
Variable name	SAMPLE_DATE
Description	The date the NFI sample plot was populated.
Permitted values/range	1995 to present
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. SAMPLE_DATE ≥ 1995-JAN-01 and SAMPLE_DATE ≤ Present Date

Attribute	Date of information
Variable name	INFO_DATE

Description	The date the image was taken (interpreted data) or the date the data was modeled to (modeled data).
Permitted values/range	1900 to present.
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. 1900-JAN-01 ≤ INFO_DATE ≤ SAMPLE_DATE

Attribute	Source of information
Variable name	INFO_SOURCE
Description	The source of information: I: Interpreted from aerial photography U: Updated from disturbance records. M: Modeled S: Data from ground survey O: Other
Permitted values/range	I, U, M, S, O
Format	Char 1
Rule(s)	Must have value.

Attribute	Tree species number
Variable name	SPECIES_NUM
Description	Identifies species rank in the layer: 1: Largest tree species percent value in the layer 10: Smallest tree species percent value in the layer
Permitted values/range	1-10
Format	Num 2
Rule(s)	SPECIES_NUM must be in consecutive ascending order starting from 1. IF there is an entry which SPECIES_NUM>1, then there must have an entry which has SPECIES_NUM-1. Must have value.

Attribute	Tree genus
Variable name	GENUS
Description	For the purposes of this inventory attribute, a tree is defined as a woody plant, usually with a single stem and a definite crown that is capable of reaching a mature height of 5 m somewhere within its natural range. Use the first 4 letters of the scientific genus name. If unknown conifer use GENC, if unknown hardwood use GENH.
Permitted values/range	Refer to <i>NFI Tree List</i> for the valid combinations of genus/species/variety
Format	Char 4
Rule(s)	Must have value.

Attribute	Tree species
Variable name	SPECIES
Description	For the purposes of this inventory attribute, a tree is defined as a woody plant, usually with a single stem and a definite crown, which is capable of reaching a mature height of 5 m somewhere within its natural range. Use the first 3 letters of the scientific species name. If unknown, use code SPP.
Permitted values/range	Refer to <i>NFI Tree List</i> for the valid combinations of genus/species/variety
Format	Char 3
Rule(s)	Must have value.

Attribute	Tree variety
Variable name	VARIETY

Description	For the purposes of this inventory attribute, a tree is defined as a woody plant, usually with a single stem and a definite crown that is capable of reaching a mature height of 5 m somewhere within its natural range. Use the first 3 letters of the scientific subspecies name.
Permitted values/range	Refer to <i>NFI Tree List</i> for the valid combinations of genus/species/variety
Format	Char 3
Rule(s)	May be blank if there is no variety.

Attribute	Tree species percent
Variable name	PERCENT
Description	Percentage of species in the polygon by layer. Record to the nearest percent or tenth of a percent.
Permitted values/range	0.1 to 100.0
Format	Dec 4.1
Rule(s)	Must have value. Sum of tree species percent inside polygon (by layer) = 100. Ranges: SPECIES_NUM=1, 10.0 <= PERCENT <= 100.0 SPECIES_NUM=2, 0.1 <= PERCENT <= 50.0 SPECIES_NUM=3, 0.1 <= PERCENT <= 33.0 SPECIES_NUM=4, 0.1 <= PERCENT <= 25.0 SPECIES_NUM=5, 0.1 <= PERCENT <= 20.0 SPECIES_NUM=6, 0.1 <= PERCENT <= 16.0 SPECIES_NUM=7, 0.1 <= PERCENT <= 14.0 SPECIES_NUM=8, 0.1 <= PERCENT <= 12.0 SPECIES_NUM=9, 0.1 <= PERCENT <= 11.0 SPECIES_NUM=10, 0.1 <= PERCENT <= 10.0 The percent of each species must be greater than or equal to the next species (by species number).

Attribute	Tree height
Variable name	HEIGHT
Description	The average height by species. Recorded to the nearest 0.1 m.
Permitted values/range	0.1 to 999.9
Format	Dec 4.1
Rule(s)	Must have value. Must fall within specified ranges.

Attribute	Age
Variable name	AGE
Description	The average age of the species in the layer (maximum of 10). Age is determined using local procedures. Sources could include ground plot data, ocular estimate, management records, or other historic evidence. Recorded to the nearest year. Age is estimated for each species in each layer.
Permitted values/range	1 to 9999.
Format	Num 4
Rule(s)	Can be blank if and only if (MIN_AGE and MAX_AGE) both have values. Must have value if and only if (MIN_AGE and MAX_AGE) are both null.

Attribute	Minimum Age
Variable name	MIN_AGE
Description	The minimum age of the species in the polygon layer. Minimum age is indicated by entering the age interval (minimum and maximum). Estimate minimum age of the species for each polygon layer.

Permitted values/range	1 to 9999.
Format	Num 4
Rule(s)	IF MIN_AGE has value, MAX_AGE must have value MIN_AGE <= MAX_AGE Must be blank if AGE has value.

Attribute	Maximum age
Variable name	MAX_AGE
Description	The maximum age of the species in the polygon layer. Maximum age is indicated by entering the age interval (minimum and maximum). Estimate maximum age of the species for each polygon layer.
Permitted values/range	1 to 9999.
Format	Num 4
Rule(s)	IF MAX_AGE has value, MIN_AGE must have value MAX_AGE >= MIN_AGE Must be blank if AGE has value.

7b. STAND LAYER ORIGIN

Indexed attributes: NFI_PLOT, POLY_ID, LAYER_RK, SAMPLE_DATE, STAND_ORIG, REGEN_TYPE, REGEN_YR.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7
Rule(s)	Must have value.

Attribute	Polygon identifier
Variable name	POLY_ID
Description	The unique identifier assigned to each land cover polygon delineated on the photo plot. A combination of network label and polygon identifier. No duplicate polygon numbers are allowed.
Permitted values/range	
Format	Char 20
Rule(s)	Must have value.

Attribute	Layer rank
Variable name	LAYER_RK
Description	The rank of the layer in terms of dominance. Rank 1 is the most dominant.
Permitted values/range	1 to 10
Format	Num 2
Rule(s)	IF STAND_STRU = 'SNGL' THEN LAYER_ID = 1 AND LAYER_RK = 1 and no more records should be allowed entry; Must have value.

Attribute	Sampling date
Variable name	SAMPLE_DATE
Description	The date the NFI sample plot was populated.
Permitted values/range	1995 to present
Format	Date 11 [YYYY-MON-DD]

Rule(s)	Must have value. SAMPLE_DATE ≥ 1995-JAN-01 and SAMPLE_DATE ≤ Present Date
---------	--

Attribute	Date of information
Variable name	INFO_DATE
Description	The date the image was taken (interpreted data) or the date the data was modeled to (modeled data).
Permitted values/range	1900 to present.
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. 1900-JAN-01 ≤ INFO_DATE ≤ SAMPLE_DATE

Attribute	Source of information
Variable name	INFO_SOURCE
Description	The source of information: I: Interpreted from aerial photography U: Updated from disturbance records. M: Modeled S: Data from ground survey O: Other
Permitted values/range	I, U, M, S, O
Format	Char 1
Rule(s)	Must have value.

Attribute	Vegetation cover origin
Variable name	STAND_ORIG
Description	Origin of the vegetation cover in the layer: SUCC: The establishment of trees through secondary succession. HARV: Regeneration after harvest. DIST: Regeneration after other disturbance. AFOR: Aforestation – The establishment of trees on an area that has lacked forest cover for some time or has never been forested. UNKN: Unknown vegetation cover origin.
Permitted values/range	HARV, DIST, AFOR, SUCC, UNKN.
Format	Char 4
Rule(s)	Must have value.

Attribute	Type of regeneration
Variable name	REGEN_TYPE
Description	The continuous renewal of a forest stand (i.e., establishment of new young trees) by natural or artificial means: NAT: Natural regeneration. SUP: Natural regeneration with supplementary planting (<50%). PLA: Planted regeneration. SOW: Seeded regeneration.
Permitted values/range	NAT, SUP, PLA, SOW
Format	Char 3
Rule(s)	Must have value.

Attribute	Regeneration year
Variable name	REGEN_YR
Description	An estimate of the year of regeneration in the polygon layer. Regeneration year must be related to tree cover origin. -1: Missing.

Permitted values/range	1400 to present year, -1.
Format	Num 4 [YYYY]
Rule(s)	Must have value. REGEN_YR + [MAX (AGE (m) OR MAX_AGE (m)) of stand layer tree species] ≤ year of SAMPLE_DATE. * (m) stands for all species under the same stand layer e.g. all stand layer tree species records which belongs to the same stand layer.

8. STAND LAYER TREATMENT

Indexed attributes: NFI_PLOT, POLY_ID, LAYER_RK, SAMPLE_DATE, TREAT_TYPE, TREAT_YR.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7
Rule(s)	Must have value.

Attribute	Polygon identifier
Variable name	POLY_ID
Description	The unique identifier assigned to each land cover polygon delineated on the photo plot. A combination of network label and polygon identifier. No duplicate polygon numbers are allowed.
Permitted values/range	
Format	Char 20
Rule(s)	Must have value.

Attribute	Layer rank
Variable name	LAYER_RK
Description	The rank of the layer in terms of dominance. Rank 1 is the most dominant.
Permitted values/range	1 to 10
Format	Num 2
Rule(s)	IF STAND_STRU = 'SNGL' THEN LAYER_ID = 1 AND LAYER_RK = 1 and no more records should be allowed entry; Must have value.

Attribute	Sampling date
Variable name	SAMPLE_DATE
Description	The date the NFI sample plot was populated.
Permitted values/range	1995 to present
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. SAMPLE_DATE ≥ 1995-JAN-01 and SAMPLE_DATE ≤ Present Date

Attribute	Date of information
Variable name	INFO_DATE
Description	The date the image was taken (interpreted data) or the date the data was modeled to (modeled data).
Permitted values/range	1900 to present.
Format	Date 11 [YYYY-MON-DD]

Rule(s)	Must have value. 1900-JAN-01 ≤ INFO_DATE ≤ SAMPLE_DATE
---------	---

Attribute	Source of information
Variable name	INFO_SOURCE
Description	The source of information: I: Interpreted from aerial photography U: Updated from disturbance records. M: Modeled S: Data from ground survey O: Other
Permitted values/range	I, U, M, S, O
Format	Char 1
Rule(s)	Must have value.

Attribute	Treatment type
Variable name	TREAT_TYPE
Description	An activity or treatment that occurred in the specific layer of a forest stand: CC: Stand has been harvested in full (>80% by crown area of the previous forest cover has been removed). PC: Stand has been harvested in part (<80% by crown area of the previous forest cover remains). DC: Deforestation CL: Cleaning, including brushing and weeding. SP: Juvenile spacing – altering the number of stems in the stand. PR: Pruning PT: Pre-commercial thinning – reduction of number of stems to increase spacing. CT: Commercial thinning – partial cut in older immature stands. FT: Fertilization MP: Mechanical site preparation PB: Prescribed burning OT: Other
Permitted values/range	CC, PC, DC, CL, SP, PR, PT, CT, FT, MP, PB, OT
Format	Char 2
Rule(s)	Must have value.

Attribute	Treatment year
Variable name	TREAT_YR
Description	An estimate of the year of treatment. Treatment year must be related to treatment. -1: Missing.
Permitted values/range	Up to present, -1.
Format	Num 4 [YYYY]
Rule(s)	Must have value. PRESENT YEAR ≥ TREAT_YR > 1800. INFO_DATE >= TREAT_YR >= 1800

Formatted: Font color: Blue

Attribute	Treatment extent
Variable name	TREAT_PERCT
Description	Extent of treatment expressed as a percent of area.
Permitted values/range	1 to 100
Format	Num 3
Rule(s)	Must have value.

9. STAND LAYER DISTURBANCE

Indexed attributes: NFI_PLOT, POLY_ID, LAYER_RK, SAMPLE_DATE, DIST_AGENT, DIST_YR.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7
Rule(s)	Must have value.

Attribute	Polygon identifier
Variable name	POLY_ID
Description	The unique identifier assigned to each land cover polygon delineated on the photo plot. A combination of network label and polygon identifier. No duplicate polygon numbers are allowed.
Permitted values/range	
Format	Char 20
Rule(s)	Must have value.

Attribute	Layer rank
Variable name	LAYER_RK
Description	The rank of the layer in terms of dominance. Rank 1 is the most dominant.
Permitted values/range	1 to 10
Format	Num 2
Rule(s)	IF STAND_STRU = 'SNGL' THEN LAYER_ID = 1 AND LAYER_RK = 1 and no more records should be allowed entry; Must have value.

Attribute	Sampling date
Variable name	SAMPLE_DATE
Description	The date the NFI sample plot was populated.
Permitted values/range	1995 to present
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. SAMPLE_DATE ≥ 1995-JAN-01 and SAMPLE_DATE ≤ Present Date

Attribute	Date of information
Variable name	INFO_DATE
Description	The date the image was taken (interpreted data) or the date the data was modeled to (modeled data).
Permitted values/range	1900 to present.
Format	Date 11 [YYYY-MON-DD]
Rule(s)	Must have value. 1900-JAN-01 ≤ INFO_DATE ≤ SAMPLE_DATE

Attribute	Source of information
Variable name	INFO_SOURCE
Description	The source of information: I: Interpreted from aerial photography U: Updated from disturbance records. M: Modeled

	S: Data from ground survey O: Other
Permitted values/range	I, U, M, S, O
Format	Char 1
Rule(s)	Must have value.

Attribute	Natural disturbance agent
Variable name	DIST_AGENT
Description	Agents of natural disturbance: Fire: Layer has experienced a significant fire. Wind: Vegetation in layer has experienced wind throw. Snow: Vegetation in layer has experienced significant snow damage. Insect: Vegetation in layer has experienced significant insect attack. (Note: It can take several years of defoliation to do permanent damage to a tree. The threshold for significant defoliation varies with pest). Disease: Vegetation in plot has experienced a significant disease outbreak. Erosion: The wearing away of soil by any natural process that causes a significant removal of tree cover over a large area. Ice: Vegetation in layer has experienced ice damage. Other: Layer has experienced other disturbances. Replace other by a word that better describes the type of disturbance agent (e.g., flooding).
Permitted values/range	Fire, Wind, Snow, Insect, Disease, Erosion, Ice, Other
Format	Char 10
Rule(s)	Must have value.

Attribute	Disturbance year
Variable name	DIST_YR
Description	An estimate of the year of the disturbance. Disturbance year must be related to disturbance agent. -1: Missing.
Permitted values/range	Up to the year of the SAMPLE_DATE, -1.
Format	Num 4 [YYYY]
Rule(s)	Must have value. DIST_YR <= Year of SAMPLE_DATE INFO_DATE >= DIST_YR

Formatted: Font color: Blue

Formatted: Font color: Blue

Attribute	Extent of disturbance
Variable name	DIST_PERCT
Description	Disturbance: a discreet force that has caused significant change in structure and/or composition of the forest polygon (e.g. a change resulting in the normal growth pattern of the forest being significantly reduced). Extent of disturbance measured in percentage of area.
Permitted values/range	1 to 100
Format	Num 3
Rule(s)	Must have value.

Attribute	Extent of tree mortality
Variable name	MORT_PERCT
Description	Extent of tree mortality, within disturbed area, in percent.
Permitted values/range	0 to 100
Format	Num 3
Rule(s)	Must have value

Attribute	Mortality basis
-----------	-----------------

Variable name	MORT_BASIS
Description	Basis for mortality extent: VL: Volume BA: Basal area CA: Crown area ST: Stem numbers AR: Area
Permitted values/range	VL, BA, CA, ST, AR
Format	Char 2
Rule(s)	Must have value if MORT_PERCT > 0. Blank if MORT_PERCT = 0

Attribute	Specific disturbance agent
Variable name	AGENT_TYPE
Description	Significant event affecting more than 0.5 hectare in the polygon layer. Name of suspected disturbance agent (eg. Armillaria, spruce budworm) Specific erosion agents include: Natural erosion caused by soil instability. Erosion caused by surface water runoff. Erosion caused by avalanche. Erosion caused by harvesting operations (including roads). Erosion caused by heavy equipment traffic. Erosion caused by road construction (other than harvest roads). Erosion caused by mining. Erosion caused by forest fire. Erosion caused by wind. Other causes of erosion or cause not understood.
Permitted values/range	A field for comments
Format	Char 50
Rule(s)	Could be blank.

10. TREE POLYGON LEVEL SUMMARY

Indexed attributes: NFI_PLOT, POLY_ID.

*Note: this is an office-compiled table.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7
Rule(s)	Must have value.

Attribute	Polygon identifier
Variable name	POLY_ID
Description	The unique identifier assigned to each land cover polygon delineated on the photo plot. A combination of network label and polygon identifier. No duplicate polygon numbers are allowed.
Permitted values/range	
Format	Char 20
Rule(s)	Must have value.

Attribute	Total volume for all trees of a polygon
Variable name	VOL

Description	Total volume for all trees >1.3 m tall (m ³ /ha). Volume inside bark of the main stem, including stump and top as well as dead and decayed wood. Includes dead windfalls (with roots attached) that are also CWD.
Permitted values/range	0 to 9999
Format	Num 4

Attribute	Total biomass for all trees of a polygon
Variable name	BIOMASS
Description	Total biomass for all trees >1.3m tall (tons/ha). Biomass includes bark, main stem, stump and top (oven-dry tons/ha). This attribute is not photo interpreted; it is derived from the biomass project subroutine models.
Permitted values/range	0 to 9999999.99
Format	Dec 9.2

Attribute	Percentage of ground area covered
Variable name	CLOSURE
Description	The percentage of ground area within a polygon covered by the vertical projection of tree crown areas (percent).
Permitted values/range	10 to 100
Format	Num 3

Attribute	Age of the leading species
Variable name	SITE_AGE
Description	The age of the leading species in the polygon, corresponding to layer rank = 1. Reported in years.
Permitted values/range	1 to 9999
Format	Num 4

Attribute	Height of the leading species
Variable name	SITE_HEIGHT
Description	The height of the leading species in the polygon, corresponding to layer rank=1. Reported in m.
Permitted values/range	0.1 to 999.9
Format	Dec 4.1

Attribute	Expression of forest site quality
Variable name	SITE_INDEX
Description	An expression of forest site quality based on the height, at a base age of 50 years, of the dominant and codominant trees (site trees). Expressed in m.
Permitted values/range	
Format	

10a. TREE SPECIES COMPOSITION POLYGON LEVEL SUMMARY

Indexed attributes: NFI_PLOT, POLY_ID.

*Note: office-compiled table.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7

Rule(s)	Must have value.
Attribute	Polygon identifier
Variable name	POLY_ID
Description	The unique identifier assigned to each land cover polygon delineated on the photo plot. A combination of network label and polygon identifier. No duplicate polygon numbers are allowed.
Permitted values/range	
Format	Char 20
Rule(s)	Must have value.

Attribute	Tree genus
Variable name	GENUS
Description	For the purposes of this inventory attribute, a tree is defined as a woody plant, usually with a single stem and a definite crown that is capable of reaching a mature height of 5 m somewhere within its natural range. Trees are listed, with the genus, species, and subspecies being described.
Permitted values/range	Refer to <i>NFI Tree List</i> for the valid combinations of genus\species\variety
Format	Char 4

Attribute	Tree species
Variable name	SPECIES
Description	For the purposes of this inventory attribute, a tree is defined as a woody plant, usually with a single stem and a definite crown, which is capable of reaching a mature height of 5 m somewhere within its natural range.
Permitted values/range	Refer to <i>NFI Tree List</i> for the valid combinations of genus\species\variety
Format	Char 3

Attribute	Tree variety
Variable name	VARIETY
Description	For the purposes of this inventory attribute, a tree is defined as a woody plant, usually with a single stem and a definite crown that is capable of reaching a mature height of 5 m somewhere within its natural range.
Permitted values/range	Refer to <i>NFI Tree List</i> for the valid combinations of genus\species\variety
Format	Char 3

Attribute	Tree species percent
Variable name	PERCENT
Description	Percentage of the species in the polygon determined by quantitative criteria used to rank species occurrence.
Permitted values/range	1 to 100
Format	Num 3

10b. STAND ORIGIN POLYGON LEVEL SUMMARY

Indexed attributes: NFI_PLOT, POLY_ID.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7
Rule(s)	Must have value.

Attribute	Polygon identifier
Variable name	POLY_ID
Description	The unique identifier assigned to each land cover polygon delineated on the photo plot. A combination of network label and polygon identifier. No duplicate polygon numbers are allowed.
Permitted values/range	
Format	Char 20
Rule(s)	Must have value.

Attribute	Area with vegetation originating from aforestation
Variable name	ORIG_AFOR
Description	Area with vegetation originating from aforestation (ha)
Permitted values/range	0 to 400.0000
Format	Dec 7.4

Attribute	Area with vegetation originating from secondary succession (ha)
Variable name	ORIG_SUCC
Description	Area with vegetation originating from secondary succession (ha)
Permitted values/range	0 to 400.0000
Format	Dec 7.4

Attribute	Area with vegetation originating after harvest (ha)
Variable name	ORIG_HARV
Description	Area with vegetation originating after harvest (ha)
Permitted values/range	0 to 400.0000
Format	Dec 7.4

Attribute	Area with vegetation originating after other disturbance (ha)
Variable name	ORIG_DIST
Description	Area with vegetation originating after other disturbance (ha)
Permitted values/range	0 to 400.0000
Format	Dec 7.4

Attribute	Area with vegetation regenerated through natural regeneration (ha)
Variable name	REGEN_NAT
Description	Area with vegetation regenerated through natural regeneration (ha)
Permitted values/range	0 to 400.0000
Format	Dec 7.4

Attribute	Area with vegetation regenerated through natural regeneration with supplemental planting (ha)
Variable name	REGEN_SUP
Description	Area with vegetation regenerated through natural regeneration with supplemental planting (ha)
Permitted values/range	0 to 400.0000
Format	Dec 7.4

Attribute	Area with vegetation regenerated through planting (ha)
Variable name	REGEN_PLA
Description	Area with vegetation regenerated through planting (ha)
Permitted values/range	0 to 400.0000
Format	Dec 7.4

Attribute	Area with vegetation regenerated through seeding (ha)
Variable name	REGEN_SOW
Description	Area with vegetation regenerated through seeding (ha)
Permitted values/range	0 to 400.0000
Format	Dec 7.4

10c. STAND TREATMENT POLYGON LEVEL SUMMARY

Indexed attributes: NFI_PLOT, POLY_ID.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7
Rule(s)	Must have value.

Attribute	Polygon identifier
Variable name	POLY_ID
Description	The unique identifier assigned to each land cover polygon delineated on the photo plot. A combination of network label and polygon identifier. No duplicate polygon numbers are allowed.
Permitted values/range	
Format	Char 20
Rule(s)	Must have value.

Attribute	Treatment type
Variable name	TREAT_TYPE
Description	An activity or treatment that occurred in the polygon.
Permitted values/range	CC, PC, DC, CL, SP, PR, PT, CT, FT, MP, PB, OT.
Format	Char 2

Attribute	Treatment area
Variable name	TREAT_AREA
Description	The treatment area in the polygon.
Permitted values/range	000.0000 to 400.0000
Format	Dec 7.4

10d. STAND DISTURBANCE POLYGON LEVEL SUMMARY

Indexed attributes: NFI_PLOT, POLY_ID.

Attribute	Network label
Variable name	NFI_PLOT
Description	The numeric National Forest Inventory label that identifies the point on the network associated with the photo plot. The NFI project office will provide network labels.
Permitted values/range	1 to 1600000
Format	Num 7
Rule(s)	Must have value.

Attribute	Polygon identifier
Variable name	POLY_ID

Description	The unique identifier assigned to each land cover polygon delineated on the photo plot. A combination of network label and polygon identifier. No duplicate polygon numbers are allowed.
Permitted values/range	
Format	Char 20
Rule(s)	Must have value.

Attribute	Natural disturbance agent
Variable name	DIST_AGENT
Description	<p>Fire: Layer has experienced a significant fire.</p> <p>Wind: Vegetation in layer has experienced wind throw.</p> <p>Snow: Vegetation in layer has experienced significant snow damage.</p> <p>Insect: Vegetation in layer has experienced significant insect attack. (Note: It can take several years of defoliation to do permanent damage to a tree. The threshold for significant defoliation varies with pest).</p> <p>Disease: Vegetation in plot has experienced a significant disease outbreak.</p> <p>Erosion: The wearing away of soil by any natural process that causes a significant removal of tree cover over a large area.</p> <p>Ice: Vegetation in layer has experienced ice damage.</p> <p>Other: Layer has experienced other disturbances. Replace other by a word that better describes the type of disturbance agent (e.g., flooding).</p>
Permitted values/range	Fire, Wind, Snow, Insect, Disease, Erosion, Ice Other.
Format	Char 10

Attribute	Disturbance area
Variable name	DIST_AREA
Description	Area (ha) summary of the disturbance.
Permitted values/range	000.0000 to 400.0000
Format	Dec 7.4

Attribute	Extent of tree mortality
Variable name	MORT_PERCT
Description	Extent of tree mortality within the polygon, in percent.
Permitted values/range	0 to 100
Format	Num 3

4. Changes/Updates From Version 4.2.3 to Version 4.2.4

Table	Attribute	Change	Comment
Table 4: Protection status	POLY_ID	Updated description to replace "landuse" with "protection status"	
Table 5: Land cover	STAND_STRU	M: unreported (this covers the condition where the sample overlaps into another country, territory or province, or ocean), S: unreported (this covers the condition where data is missing)	Added codes.
Table 6: Exotics header	ORIGIN	Added a period to the country code: "country domain name preceded by a period (e.g., BC, AB, SK, CA)."	
Table 7a: Stand layer tree species	PERCENT	Added "or tenth of a percent" to the description. Also correspondingly modified the Rules so that the ranges included the decimal place.	Changed data structure.
	AGE	Changed the Rules to make them clearer (and correct): Can be blank if and only if (MIN_AGE and MAX_AGE) both have values; Must have value if and only if (MIN_AGE and MAX_AGE) are both null.	
	MIN_AGE	Change Rule wording "Must be blank if AGE has value."	
	MAX_AGE	Change Rule wording "Must be blank if AGE has value."	
Table 9: Stand layer disturbance	DIST_YR	Added Rule: INFO_DATE >= DIST_YR	Added rule.

← Formatted: Bullets and Numbering

5. Changes/Updates From Version 4.2.1 to Version 4.2.3

Table	Attribute	Change	Comment
Table 2 – Table 9	SAMPLE_DATE	Updated definition of sample date, "The date the NFI sample plot was populated."	
Table 5. Land cover	MODEL_YR STAND_STRU	-1: Missing, -9: Non-applicable NA: Non-applicable, UNKN: unknown	Added codes.
	STAND_STRU	Added/modified rules: If LAND_COVER = 'T' then STAND_STRU = 'SNGL', 'MULT' or 'COMP'; If LAND_COVER = 'N' or LAND_BASE = 'N' then STAND_STRU = 'NA'; If LAND_COVER = 'M' or LAND_BASE = 'M' then STAND_STRU = 'M'; If LAND_COVER = 'S' or LAND_BASE = 'S' then STAND_STRU = 'S'.	
Table 6. Exotics header	MODEL_YR	-1: Missing, -9: Non-applicable	Added codes.
Table 7. Stand layer header	MODEL_YR LEAD_SP_AGE LAYER_VOL	-1: Missing, -9: Non-applicable -1: Missing, -9: Non-applicable -1: Missing	Added codes.
	<u>LAYER_VOL</u>	Added to description: <u>Zero volume is only allowed where trees ≤ 1.3 m tall.</u>	
Table 7b. Stand layer origin	STAND_ORIG REGEN_YR	UNKN: Unknown -1: Missing	Added codes.
	TREAT_YR	-1: Missing	Added code.
Table 8. Stand layer treatment	<u>TREAT_YR</u>	Added rule: <u>INFO_DATE >= TREAT_YR >= 1800.</u>	
	DIST_YR	-1: Missing	Added code.
Tables: 3, 4, 5, 6, 6a, 7, 7a, 7b, 8, and 9.	INFO_DATE INFO_SOURCE and POLY_AREA	Repeated and indexed attributes have full attribute descriptions for each table.	
Table 7c to 10d.		Renumbered tables from 7c onwards. Stand layer treatment and stand layer disturbance are now at the same level as stand layer header (see p. 3).	This change was made in order to accommodate clear cut stands with no stand layer header, tree species, or origin information.
Tables: 2 – 9.	INFO_DATE	Updated definition of date of information, "The date the image was taken (interpreted data); the date the data was modeled to (modeled data).	Added clarification of definition.

← Formatted: Bullets and Numbering

6. Changes/Updates From Version 4.1 to Version 4.2.1

Table	Attribute	Change	Comment
1. NFI photo plot	CALCPLOT_SIZE	Removed this attribute.	This attribute will be compiled and maintained internally. It will be checked in the spatial data.
2. Landuse poly	POLY_AREA	Permitted values/range = 0.0000 to 400.0400 ha.	Minimum POLY_AREA set to 0.0 ha to accommodate very small polygons resulting from data drilling exercise. Maximum POLY_AREA set to 400.04 ha to account for the area tolerance.
3. Ownership			
4. Protection status poly			
5. Land cover			
6a. Exotics tree species info.	GENUS, SPECIES, VARIETY, ORIGIN	Index = 'Y'.	
7. Stand layer header info.	LEAD_CRITR	Not Null = 'N'.	
7a. Stand layer tree species info.	SPECIES_NUM	Index = 'Y'.	
	PERCENT	Format = Dec 4.1	
7b. Stand layer origin	INFO_DATE, INFO_SOURCE	Index = 'N'.	
7c. Stand layer treatment	INFO_DATE, INFO_SOURCE	Index = 'N'.	
8. Polygon level summaries		Changed the structure of the polygon-level summary tables.	
2. Land use, 3. Ownership, 4. Protection, 5. Land cover	POLY_AREA	Rule removed: POLY_AREA ≤ CALCPLOT_SIZE	This rule was removed in response to the removal of the attribute CALCPLOT_SIZE.