Oregon/Washington Bureau of Land Management

Northern Spotted Owl

Spatial Data Standard

Photo of a Northern Spotted Owl at the Medford BLM District. Photo taken by Kyle Sullivan, BLM, May 4, 2021.

Document Revisions

Revision	Date	Author	Description	Affected Pages
1.0	12/29/2022	Dana Baker-Allum and NSO data standard team	Initial Release	All

Navigation

This document uses hyperlinks to display additional information on topics. External links are displayed with an underline.

Internal links are blue text, not underlined. After clicking on an internal link, press the Alt 

+ Left Arrow  keys to return to the original location from the target location.

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1 General Information

The Northern Spotted Owl (NSO) data standard documents how spatial location and information about inventory and monitoring activities for Northern Spotted Owls is stored. This dataset is a replacement of the former Northern Spotted Owl database. BLM wildlife biologists and GIS specialists enter and query data that was collected by district staff or contractors. The dataset includes four spatial feature classes and four non-spatial tables to support the following data collection:

NSO_SITE_PT - Site Points. Stores location and information about sites. There are three types of sites within the NSO dataset: a spotted owl site with a designated master site number (MSNO), spotted owl site not related to a known site (TSNO), and barred owl sites (BSNO).

NSO_VISIT_TBL - Visit Table. Contains the data recorded during a survey visit to a site or calling station.

NSO_OWL_OBS_PT - Owl Observation Points. Contains location and attributes for observations of owls.

NSO_NEST_TREE_PT - Nest Tree Points. This feature class contains basic location information and monitoring information on individual nest trees.

NSO_STATION_PT - Station Points. Location and attributes for fixed calling stations or automated recorder unit (ARU) deployment locations.

NSO_RESPONSE_TBL - Response Table. Contains attributes describing start and end times at specific call stations or Automated Recording Unit (ARU) deployment locations and any responses received during the call station visit or ARU deployment.

NSO_SITE_NBR_TBL - Site Number Table. This table records all MSNO, TSNO, and BSNO site numbers with their district owner and location name. This editable table is used to derive the site number domains (dom_NSO_BSNO, dom_NSO_MSNO, and dom_NSO_TSNO). *Note: only district or regional stewards can edit the MSNO and TSNO numbers. BSNO numbers and attributes may not be edited, they may only be marked as available or not available.*

NSO_SUMMARY_TBL - Summary Table. This table contains the annual assessment of owl activity for a given year, which has been observed at a given spotted owl site. Data may be entered manually into this dataset or be generated using an automated process.

For more information on how these data objects are related to each other, see Appendix B NSO Entity Relationship Overview.

- Dataset (Theme) Name: NSO
- Dataset (Feature Class): NSO_NEST_TREE_PT, NSO_OWL_OBS_PT, NSO_SITE_PT, NSO_STATION_PT
- Dataset (Table): NSO_RESPONSE_TBL, NSO_SITE_NBR_TBL, NSO_SUMMARY_TBL, NSO_VISIT_TBL

1.1 Roles and Responsibilities

Table 1 Roles and Responsibilities

Roles	Responsibilities
State Data Steward	The State Data Steward responsibilities include approving data standards and business rules, developing Quality Assurance/Quality Control procedures, identifying potential Privacy issues, and managing that data as a corporate resource. The State Data Steward coordinates with field office data stewards, the State Data Administrator, Geographic Information System (GIS) coordinators, and national data stewards. The State Data Steward reviews geospatial metadata

	for completeness and quality.
GIS Technical Lead	The GIS Technical Lead works with data stewards to convert business needs into GIS applications and derive data requirements and participates in the development of data standards. The GIS technical lead coordinates with system administrators and GIS coordinators to manage the GIS databases. The GIS technical lead works with data editors to ensure the consistency and accordance with the established data standards of data input into the enterprise Spatial Database Engine (SDE) geodatabase. The GIS technical lead provides technical assistance and advice on GIS analysis, query, and display of the dataset.
State Data Administrator	The State Data Administrator provides information management leadership, data modeling expertise, and custodianship of the state data models. The State Data Administrator ensures compliance with defined processes for development of data standards and metadata, and process consistency and completeness. The State Data Administrator is responsible for making data standards and metadata accessible to all users. The State Data Administrator coordinates with data stewards and GIS coordinators to respond to national spatial data requests.
State FOIA/Privacy Act Team Lead	The State FOIA/Privacy Act Team Lead assists the state data steward to identify any privacy issues related to spatial data. The State FOIA/Privacy Act team lead also provides direction and guidance on data release, fees, and classification under the appropriate Freedom of Information Act exemption.
State Records Administrator	The State Records Administrator classifies data under the proper records retention schedule.

1.2 FOIA Category

These data fall under the standard Records Access Category 1B - BLM Records that may contain protected information that must be considered for segregation prior to release. See Section 8 Publication Views for more information on which data are available to the public.

1.3 Records Retention Schedule

The DRS/GRS/BLM Combined Records Schedule, under Schedule **20/52a6** (Electronic Records/Geographic Information Systems), lists this theme, **Species Specific Information**, as one of the system-centric themes that are significant for BLM's mission that must be permanently retained.

"PERMANENT. Cutoff at the end of each Fiscal Year (FY) or when significant changes and additions have been made, before and after the change. Use BLM 20/52a. Transfer to the National Archives every three years after cutoff. Under the instruction in 36 CFR 1235.44-50 or whichever guidance is in place at the time of the transfer. Submissions are full datasets and are in addition to, not replacements of, earlier submissions."

Oregon/Washington (OR/WA) Bureau of Land Management (BLM) Guidebook for Management of Geospatial Data (v1) Section 15.2 - Corporate Data Online Archives prescribes:

Vector annual archives are retained online for 12 years. Each year, data that has reached 12 years old is copied off-line to be retained until no longer needed (determined by data stewards and program leads) with format and readability maintained in a five (5) year "tech refresh" update cycle."

1.4 Security/Access/Sensitivity

The **Northern Spotted Owl** theme does not require any additional security other than that provided by the General Support System (the hardware/software infrastructure of the OR/WA BLM).

This dataset is sensitive and there are restrictions on access to this data, either from within the BLM or external to the BLM. This dataset falls under the standard Records Access Category 1B - BLM Records that may contain protected information that must be considered for segregation prior to release. Data objects and attributes available for public release are described in Section 8 Publication Views.

There are no privacy issues or concerns associated with these data themes. A privacy impact assessment was signed for this dataset on 11/30/2022.

1.5 Keywords

Keywords that can be used to locate this dataset include:

- BLM Thesaurus: Endangered, Wildlife, Geospatial, primaryData
- Additional keywords: Northern Spotted Owl, Barred Owl, Nest Sites
- ISO Thesaurus: biota

1.6 Subject Function Codes

BLM Subject Function codes used to describe this dataset include:

- 1283 - Data Administration
- 6500 - Wildlife Management
- 6800 - Wildlife Population Management
- 9167 - Geographic Information System (GIS)

2 Dataset Overview

2.1 Usage

This dataset is used to document BLM Northern Spotted Owl (*Strix occidentalis caurina*) sites, inventory, monitoring, observations, and nest trees for use in NEPA analysis, ESA consultation for BLM actions, and conservation planning strategies. This dataset can be used to track the status of the species through time (trend). The dataset is an important resource for historic, current, and potential habitat for where this species may or may not occur within the region. Data collected and retained in the NSO dataset follows guidelines outlined in the *Revised Protocol for Surveying Proposed Management Activities that may Impact Northern Spotted Owls* (USDI Fish and Wildlife Service, 2012) or the *Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls Using Autonomous Recording Unit Methods - Draft Pilot Version 0.1 for 2021 Season Testing* (USDI Fish and Wildlife Service, 2021).

NSO data is often requested, and a limited publication dataset is available to download on the BLM public web. More detailed data can be shared with other federal agencies and state government agencies as well as a variety of requesting non-government organizations, interested parties, and the public through various data sharing agreements.

NSO editors include BLM wildlife biologists, technicians, and GIS staff in western Oregon. Districts that contribute to, and utilize this dataset, include the Coos Bay, Medford, Northwest Oregon, Roseburg, and the Klamath Falls Field Office of the Lakeview District. Data are entered into the database for all projects and monitoring as they occur on BLM lands, and annually by March 1st of each year. Managers, planners and other specialists can view and query the dataset through publication datasets described in Section 8 of this document.

2.2 Sponsor/Affected Parties

The sponsor for this dataset is the Deputy Director for the Division of Resources, Lands, and Minerals.

Affected parties include U.S. Fish and Wildlife Service (FWS), U.S. Forest Service, Oregon Department of Fish and Wildlife (ODFW), and Oregon Department of Forestry (ODF).

2.3 Relationship to Other Datasets, Databases, or Files

This dataset is located within the Oregon Data Framework (ODF) within the Resources section under Species Occurrences and within the Activities section under Surveys. The dataset includes several affiliations and relationships with other datasets within the Oregon Data Framework:

- **Botany and Wildlife Observations and Surveys:** This dataset is often used in conjunction with the NSO dataset to inform and document species locations in support of National Environmental Policy Act (NEPA) evaluation of proposed federal actions. Project scoping, surveys, and Endangered Species Act consultation will also use data housed in both datasets, depending on the project and scope. Occasionally, when Threatened, Endangered, and Sensitive Species that are tracked in the Botany and Wildlife Observations and Surveys dataset are documented during NSO surveys, they are documented in the Botany and Wildlife Observations and Surveys dataset.
- **Micro*Storms:** This is inherently affiliated with the Forestry database, Micro*Storms, which includes a Vegetation Publication (forest_MicroStorms_veg_pub.gdb). Often, the Forest Operations Inventory (FOI) Vegetation Publication dataset polygons or Harvest Treatment polygons are used to define survey areas, especially on O&C lands in Western Oregon. Stand age and other stand exam data within FOI may play a role in where surveys are performed and help describe the amount of suitable habitat surrounding NSO sites.
- **Master Site Number Database:** The Statewide Coordinated Master Site Numbering System for the Northern Spotted Owl was initiated in 1984 by the Oregon Department of Fish and Wildlife (ODFW). As part of the effort to formalize a single numeric data system for keeping track of spotted owl sites, the BLM,

USFS, and USFWS agreed to formally adopt the MSNO system. New MSNO numbers are requested through the MSNO database statewide coordinator. At the time of publication of this document, the coordinator is: Steve Ackers, Oregon Cooperative Fish and Wildlife Research Unit, ackerss@oregonstate.edu.

- **Northern Spotted Owl Critical Habitat Units:** Critical habitat constitutes areas considered essential for the conservation of a listed species. These areas provide notice to the public and land managers of the importance of the areas to the conservation of the species. This data is provided by the US Fish and Wildlife Service and is appended to the publication dataset.
- **Ownership:** NSO records may spatially occur on and off BLM ownership. Ownership of the sites is recorded in the LAND_OWNR attribute. Updates to the corporate ownership data may result in updates needed to this attribute.

2.4 Data Category/Architecture Link

This data theme is a portion of the Oregon Data Framework (ODF) shown in Figure 1, Oregon Data Framework (ODF) Overview on page 9. The illustration is a simplified schematic of the entire ODF showing the overall organization and entity inheritance. The ODF utilizes the concept of inheritance to define specific instances of data. The ODF divides all OR/WA resource-related data into three general categories:

- Activities
- Resources
- Boundaries

These general categories are broken into sub-categories that inherit spatial characteristics and attributes from their parent category. These sub-categories may be further broken into more specific groups until the basic dataset cannot be further sub-divided. Those basic datasets inherit all characteristics of all groups/categories above them. The basic datasets are where physical data gets populated. Those groups/categories above them do not contain actual data but set parameters which all data of that type must follow.

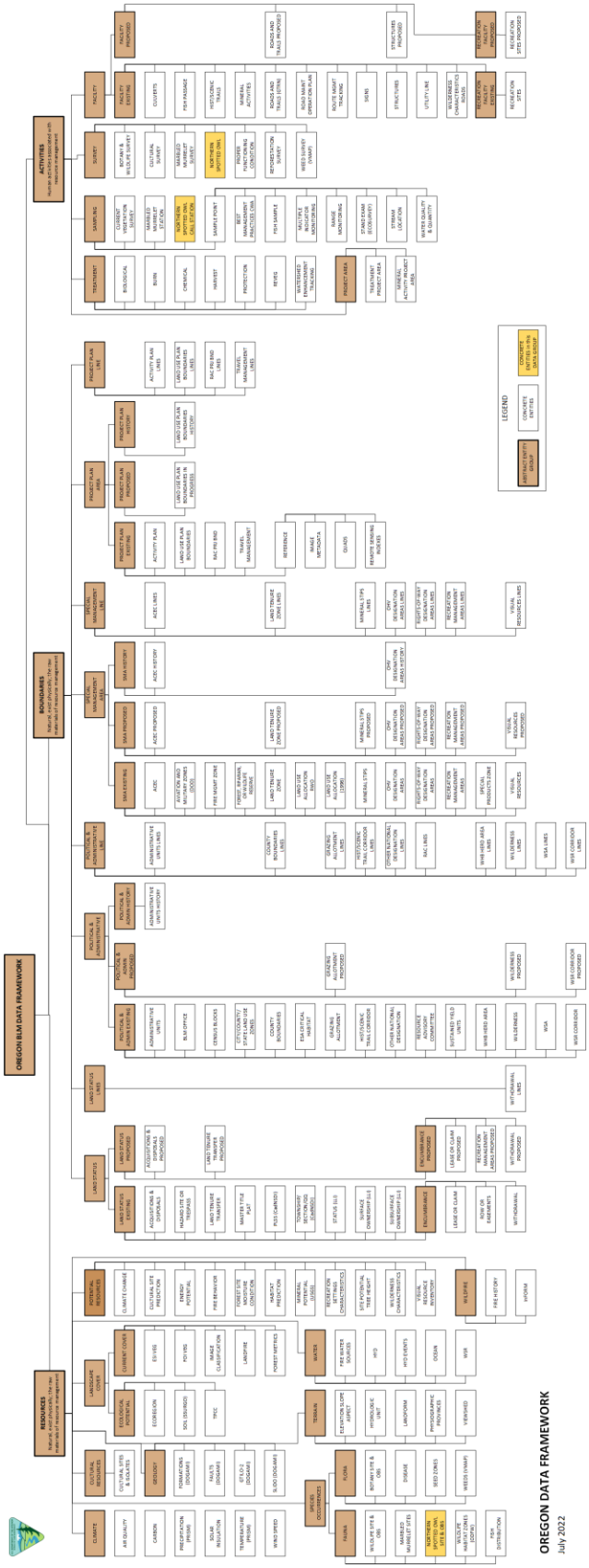


Figure 1 **Oregon Data Framework Overview**

Physical data is populated in the basic datasets. Those groups/categories above them do not contain actual data but set parameters that all data of that type must follow. See Figure 2, Data Organization Structure, for a simplified schematic of the entire ODF showing the overall organization and entity inheritance. The NSO entities are highlighted. For additional information about the ODF, contact the State Data Administrator. The State Data Administrator's contact information can be found at the following link: https://www.blm.gov/about/data/oregon-data-management.

In the ODF, NSO dataset is considered a Resource and as an Activity and categorized as follows:

ODF

- Activities
  - Survey
    - NSO_VISIT_TBL
    - NSO_RESPONSE_TBL
  - Sampling
    - NSO_STATION_PT
- Resources
  - Species Occurrences
    - Fauna
      - NSO_SITE_PT
      - NSO_OWL_OBS_PT
      - NSO_NEST_TREE_PT
      - NSO_SUMMARY_TBL

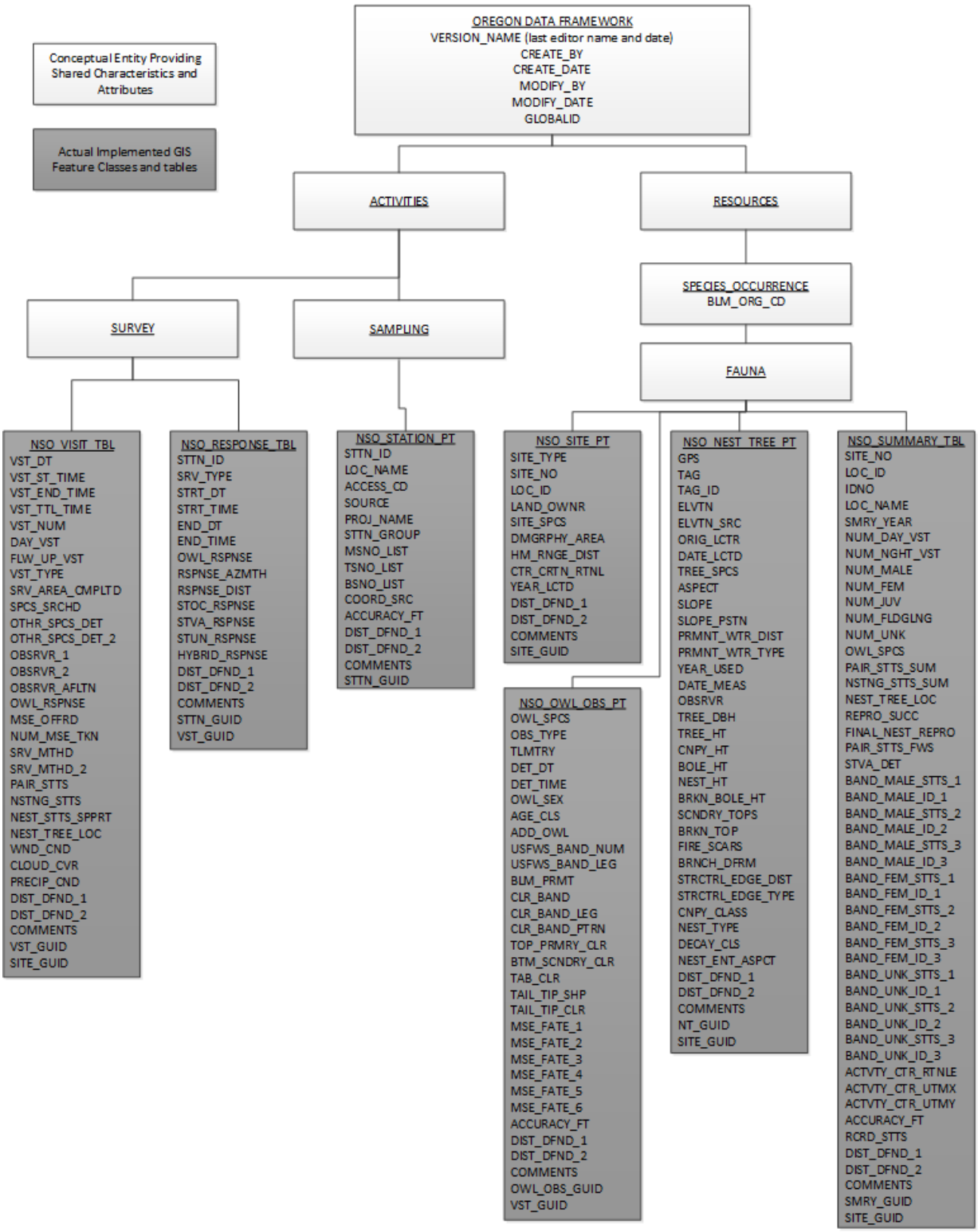


Figure 2 **Data Organization Structure**

2.5 Relationship to DOI Enterprise Architecture Data Resource Mode

The Department of the Interior (DOI) Enterprise Architecture contains a component called the Data Resource Model. This model addresses the concepts of data sharing, data description, and data context. This data standard provides information needed to address each of those areas. Data sharing is addressed through complete documentation and simple data structures which make sharing easier. Data description is addressed through the section on Attribute Descriptions. Data context is addressed through the data organization and structure portions of this document. In addition, the DOI Data Resource Model categorizes data by use of standardized Data Subject Areas and Information Classes. For this dataset, the Data Subject Area and Information Class are:

- Data Subject Area: Geospatial
- Information Class: Location

3 Data Management Protocols

3.1 Accuracy Requirements

This dataset requires the best possible spatial accuracy based on the tools and technologies available to document points and their associated data. The values of required attributes have an accuracy of at least 95 percent. GPS location accuracy for spatial features is usually +- 30ft, but this GPS accuracy is often limited by site conditions (e.g., canopy cover).

3.2 Collection, Input, and Maintenance Protocols

Biologists, technicians, seasonal staff, specialists, and contractors collect data using the *Revised Protocol for Surveying Proposed Management Activities that may Impact Northern Spotted Owls* (USDI Fish and Wildlife Service, 2012).

While data is primarily collected on BLM lands, there are occasions when data is collected on other agency or private lands when survey data crosses ownership. In addition, special studies that focus on all suitable habitat within an area (regardless of ownership) will have data outside of BLM lands.

3.3 Update Frequency and Archival Protocols

The dataset is updated as needed, but at least annually. It is archived annually at the end of the fiscal year. Additionally, to maintain a current representation of data, all records collected in the previous year should be entered into the database by March 1st of the following year.

3.4 Statewide Monitoring

The State Data Steward is responsible for checking consistency across districts for the theme and is responsible for coordinating the response to national BLM and interagency data calls. The GIS Technical Lead is responsible for assisting the State Data Steward as needed.

Each year, the Resource Science Data team of the BLM Division of Resources, Lands, and Minerals meets with each State Data Steward for every corporate geospatial theme to conduct an annual review of the data. During the annual review, geospatial staff present the state data stewards with a report detailing Quality Assurance/Quality Control (QAQC) results performed on the data. The QAQC does the following:

- Checks that all attribute values conform to the range or coded-value domains to which they are applied.
- Checks that all attributes marked as required in the data standard have values.
- Checks for duplicate features which have the same geometry and attributes.
- Checks for overlapping features if forbidden by the data standard.
- Checks for invalid geometry.
- Other checks as necessary (can be customized according to the data standard). For NSO this includes:
    - The combination of Site Number (SITE_NO) and Location ID (LOC_ID) must not be duplicated within the NSO_SITE_PT feature class.
    - When the NSO_VISIT_TBL Nest Tree Located (NEST_TREE_LOC) attribute equals "L", it is recommended that there is a related NSO_NEST_TREE_PT record.

In addition to this report, geospatial staff conduct a qualitative needs assessment with the steward to identify any

unmet needs or problems with the status of the data. At the conclusion of the review, the team records the steward's approval of the datasets reviewed. These approvals are then added to the corporate metadata.

4 Northern Spotted Owl Schema (simplified)

General Information: Attributes are listed in the order they appear in the geodatabase feature class. The order is an indication of the importance of the attribute for theme definition and use. There are no aliases unless specifically noted. The domains used in this data standard can be found in Appendix A. These are the domains at the time the data standard was approved. Domains can be changed without a re-issue of the data standard. Current domains are found on the internal OR/WA SharePoint data management page. Some of the domains used in this data standard are also available at the following web site: https://www.blm.gov/about/data/oregon-data-management.

For domains not listed at that site contact: State Data Administrator.

4.1 NSO Feature Classes

4.1.1 NSO_NEST_TREE_PT Feature Class (NSO Nest Tree Points)

For domain and default values, see Section 7 Attribute Characteristics and Definition (In alphabetical order) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
GPS	String	1		No	dom_YN
TAG	String	1	U	Yes	dom_YN
TAG_ID	String	50		No	
ELVTN	Short Integer			No	
ELVTN_SRC	String	10		No	dom_ELVTN_SRC
ORIG_LCTR	String	50	Unknown	Yes	
DATE_LCTD	Date		1/1/8888	Yes	
TREE_SPCS	String	7	UNKN	Yes	dom_NSO_TREE_SPCS
ASPECT	Short Integer			No	
SLOPE	Double			No	
SLOPE_PSTN	String	30		No	dom_SLOPE_PSTN
PRMNT_WTR_DIST	Short Integer			No	
PRMNT_WTR_TYPE	String	30		Conditional	dom_NSO_WTR_TYPE
YEAR_USED	String	4	UNKN	Yes	
DATE_MEAS	Date			No	
OBSRVR	String	30		No	
TREE_DBH	Double			No	
TREE_HT	Short Integer			No	
CNPY_HT	Double			No	
BOLE_HT	Short Integer			No	
NEST_HT	Short Integer			No	
BRKN_BOLE_HT	Short Integer			No	
SCNDRY_TOPS	Short Integer			No	
BRKN_TOP	String	1		Conditional	dom_YN

Attribute Name	Data Type	Length	Default Value	Required	Domain
FIRE_SCARS	String	1		No	dom_YN
BRNCH_DFRM	String	10		No	dom_NSO_BRNCH_DFRM
STRCTRL_EDGE_DIST	Short Integer			No	
STRCTRL_EDGE_TYPE	String	20		Conditional	dom_NSO_STRCTRL_EDGE_TYPE
CNPY_CLASS	String	15		No	dom_NSO_CNPY_CLASS
NEST_TYPE	String	20		No	dom_NSO_NEST_TYPE
DECAY_CLS	Short Integer			No	dom_DECAY_CLASS
NEST_ENT_ASPCT	Short Integer			No	
BLM_ORG_CD	String	5	OR000	Yes	dom_BLM_ORG_CD
DIST_DFND_1	String	255		No	
DIST_DFND_2	String	255		No	
COMMENTS	String	4000		No	
CREATE_BY	String	50		No *	
CREATE_DATE	Date			No *	
MODIFY_BY	String	50		No *	
MODIFY_DATE	Date			No *	
NT_GUID	GUID			Yes **	
SITE_GUID	GUID			Yes **	
VERSION_NAME	String	50	InitialLoad	Yes ***	
GLOBALID	GUID			Yes *	

* Values automatically generated

** Enforced during quality control, may appear in data as not required

*** Maintained through versioning tools, may appear not required in database

4.1.2 NSO_OWL_OBS_PT Feature Class (NSO Owl Observation Points)

For domain and default values, see Section 7 Attribute Characteristics and Definition (In alphabetical order) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
OWL_SPCS	String	4	STOC	Yes	dom_NSO_SPCS
OBS_TYPE	String	2	AN	Yes	dom_NSO_OBS_TYPE
TLMTRY	String	1	N	No	dom_YN
DET_DT	Date		1/1/8888	Yes	
DET_TIME	String	4		No	

Attribute Name	Data Type	Length	Default Value	Required	Domain
OWL_SEX	String	1	U	Yes	dom_NSO_OWL_SEX
AGE_CLS	String	1	U	Yes	dom_NSO_AGE_CLS
ADD_OWL	String	1	N	Yes	dom_YN
USFWS_BAND_NUM	String	10		No	
USFWS_BAND_LEG	String	1		No	dom_NSO_BAND_LEG
BLM_PRMT	String	1		Conditional	dom_YN
CLR_BAND	String	1		No	dom_YN
CLR_BAND_LEG	String	1		No	dom_NSO_BAND_LEG
CLR_BAND_PTRN	String	3		No	dom_NSO_CLR_BAND_PTRN
TOP_PRMRY_CLR	String	3		No	dom_NSO_TOP_PRMRY_CLR
BTM_SCNDRY_CLR	String	3		No	dom_NSO_BTM_SCNDRY_CLR
TAB_CLR	String	3		No	dom_NSO_TAB_CLR
TAIL_TIP_SHP	String	10		No	dom_NSO_TAIL_TIP_SHP
TAIL_TIP_CLR	String	10		No	dom_NSO_TAIL_TIP_CLR
MSE_FATE_1	String	1		No	dom_NSO_MSE_FATE
MSE_FATE_2	String	1		No	dom_NSO_MSE_FATE
MSE_FATE_3	String	1		No	dom_NSO_MSE_FATE
MSE_FATE_4	String	1		No	dom_NSO_MSE_FATE
MSE_FATE_5	String	1		No	dom_NSO_MSE_FATE
MSE_FATE_6	String	1		No	dom_NSO_MSE_FATE
BLM_ORG_CD	String	5	OR000	Yes	dom_BLM_ORG_CD
ACCURACY_FT	Short Integer			No	dom_NSO_ACCURACY_FT
DIST_DFND_1	String	255		No	
DIST_DFND_2	String	255		No	
COMMENTS	String	4000		No	
CREATE_BY	String	50		No *	
CREATE_DATE	Date			No *	
MODIFY_BY	String	50		No *	
MODIFY_DATE	Date			No *	
OWL_OBS_GUID	GUID			Yes **	
VST_GUID	GUID			Yes **	
VERSION_NAME	String	50	InitialLoad	Yes ***	
GLOBALID	GUID			Yes *	

* Values automatically generated

** Enforced during quality control, may appear in data as not required

*** Maintained through versioning tools, may appear not required in database

4.1.3 NSO_SITE_PT Feature Class (NSO Site Points)

For domain and default values, see Section 7 Attribute Characteristics and Definition (In alphabetical order) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
SITE_TYPE	Short Integer		1	Yes **	dom_NSO_SITE_TYPE
SITE_NO	String	8	0	Yes	dom_NSO_MSNO dom_NSO_TSNO dom_NSO_BSNO
LOC_ID	String	1		Conditional	
BLM_ORG_CD	String	5	OR000	Yes	dom_BLM_ORG_CD
LAND_OWNR	String	3	BL	Yes	dom_JURIS_CODE
SITE_SPCS	String	4		No	dom_NSO_SPCS
DMGRPHY_AREA	String	2		No	dom_NSO_DMGRPHY_AREA
HM_RNGE_DIST	Double			Conditional	dom_NSO_HM_RNGE_DIST
CTR_CRTN_RTNL	String	20		Conditional	dom_NSO_CTR_CRTN
YEAR_LCTD	String	4		No	
DIST_DFND_1	String	255		No	
DIST_DFND_2	String	255		No	
COMMENTS	String	2000		No	
CREATE_BY	String	50		No *	
CREATE_DATE	Date			No *	
MODIFY_BY	String	50		No *	
MODIFY_DATE	Date			No *	
SITE_GUID	GUID			Yes **	
VERSION_NAME	String	50	InitialLoad	Yes ***	
GLOBALID	GUID			Yes *	

* Values automatically generated

** Enforced during quality control, may appear in data as not required

*** Maintained through versioning tools, may appear not required in database

4.1.4 NSO_STATION_PT Feature Class (NSO Station Point)

For domain and default values, see Section 7 Attribute Characteristics and Definition (In alphabetical order) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
STTN_ID	String	50	Unknown	Yes	

Attribute Name	Data Type	Length	Default Value	Required	Domain
BLM_ORG_CD	String	5	OR000	Yes	dom_BLM_ORG_CD
LOC_NAME	String	60		No	
ACCESS_CD	String	10		No	dom_NSO_ACCESS
SOURCE	String	30		No	
PROJ_NAME	String	100		No	
STTN_GROUP	String	30		No	
MSNO_LIST	String	40		No	
TSNO_LIST	String	40		No	
BSNO_LIST	String	40		No	
COORD_SRC	String	7		No	dom_COORD_SRC
ACCURACY_FT	Short Integer			No	
DIST_DFND_1	String	255		No	
DIST_DFND_2	String	255		No	
COMMENTS	String	1000		No	
CREATE_BY	String	50		No *	
CREATE_DATE	Date			No *	
MODIFY_BY	String	50		No *	
MODIFY_DATE	Date			No *	
STTN_GUID	GUID			Yes **	
VERSION_NAME	String	50	InitialLoad	Yes ***	
GLOBALID	GUID			Yes *	

* Values automatically generated

** Enforced during quality control, may appear in data as not required

*** Maintained through versioning tools, may appear not required in database

4.2 NSO Standalone Tables

4.2.1 NSO_RESPONSE_TBL Table (NSO Response)

For domain and default values, see Section 7 Attribute Characteristics and Definition (In alphabetical order) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
STTN_ID	String	50	Unknown	Yes	
SRV_TYPE	String	10	Callback	Yes	dom_NSO_SRV_TYPE
STRT_DT	Date		1/1/8888	Yes	
STRT_TIME	String	4	0000	Yes	

Attribute Name	Data Type	Length	Default Value	Required	Domain
END_DT	Date		1/1/8888	Yes	
END_TIME	String	4	0000	Yes	
OWL_RSPNSE	String	1	N	Yes	dom_YN
RSPNSE_AZMTH	Short Integer			No	
RSPNSE_DIST	Short Integer			No	
STOC_RSPNSE	String	1		Yes	dom_YN
STVA_RSPNSE	String	1		No	dom_YN
STUN_RSPNSE	String	1		No	dom_YN
HYBRID_RSPNSE	String	1		No	dom_YN
DIST_DFND_1	String	255		No	
DIST_DFND_2	String	255		No	
COMMENTS	String	4000		No	
CREATE_BY	String	50		No *	
CREATE_DATE	Date			No *	
MODIFY_BY	String	50		No *	
MODIFY_DATE	Date			No *	
STTN_GUID	GUID			Yes **	
VST_GUID	GUID			Yes **	
VERSION_NAME	String	50	InitialLoad	Yes ***	
GLOBALID	GUID			Yes *	

* Values automatically generated

** Enforced during quality control, may appear in data as not required

*** Maintained through versioning tools, may appear not required in database

4.2.2 NSO_SITE_NBR_TBL Table (NSO Site Number)

For domain and default values, see Section 7 Attribute Characteristics and Definition (In alphabetical order) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
SITE_TYPE	Short Integer		1	Yes **	dom_NSO_SITE_TYPE
SITE_NO	String	8	0	Yes	
LOC_NAME	String	100	Unknown	Yes	
BLM_ORG_CD	String	5	OR000	Yes	dom_BLM_ORG_CD
BLM_ORG_CD_GST	String	5		No	dom_BLM_ORG_CD

Attribute Name	Data Type	Length	Default Value	Required	Domain
CREATE_BY	String	50		No *	
CREATE_DATE	Date			No *	
MODIFY_BY	String	50		No *	
MODIFY_DATE	Date			No *	
VERSION_NAME	String	50	InitialLoad	Yes ***	
GLOBALID	GUID			Yes *	

* Values automatically generated

** Enforced during quality control, may appear in data as not required

*** Maintained through versioning tools, may appear not required in database

4.2.3 NSO_SUMMARY_TBL Table (NSO Summary)

For domain and default values, see Section 7 Attribute Characteristics and Definition (In alphabetical order) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
SITE_NO	String	8	0	Yes	
LOC_ID	String	1	O	Yes	
IDNO	String	9	O	Yes	
LOC_NAME	String	100	Unknown	Yes	
SMRY_YEAR	String	4	0000	Yes	
NUM_DAY_VST	Short Integer			No	
NUM_NGHT_VST	Short Integer			No	
NUM_MALE	Short Integer			No	
NUM_FEM	Short Integer			No	
NUM_JUV	Short Integer			No	
NUM_FLDGLNG	Short Integer			No	
NUM_UNK	Short Integer			No	
OWL_SPCS	String	4	STOC	Yes	dom_NSO_SPCS
PAIR_STTS_SUM	String	1	N	Yes	dom_NSO_PAIR_STTS_SUM
NSTNG_STTS_SUM	String	2		No	dom_NSO_NSTNG_STTS_SUM
NEST_TREE_LOC	String	1		No	dom_NSO_NEST_TREE_LOC
REPRO_SUCC	String	2		No	dom_NSO_REPRO_SUCC
FINAL_NEST_REPRO	String	2		No	dom_NSO_FINAL_NEST_REPRO
PAIR_STTS_FWS	String	1	U	Yes	dom_NSO_PAIR_STTS_FWS
STVA_DET	String	1		No	dom_YN
BAND_MALE_STTS_1	String	1		No	dom_NSO_BAND_STTS

Attribute Name	Data Type	Length	Default Value	Required	Domain
BAND_MALE_ID_1	GUID			No	
BAND_MALE_STTS_2	String	1		No	dom_NSO_BAND_STTS
BAND_MALE_ID_2	GUID			No	
BAND_MALE_STTS_3	String	1		No	dom_NSO_BAND_STTS
BAND_MALE_ID_3	GUID			No	
BAND_FEM_STTS_1	String	1		No	dom_NSO_BAND_STTS
BAND_FEM_ID_1	GUID			No	
BAND_FEM_STTS_2	String	1		No	dom_NSO_BAND_STTS
BAND_FEM_ID_2	GUID			No	
BAND_FEM_STTS_3	String	1		No	dom_NSO_BAND_STTS
BAND_FEM_ID_3	GUID			No	
BAND_UNK_STTS_1	String	1		No	dom_NSO_BAND_STTS
BAND_UNK_ID_1	GUID			No	
BAND_UNK_STTS_2	String	1		No	dom_NSO_BAND_STTS
BAND_UNK_ID_2	GUID			No	
BAND_UNK_STTS_3	String	1		No	dom_NSO_BAND_STTS
BAND_UNK_ID_3	GUID			No	
ACTVTY_CTR_RTNLE	String	2	NR	Required	dom_NSO_ACTVTY_CTR_RTNLE
ACTVTY_CTR_UTMX	Long Integer			No	
ACTVTY_CTR_UTMY	Long Integer			No	
ACCURACY_FT	Short Integer			No	
RCRD_STTS	String	1		No	dom_NSO_RCRD_STTS
DIST_DFND_1	String	255		No	
DIST_DFND_2	String	255		No	
COMMENTS	String	2000		No	
CREATE_BY	String	50		No *	
CREATE_DATE	Date			No *	
MODIFY_BY	String	50		No *	
MODIFY_DATE	Date			No *	
SMRY_GUID	GUID			Yes **	
SITE_GUID	GUID			Yes **	
VERSION_NAME	String	50	InitialLoad	Yes ***	
GLOBALID	GUID			Yes *	

* Values automatically generated

** Enforced during quality control, may appear in data as not required

*** Maintained through versioning tools, may appear not required in database

4.2.4 NSO_VISIT_TBL Table (NSO Visit)

For domain and default values, see Section 7 Attribute Characteristics and Definition (In alphabetical order) in this document.

Attribute Name	Data Type	Length	Default Value	Required	Domain
VST_DT	Date		1/1/8888	Yes	
VST_ST_TIME	String	4		No	
VST_END_TIME	String	4		No	
VST_TTL_TIME	String	4		No	
VST_NUM	Short Integer			No	
DAY_VST	String	5	Night	Yes	dom_NSO_DAY_VST
FLW_UP_VST	String	1	N	No	dom_YN
VST_TYPE	String	2	OC	Yes	dom_NSO_VST_TYPE
SRV_AREA_CMPLTD	String	1		No	dom_YN
SPCS_SRCHD	String	4	STOC	Yes	dom_NSO_SPCS
OTHR_SPCS_DET	String	4		No	dom_NSO_SPCS
OTHR_SPCS_DET_2	String	4		No	dom_NSO_SPCS
OBSRVR_1	String	30	Unk	Yes	
OBSRVR_2	String	30		No	
OBSRVR_AFLTN	String	100		No	dom_NSO_AFLTN
OWL_RSPNSE	String	1	N	Yes	dom_YN
MSE_OFFRD	String	1	N	Yes	dom_YN
NUM_MSE_TKN	Short Integer			Conditional	
SRV_MTHD	String	1		No	dom_NSO_SRV_MTHD
SRV_MTHD_2	String	1		No	dom_NSO_SRV_MTHD
PAIR_STTS	String	1		Conditional	dom_NSO_PAIR_STTS
NSTNG_STTS	String	2		Conditional	dom_NSO_NSTNG_STTS
NEST_STTS_SPPRT	String	1		Conditional	dom_NSO_NEST_STTS_SPPRT
NEST_TREE_LOC	String	1		Conditional	dom_NSO_NEST_TREE_LOC
WND_CND	String	20		No	dom_NSO_WND_CND
CLOUD_CVR	String	1		No	dom_NSO_CLOUD_CVR
PRECIP_CND	String	20		No	dom_NSO_PRECIP_CND
DIST_DFND_1	String	255		No	
DIST_DFND_2	String	255		No	

Attribute Name	Data Type	Length	Default Value	Required	Domain
COMMENTS	String	4000		No	
CREATE_BY	String	50		No *	
CREATE_DATE	Date			No *	
MODIFY_BY	String	50		No *	
MODIFY_DATE	Date			No *	
VST_GUID	GUID			Yes **	
SITE_GUID	GUID			Yes **	
VERSION_NAME	String	50	InitialLoad	Yes ***	
GLOBALID	GUID			Yes *	

* Values automatically generated

** Enforced during quality control, may appear in data as not required

*** Maintained through versioning tools, may appear not required in database

4.3 NSO Relationship Classes

4.3.1 REL_NSO_NEST_TREE_PT_VISIT_TBL

Origin Table	NSO_NEST_TREE_PT
Origin Primary Key	NT_GUID
Destination Table	NSO_VISIT_TBL
Destination Foreign Key	NT_GUID
Relationship Type	Simple
Labels	NSO Visit Table, NSO Nest Tree Point
Messages	None
Cardinality	1 to Many

4.3.2 REL_NSO_OWL_OBS_PT_VISIT_TBL

Note: the relationships between these two data objects have been reversed to resolve a bug with the ESRI software. In actuality, there is a one-to-many relationship from Visits to Owl Observations.

Origin Table	NSO_OWL_OBS_PT
Origin Primary Key	VST_GUID
Destination Table	NSO_VISIT_TBL
Destination Foreign Key	VST_GUID
Relationship Type	Simple

Labels	NSO Visit Table, NSO Owl Observation Point
Messages	None
Cardinality	1 to 1

4.3.3 REL_NSO_SITE_PT_SUMMARY_TBL

Origin Table	NSO_SITE_PT
Origin Primary Key	SITE_GUID
Destination Table	NSO_SUMMARY_TBL
Destination Foreign Key	SITE_GUID
Relationship Type	Simple
Labels	NSO Summary Table, NSO Site Point
Messages	None
Cardinality	1 to Many

4.3.4 REL_NSO_SITE_PT_VISIT_TBL

Origin Table	NSO_SITE_PT
Origin Primary Key	SITE_GUID
Destination Table	NSO_VISIT_TBL
Destination Foreign Key	SITE_GUID
Relationship Type	Simple
Labels	NSO Visit Table, NSO Site Point
Messages	None
Cardinality	1 to Many

4.3.5 REL_NSO_STATION_PT_RESPONSE_TBL

Origin Table	NSO_STATION_PT
Origin Primary Key	STTN_GUID
Destination Table	NSO_RESPONSE_TBL
Destination Foreign Key	STTN_GUID
Relationship Type	Simple
Labels	NSO Response Table, NSO Station Point
Messages	None
Cardinality	1 to Many

4.3.6 REL_NSO_VISIT_TBL_RESPONSE_TBL

Origin Table	NSO_VISIT_TBL
Origin Primary Key	VST_GUID
Destination Table	NSO_RESPONSE_TBL
Destination Foreign Key	VST_GUID
Relationship Type	Simple
Labels	NSO Response Table, NSO Visit Table
Messages	None
Cardinality	1 to Many

5 Projection and Spatial Extent

All feature classes and feature datasets are in Geographic, North American Datum 83. Units are decimal degrees. Spatial extent (area of coverage) includes all lands managed by the BLM OR/WA in Western Oregon. See the metadata for this data for a more precise description of the extent.

6 Spatial Entity Characteristics

- NSO_NEST_TREE_PT
  - Description: Instance of the Resources Species Occurrence group.
  - Geometry: Point; disjoint large areas or scattered small areas. Features may overlap (stack) on each other.
  - Topology: No topology enforced
  - Integration Requirements: None
- NSO_OWL_OBS_PT
  - Description: Instance of the Resources Species Occurrence group.
  - Geometry: Point; disjoint large areas or scattered small areas. Features may overlap (stack) on each other.
  - Topology: No topology enforced
  - Integration Requirements: None
- NSO_SITE_PT
  - Description: Instance of the Resources Species Occurrence group.
  - Geometry: Point; disjoint large areas or scattered small areas. Features should not overlap each other.
  - Topology: No topology enforced
  - Integration Requirements: None
- NSO_STATION_PT
  - Description: Instance of the Sampling group.
  - Geometry: Point; disjoint large areas or scattered small areas. Features may overlap (stack) on each other, but this is discouraged. In some cases, overlapping stations may occur (such as stations from other sources). Generally, stations are unique points on the landscape that are revisited year to year.
  - Topology: No topology enforced
  - Integration Requirements: None

7 Attribute Characteristics and Definition (In alphabetical order)

7.1 ACCESS_CD

Geodatabase Name	ACCESS_CD
BLM Structured Name	NSO_Station_Access_Code
Inheritance	Not Inherited
Alias Name	Access
Feature Class Use/Entity Table	NSO_STATION_PT
Definition	Describes how the station can be approached by the surveyor.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_ACCESS
Data Type	String (10)

7.2 ACCURACY_FT

Geodatabase Name	ACCURACY_FT
BLM Structured Name	Accuracy_Feet_Measure
Inheritance	Not Inherited
Alias Name	Accuracy Ft
Feature Class Use/Entity Table	NSO_STATION_PT, NSO_SUMMARY_TBL, NSO_OWL_OBS_PT
Definition	How close, in feet, the spatial GIS depiction is to the actual location on the ground. There are several factors to consider in GIS error: scale and accuracy of map-based sources, accuracy of GPS equipment, and the skill level of the data manipulators. A value of zero indicates no entry was made. This is the correct value when the COORD_SRC is another GIS theme (Digital Line Graphs (DLG), Geographic Coordinate Database (GCD), and Digital Elevation Model (DEM)) because the accuracy is determined by that theme. However, if COORD_SRC is MAP (digitized from a paper map) or GPS, a value of "0" indicates a missing value that should be filled in either with a non-zero number or "-1." A value of "-1" indicates that the accuracy is unknown, and no reliable estimate can be made.
Required/Optional	Optional
Domain (Valid Values)	For NSO_OWL_OBS_PT: dom_NSO_ACCURACY_FT NSO_STATION_PT and NSO_SUMMARY_TBL: None. Examples: 3 (for high accuracy GPS), 40 (best possible for USGS 24K topo map), 200
Data Type	Short Integer

7.3 ACTVTY_CTR_RTNLE

Geodatabase Name	ACTVTY_CTR_RTNLE

BLM Structured Name	NSO_Activity_Center_Rationale_Code
Inheritance	Not Inherited
Alias Name	Activity Center Rationale
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The rationale for selecting the activity center coordinate for the summary year. The default value for this field is NR (Unknown rationale with detections, defaulted to IDNO coordinate).
Required/Optional	Required
Domain (Valid Values)	dom_NSO_ACTVTY_CTR_RTNLE
Data Type	String (2)

7.4 ACTVTY_CTR_UTMX

Geodatabase Name	ACTVTY_CTR_UTMX
BLM Structured Name	NSO_Activity_Center_Universal_Transverse_Mercator_X_Coordinate_Number
Inheritance	Not Inherited
Alias Name	Activity Center UTM Coord X
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	A 6-digit code for the activity center in UTM coordinates. The activity center is a coordinate determined to be used as the location of the site during the summary year. A typical entry of UTMX (Easting) is 513623. The last digit indicates an accuracy to within 1 meter. If you do not feel that the location is accurate to 1 meter, fill the last place(s) with 0 (513620). All UTM entries are in North America Datum 83, Zone 10.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 465605, 505545
Data Type	Long Integer

7.5 ACTVTY_CTR_UTMY

Geodatabase Name	ACTVTY_CTR_UTMY
BLM Structured Name	NSO_Activity_Center_Universal_Transverse_Mercator_Y_Coordinate_Number
Inheritance	Not Inherited
Alias Name	Activity Center UTM Coord Y
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	A 7-digit code for the activity center in UTM coordinates. The activity center is a coordinate determined to be used as the location of the site during the summary year. A typical entry of UTMY (Northing) is 4782432. The last digit indicates an accuracy to within 1 meter. If you do not feel that the

	location is accurate to 1 meter, fill the last place(s) with 0 (4782430). All UTM entries are in North America Datum 83, Zone 10.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 4745356, 4816656
Data Type	Long Integer

7.6 ADD_OWL

Geodatabase Name	ADD_OWL
BLM Structured Name	NSO_Additional_Owl_Code
Inheritance	Not Inherited
Alias Name	Additional Owl
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	This field is used for the summary to determine the number of owls of a particular sex and age class that were at the site center during the year of survey. The only time the field is set to Yes is when more than one male or one female is present at the site during the survey year. The field is set to Yes only once during the year for that individual. On the rare occasion that 3 individuals of the same sex and age class are present, all 3 individuals are entered into the dataset and the field is set to Yes for two individuals. The default value for this field is N (No).
Required/Optional	Required.
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.7 AGE_CLS

Geodatabase Name	AGE_CLS
BLM Structured Name	NSO_Age_Class_Code
Inheritance	Not Inherited
Alias Name	Age Class
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	The development stage of the observed owl. The default value for this field is U (Unknown).
Required/Optional	Required
Domain (Valid Values)	dom_NSO_AGE_CLS
Data Type	String (1)

7.8 ASPECT

Geodatabase Name	ASPECT
BLM Structured Name	Aspect_Number

Inheritance	Not Inherited
Alias Name	Slope Aspect
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	The slope aspect at the nest tree, measured by standing by the nest tree and using a compass to take an azimuth reading. Allowable values are 0-360.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 12, 30, 360
Data Type	Short Integer

7.9 BAND_FEM_ID_1

Geodatabase Name	BAND_FEM_ID_1
BLM Structured Name	NSO_First_Banded_Female_Identifier
Inheritance	Not Inherited
Alias Name	Owl Obs Id for Female Owl 1
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The unique identifier for the Owl Observation for the first female observed at the site during the summary year.
Required/Optional	Optional
Domain (Valid Values)	No domain. Example: {4DA82E8C-FD06-4FC9-B9B2-FAA811A1E685}
Data Type	GUID

7.10 BAND_FEM_ID_2

Geodatabase Name	BAND_FEM_ID_2
BLM Structured Name	NSO_Second_Banded_Female_Identifier
Inheritance	Not Inherited
Alias Name	Owl Obs Id for Female Owl 2
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The unique identifier for the Owl Observation for the second female observed at the site during the summary year. Only entered if it is determined to be unique from the first female observed.
Required/Optional	Optional
Domain (Valid Values)	No domain. Example: {4DA82E8C-FD06-4FC9-B9B2-FAA811A1E685}
Data Type	GUID

7.11 BAND_FEM_ID_3

Geodatabase Name	BAND_FEM_ID_3
BLM Structured Name	NSO_Third_Banded_Female_Identifier

Inheritance	Not Inherited
Alias Name	Owl Obs Id for Female Owl 3
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The unique identifier for the Owl Observation for the third female observed at the site during the summary year. Only entered if it is determined to be unique from the first and second females observed.
Required/Optional	Optional
Domain (Valid Values)	No domain. Example: {4DA82E8C-FD06-4FC9-B9B2-FAA811A1E685}
Data Type	GUID

7.12 BAND_MALE_ID_1

Geodatabase Name	BAND_MALE_ID_1
BLM Structured Name	NSO_First_Banded_Male_Identifier
Inheritance	Not Inherited
Alias Name	Owl Obs Id for Male Owl 1
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The unique identifier for the Owl Observation for the first male observed at the site during the summary year.
Required/Optional	Optional
Domain (Valid Values)	No domain. Example: {4DA82E8C-FD06-4FC9-B9B2-FAA811A1E685}
Data Type	GUID

7.13 BAND_MALE_ID_2

Geodatabase Name	BAND_MALE_ID_2
BLM Structured Name	NSO_Second_Banded_Male_Identifier
Inheritance	Not Inherited
Alias Name	Owl Obs Id for Male Owl 2
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The unique identifier for the Owl Observation for the second male observed at the site during the summary year. Only entered if it is determined to be unique from the first male observed.
Required/Optional	Optional
Domain (Valid Values)	No domain. Example: {4DA82E8C-FD06-4FC9-B9B2-FAA811A1E685}
Data Type	GUID

7.14 BAND_MALE_ID_3

Geodatabase Name	BAND_MALE_ID_3
BLM Structured Name	NSO_Third_Banded_Male_Identifier
Inheritance	Not Inherited
Alias Name	Owl Obs Id for Male Owl 3
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The unique identifier for the Owl Observation for the third male observed at the site during the summary year. Only entered if it is determined to be unique from the first and second males observed.
Required/Optional	Optional
Domain (Valid Values)	No domain. Example: {4DA82E8C-FD06-4FC9-B9B2-FAA811A1E685}
Data Type	GUID

7.15 BAND_UNK_ID_1

Geodatabase Name	BAND_UNK_ID_1
BLM Structured Name	NSO_First_Banded_Unknown_Identifier
Inheritance	Not Inherited
Alias Name	Owl Obs Id for Unknown Owl 1
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The unique identifier for the Owl Observation for the first owl of unknown sex observed at the site during the summary year.
Required/Optional	Optional
Domain (Valid Values)	No domain. Example: {4DA82E8C-FD06-4FC9-B9B2-FAA811A1E685}
Data Type	GUID

7.16 BAND_UNK_ID_2

Geodatabase Name	BAND_UNK_ID_2
BLM Structured Name	NSO_First_Banded_Second_Identifier
Inheritance	Not Inherited
Alias Name	Owl Obs Id for Unknown Owl 2
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The unique identifier for the Owl Observation for the second owl of unknown sex observed at the site during the summary year. Only entered if it is determined to be unique from the first unknown observed.
Required/Optional	Optional
Domain (Valid Values)	No domain. Example: {4DA82E8C-FD06-4FC9-B9B2-FAA811A1E685}
Data Type	GUID

7.17 BAND_UNK_ID_3

Geodatabase Name	BAND_UNK_ID_3
BLM Structured Name	NSO_Third_Banded_Unknown_Identifier
Inheritance	Not Inherited
Alias Name	Owl Obs Id for Unknown Owl 3
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The unique identifier for the Owl Observation for the third owl of unknown sex observed at the site during the summary year. Only entered if it is determined to be unique from the first and second unknowns observed.
Required/Optional	Optional
Domain (Valid Values)	No domain. Example: {4DA82E8C-FD06-4FC9-B9B2-FAA811A1E685}
Data Type	GUID

7.18 BAND_FEM_STTS_1

Geodatabase Name	BAND_FEM_STTS_1
BLM Structured Name	NSO_First_Banded_Female_Status_Code
Inheritance	Not Inherited
Alias Name	Banded Status for Female Owl 1
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The banding status of the first female observed at the site during the summary year.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_BAND_STTS
Data Type	String (1)

7.19 BAND_FEM_STTS_2

Geodatabase Name	BAND_FEM_STTS_2
BLM Structured Name	NSO_Second_Banded_Female_Status_Code
Inheritance	Not Inherited
Alias Name	Banded Status for Female Owl 2
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The banding status of the second female observed at the site during the summary year. Only entered if the individual is determined to be unique from the first female observed.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_BAND_STTS

Data Type	String (1)

7.20 BAND_FEM_STTS_3

Geodatabase Name	BAND_FEM_STTS_3
BLM Structured Name	NSO_Third_Banded_Female_Status_Code
Inheritance	Not Inherited
Alias Name	Banded Status for Female Owl 3
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The banding status of the third female observed at the site during the summary year. Only entered if the individual is determined to be unique from the first and second females observed.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_BAND_STTS
Data Type	String (1)

7.21 BAND_MALE_STTS_1

Geodatabase Name	BAND_MALE_STTS_1
BLM Structured Name	NSO_First_Banded_Male_Status_Code
Inheritance	Not Inherited
Alias Name	Banded Status for Male Owl 1
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The banding status of the first male observed at the site during the summary year.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_BAND_STTS
Data Type	String (1)

7.22 BAND_MALE_STTS_2

Geodatabase Name	BAND_MALE_STTS_2
BLM Structured Name	NSO_Second_Banded_Male_Status_Code
Inheritance	Not Inherited
Alias Name	Banded Status for Male Owl 2
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The banding status of the second male observed at the site during the summary year. Only entered if the individual is determined to be unique from the first male observed.

Required/Optional	Optional
Domain (Valid Values)	dom_NSO_BAND_STTS
Data Type	String (1)

7.23 BAND_MALE_STTS_3

Geodatabase Name	BAND_MALE_STTS_3
BLM Structured Name	NSO_Third_Banded_Male_Status_Code
Inheritance	Not Inherited
Alias Name	Banded Status for Male Owl 3
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The banding status of the third male observed at the site during the summary year. Only entered if the individual is determined to be unique from the first and second males observed.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_BAND_STTS
Data Type	String (1)

7.24 BAND_UNK_STTS_1

Geodatabase Name	BAND_UNK_STTS_1
BLM Structured Name	NSO_First_Banded_Unknown_Status_Code
Inheritance	Not Inherited
Alias Name	Banded Status for Unknown Owl 1
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The banding status of the first owl of unknown sex observed at the site during the summary year.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_BAND_STTS
Data Type	String (1)

7.25 BAND_UNK_STTS_2

Geodatabase Name	BAND_UNK_STTS_2
BLM Structured Name	NSO_Second_Banded_Unknown_Status_Code
Inheritance	Not Inherited
Alias Name	Banded Status for Unknown Owl 2
Feature Class Use/Entity Table	NSO_SUMMARY_TBL

Definition	The banding status of the second owl of unknown sex observed at the site during the summary year. Only entered if the individual is determined to be unique from the first owl of unknown sex observed.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_BAND_STTS
Data Type	String (1)

7.26 BAND_UNK_STTS_3

Geodatabase Name	BAND_UNK_STTS_3
BLM Structured Name	NSO_Third_Banded_Unknown_Status_Code
Inheritance	Not Inherited
Alias Name	Banded Status for Unknown Owl 3
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The banding status of the third owl of unknown sex observed at the site during the summary year. Only entered if the individual is determined to be unique from the first and second owls of unknown sex observed.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_BAND_STTS
Data Type	String (1)

7.27 BLM_ORG_CD

Geodatabase Name	BLM_ORG_CD
BLM Structured Name	Administrative_Unit_Organization_Code
Inheritance	Inherited from entity Species Occurrence
Alias Name	BLM Org Code
Feature Class Use/Entity Table	NSO_SITE_PT, NSO_STATION_PT, NSO_SITE_NBR_TBL, NSO_NEST_TREE_PT, NSO_OWL_OBS_PT
Definition	A combination of the BLM administrative state and field office that has administrative responsibility for the spatial entity. This includes which office covers the entity for planning purposes and which office is the lead for GIS edits. Another agency or individual may have the physical management responsibility for the on-the-ground entity. This field applies particularly when a spatial entity crosses resource area or district boundaries, and the administrative responsibility is assigned to one or the other rather than splitting the spatial unit. Similarly, OR/WA BLM may have administrative responsibility over some area that is physically located in Nevada, Idaho, and California and vice versa. When appropriate, the office can be identified only to the district or state level rather than to the resource area level.
Required/Optional	Required
Domain (Valid Values)	dom_BLM_ORG_CD
Data Type	String (5)

7.28 BLM_ORG_CD_GST

Geodatabase Name	BLM_ORG_CD_GST
BLM Structured Name	NSO_Site_Guest_Administrative_Unit_Organization_Code
Inheritance	Not Inherited
Alias Name	Guest BLM Org Code
Feature Class Use/Entity Table	NSO_SITE_NBR_TBL
Definition	The administrative unit code for alternate districts that record data for the site.
Required/Optional	Optional
Domain (Valid Values)	dom_BLM_ORG_CD
Data Type	String (5)

7.29 BLM_PRMT

Geodatabase Name	BLM_PRMT
BLM Structured Name	NSO_BLM_Permit_Code
Inheritance	Not Inherited
Alias Name	BLM Permit
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	Indicates if the bird was originally banded with a USFWS band under a BLM permit. This field defaults to "N" (No). If the observation type equals "BB" (New bands attached (first) (first attachment of a USFWS band).) and BLM bands are used, this field must equal "Y" (Yes).
Required/Optional	Conditional
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.30 BOLE_HT

Geodatabase Name	BOLE_HT
BLM Structured Name	NSO_Bole_Height_Measure
Inheritance	Not Inherited
Alias Name	Bole Ht (m)
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	Height from the ground to where the first live limb meets the bole, measured in meters. If the Nest Tree is a snag, leave null.
Required/Optional	Optional

Domain (Valid Values)	No domain. Examples: 6, 17, 30
Data Type	Short Integer

7.31 BRKN_BOLE_HT

Geodatabase Name	BRKN_BOLE_HT
BLM Structured Name	NSO_Broken_Bole_Height_Measure
Inheritance	Not Inherited
Alias Name	Broken Bole Ht (m)
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	If the nest tree is a live tree, the height, measured in meters, from the ground to the top of the broken bole.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 6, 17, 30
Data Type	Short Integer

7.32 BRKN_TOP

Geodatabase Name	BRKN_TOP
BLM Structured Name	NSO_Broken_Top_Code
Inheritance	Not Inherited
Alias Name	Broken Top
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	Indicates if the nest tree is a live tree with a broken top. If the broken bole height (BRKN_BOLE_HT) field is not null, then this field is required.
Required/Optional	Conditional
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.33 BRNCH_DFRM

Geodatabase Name	BRNCH_DFRM
BLM Structured Name	NSO_Branch_Deformities_Code
Inheritance	Not Inherited
Alias Name	Branch Deformities
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	The amount of branch deformities (if any) on the nest tree.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_BRNCH_DFRM

Data Type	String (10)

7.34 BSNO_LIST

Geodatabase Name	BSNO_LIST
BLM Structured Name	NSO_BSNO_List_Text
Inheritance	Not Inherited
Alias Name	BSNO List
Feature Class Use/Entity Table	NSO_STATION_PT
Definition	A comma delimited list of Barred Owl Site Number(s) that the station can be used to call to.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 31126, 31128
Data Type	String (40)

7.35 BTM_SCNDRY_CLR

Geodatabase Name	BTM_SCNDRY_CLR
BLM Structured Name	NSO_Bottom_Secondary_Band_Color
Inheritance	Not Inherited
Alias Name	Bottom/Secondary Color
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	The stripe color of striped bands or the bottom color of bicolored bands. This is the under layer of the routed band.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_BTM_SCNDRY_CLR
Data Type	String (3)

7.36 CLOUD_CVR

Geodatabase Name	CLOUD_CVR
BLM Structured Name	Cloud_Cover_Code
Inheritance	Not Inherited
Alias Name	Cloud Cover
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	Represents the predominant cloud condition during the visit.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_CLOUD_CVR
Data Type	String (1)

7.37 CLR_BAND

Geodatabase Name	CLR_BAND
BLM Structured Name	NSO_Color_Band_Code
Inheritance	Not Inherited
Alias Name	Color Band
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	Indicates if the owl has been banded with a leg band.
Required/Optional	Optional
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.38 CLR_BAND_LEG

Geodatabase Name	CLR_BAND_LEG
BLM Structured Name	NSO_Color_Band_Leg_Code
Inheritance	Not Inherited
Alias Name	Color Band Leg
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	If the owl has been banded, indicates the leg that the band is on.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_BAND_LEG
Data Type	String (1)

7.39 CLR_BAND_PTRN

Geodatabase Name	CLR_BAND_PTRN
BLM Structured Name	NSO_Color_Band_Pattern_Code
Inheritance	Not Inherited
Alias Name	Color Band Pattern
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	If the owl has been banded, the pattern that appears on the band.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_CLR_BAND_PTRN
Data Type	String (3)

7.40 CNPY_CLASS

Geodatabase Name	CNPY_CLASS
BLM Structured Name	NSO_Canopy_Classification_Code
Inheritance	Not Inherited
Alias Name	Canopy Classification
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	The characterization of the vegetation canopy structure for live nest trees.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_CNPY_CLASS
Data Type	String (15)

7.41 CNPY_HT

Geodatabase Name	CNPY_HT
BLM Structured Name	Canopy_Height_Meters_Measure
Inheritance	Not Inherited
Alias Name	Canopy Height (m)
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	Height from the ground to the top of the live foliage, measured in meters. If the nest tree is a snag, leave null.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 18, 32, 118
Data Type	Double

7.42 COMMENTS

Geodatabase Name	COMMENTS
BLM Structured Name	Comments_Text
Inheritance	Not Inherited
Alias Name	Comments
Feature Class Use/Entity Table	NSO_NEST_TREE_PT, NSO_OWL_OBS_PT, NSO_SITE_PT, NSO_STATION_PT, NSO_RESPONSE_TBL, NSO_SUMMARY_TBL, NSO_VISIT_TBL
Definition	Free text for additional information about the record.
Required/Optional	Optional
Domain (Valid Values)	No domain.
Data Type	String (length varies by data object)

7.43 COORD_SRC

Geodatabase Name	COORD_SRC
BLM Structured Name	Coordinate_Source_Code
Inheritance	Not Inherited
Alias Name	Coordinate Source
Feature Class Use/Entity Table	NSO_STATION_PT
Definition	The actual source of the GIS coordinates for the spatial features.
Required/Optional	Optional
Domain (Valid Values)	dom_COORD_SRC
Data Type	String (7)

7.44 CREATE_BY

Geodatabase Name	CREATE_BY
BLM Structured Name	Record_Created_By_Text
Inheritance	Not Inherited
Alias Name	Created By
Feature Class Use/Entity Table	All feature classes and tables
Definition	The BLM login ID of the person who entered the data. The default value for this field is UNK. This field is auto populated during editing.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: jdoe, msmith
Data Type	String (50)

7.45 CREATE_DATE

Geodatabase Name	CREATE_DATE
BLM Structured Name	Record_Created_Date
Inheritance	Not Inherited
Alias Name	Created Date
Feature Class Use/Entity Table	All feature classes and tables
Definition	The date the record was entered. The default value for this field is 1/1/8888. This field is auto populated during editing.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 1/5/1999, 10/15/2021
Data Type	Date

7.46 CTR_CRTN_RTNL

Geodatabase Name	CTR_CRTN_RTNL
BLM Structured Name	NSO_Site_Center_Creation_Rationale_Code
Inheritance	Not Inherited
Alias Name	Site Center Creation Rationale
Feature Class Use/Entity Table	NSO_SITE_PT
Definition	Explains the reason for the creation of a site center. This field is required for MSNO sites (SITE_TYPE = 1 - MSNO).
Required/Optional	Conditional
Domain (Valid Values)	dom_NSO_CTR_CRTN
Data Type	String (20)

7.47 DATE_LCTD

Geodatabase Name	DATE_LCTD
BLM Structured Name	NSO_Nest_Tree_Located_Date
Inheritance	Not Inherited
Alias Name	Date Located
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	The day the nest tree was originally located. The default value for this field is 1/1/8888.
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: 4/2/2002, 3/15/2010
Data Type	Date

7.48 DATE_MEAS

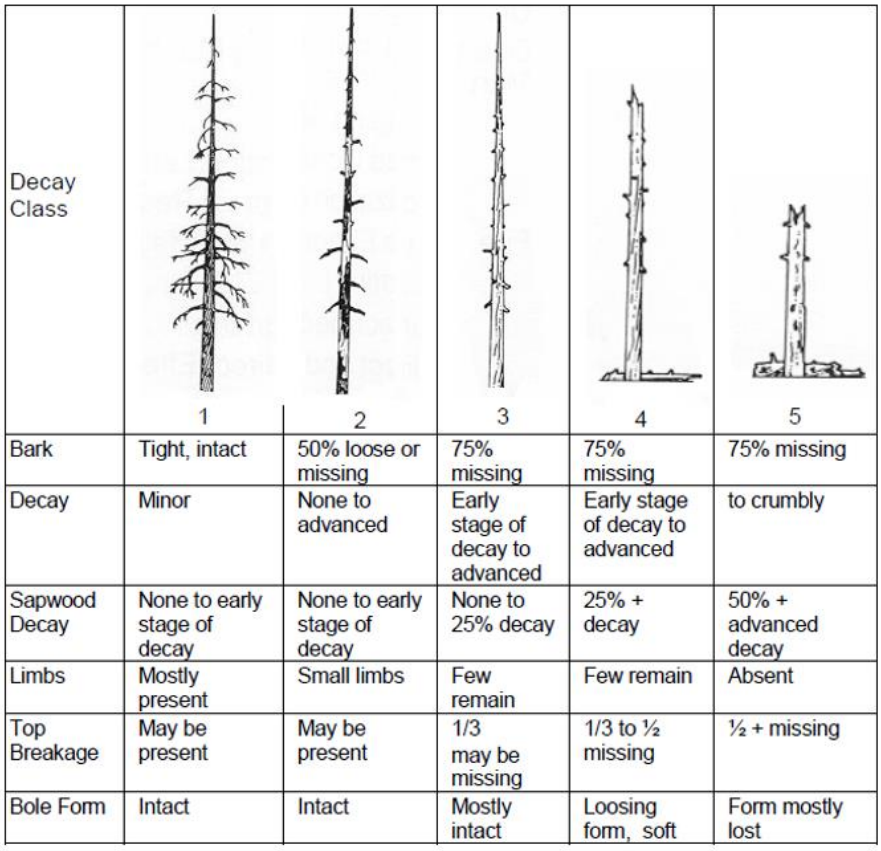
Geodatabase Name	DATE_MEAS
BLM Structured Name	NSO_Nest_Tree_Measured_Date
Inheritance	Not Inherited
Alias Name	Date Measured
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	The date the nest tree was measured. Measurements may occur at a later date than the original location date. Repeat visits to a nest tree will also result in a later measured date.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 4/2/2002, 3/15/2010
Data Type	Date

7.49 DAY_VST

Geodatabase Name	DAY_VST
BLM Structured Name	NSO_Day_Visit_Code
Inheritance	Not Inherited
Alias Name	Day Visit
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	Indicates the general time of day when the visit occurs. The default value for this field is "Night."
Required/Optional	Required
Domain (Valid Values)	dom_NSO_DAY_VST
Data Type	String (5)

7.50 DECAY_CLS

Geodatabase Name	DECAY_CLS
BLM Structured Name	Decay_Class_Code
Inheritance	Inherited from Forest Operations Inventory Vegetation (FOI-VEG)
Alias Name	Decay Class
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	Describes the decomposition characteristics of the nest tree. Decay classes are described in the graphic below. Live trees should be entered as decay class = 0.

	 **Decay Class** 1 = Bark: Tight, intact; Decay: Minor; Sapwood Decay: None to early stage of decay; Limbs: Mostly present; Top Breakage: May be present; Bole Form: Intact 2 = Bark: 50% loose or missing; Decay: None to advanced; Sapwood Decay: None to early stage of decay; Limbs: Small limbs; Top Breakage: May be present; Bole Form: Intact 3 = Bark: 75% missing; Decay: Early stage of decay to advanced; Sapwood Decay: None to 25% decay; Limbs: Few remain; Top Breakage: 1/3 may be missing; Bole Form: Mostly intact 4 = Bark: 75% missing; Decay: Early stage of decay to advanced; Sapwood Decay: 25% + decay; Limbs: Few remain; Top Breakage: 1/3 to ½ missing; Bole Form: Loosing form, soft 5 = Bark: 75% missing; Decay: to crumbly; Sapwood Decay: 50% + advanced decay; Limbs: Absent; Top Breakage: ½ + missing; Bole Form: Form mostly lost
Required/Optional	Optional
Domain (Valid Values)	dom_DECAY_CLASS
Data Type	Short Integer

7.51 DET_DT

Geodatabase Name	DET_DT
BLM Structured Name	Detection_Date
Inheritance	Not Inherited
Alias Name	Detection Date
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	The actual date of the detection. Multiple owl detections on the same visit usually occur on the same date, but for surveys overlapping midnight the actual date of detections may differ. The default value for this field is 1/1/8888.
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: 8/3/2010, 4/12/2017
Data Type	Date

7.52 DET_TIME

Geodatabase Name	DET_TIME
BLM Structured Name	Detection_Time_Text
Inheritance	Not Inherited
Alias Name	Detection Time
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	The time (using Daylight Saving time) of the first detection of the owl. The times are entered in 24-hour clock format. Midnight is recorded as 2400/ 0000; one minute after midnight is 0001.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 0001, 2145, 2400
Data Type	String (4)

7.53 DIST_DFND_1

Geodatabase Name	DIST_DFND_1
BLM Structured Name	NSO_First_District_Defined_Field_Text
Inheritance	Not Inherited
Alias Name	District Defined 1
Feature Class Use/Entity Table	NSO_NEST_TREE_PT, NSO_OWL_OBS_PT, NSO_SITE_PT, NSO_STATION_PT, NSO_RESPONSE_TBL, NSO_SUMMARY_TBL, NSO_VISIT_TBL
Definition	A district defined text field with a length of 255 characters. The District Data Steward will manage these fields as they choose. However, coordination between Districts is desirable if similar information is collected and entered.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (255)

7.54 DIST_DFND_2

Geodatabase Name	DIST_DFND_2
BLM Structured Name	NSO_Second_District_Defined_Field_Text
Inheritance	Not Inherited
Alias Name	District Defined 2
Feature Class Use/Entity Table	NSO_NEST_TREE_PT, NSO_OWL_OBS_PT, NSO_SITE_PT, NSO_STATION_PT, NSO_RESPONSE_TBL, NSO_SUMMARY_TBL, NSO_VISIT_TBL
Definition	A district defined text field with a length of 255 characters. The District Data Steward will manage these fields as they choose. However,

	coordination between Districts is desirable if similar information is collected and entered.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (255)

7.55 DMGRPHY_AREA

Geodatabase Name	DMGRPHY_AREA
BLM Structured Name	NSO_Demography_Area_Code
Inheritance	Not Inherited
Alias Name	Demography Area
Feature Class Use/Entity Table	NSO_SITE_PT
Definition	The name of the demographic study area under the Effectiveness Monitoring Plan for the Northern Spotted Owl (see section 11 of this document for more information on this document). Only record a value in this field if the site falls within a demographic study area.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_DMGRPHY_AREA
Data Type	String (2)

7.56 ELVTN

Geodatabase Name	ELVTN
BLM Structured Name	Elevation_Measure
Inheritance	Not Inherited
Alias Name	Elevation (m)
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	Elevation of the nest tree measured in meters.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 150, 500
Data Type	Short Integer

7.57 ELVTN_SRC

Geodatabase Name	ELVTN_SRC
BLM Structured Name	Elevation_Source_Code
Inheritance	Not Inherited
Alias Name	Elevation Source

Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	Indicates how the elevation of the nest tree was determined. If the elevation (ELVTN) field is not null, then this field is required.
Required/Optional	Conditional
Domain (Valid Values)	dom_ELVTN_SRC
Data Type	String (10)

7.58 END_DT

Geodatabase Name	END_DT
BLM Structured Name	NSO_Response_End_Date
Inheritance	Not Inherited
Alias Name	End Date
Feature Class Use/Entity Table	NSO_RESPONSE_TBL
Definition	The ending date for the response period. The default value for this field is 1/1/8888.
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: 5/6/2022, 10/11/1999
Data Type	Date

7.59 END_TIME

Geodatabase Name	END_TIME
BLM Structured Name	NSO_Response_End_Time_Text
Inheritance	Not Inherited
Alias Name	End Time
Feature Class Use/Entity Table	NSO_RESPONSE_TBL
Definition	The ending time (using Daylight Saving time) of the response period. The times are entered in 24-hour clock format. Midnight is recorded as 2400/ 0000; one minute after midnight is 0001. The default value for this field is 0000.
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: 0001, 2145, 2400
Data Type	String (4)

7.60 FINAL_NEST_REPRO

Geodatabase Name	FINAL_NEST_REPRO
BLM Structured Name	NSO_Final_Nesting_Reproduction_Status_Code

Inheritance	Not Inherited
Alias Name	Final Nesting/Repro
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The final nesting and reproduction status for Northern Spotted Owl species for the summary year. This field summarizes the latest stage of nesting or reproduction at the site during the year.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_FINAL_NEST_REPRO
Data Type	String (2)

7.61 FIRE_SCARS

Geodatabase Name	FIRE_SCARS
BLM Structured Name	NSO_Nest_Tree_Fire_Scars_Code
Inheritance	Not Inherited
Alias Name	Fire Scars
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	Indicates if fire scars are present on the nest tree.
Required/Optional	Optional
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.62 FLW_UP_VST

Geodatabase Name	FLW_UP_VST
BLM Structured Name	NSO_Follow_Up_Visit_Code
Inheritance	Not Inherited
Alias Name	Follow-up Visit
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	Indicates if the visit was conducted in response to a recent owl detection. These surveys should occur as soon as possible after the initial detection and may not cover the entire survey area. The default value for this field is N (No).
Required/Optional	Optional
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.63 GLOBALID

Geodatabase Name	GLOBALID
BLM Structured Name	Global_Unique_Identifier
Inheritance	Not Inherited
Alias Name	None
Feature Class Use/Entity Table	All feature classes and tables
Definition	An alpha-numeric code that serves as the universal and unique identifier for each feature within the feature class or table of a geodatabase. Software generated value. A field of type UUID (Universal Unique Identifier) in which values are automatically assigned by the geodatabase when a row is created. This field is not editable and is automatically populated when it is added for existing data.
Required/Optional	Required
Domain (Valid Values)	No domain. Example: {4747B796-44B4-4628-B069-2D496422E59F}
Data Type	GUID

7.64 GPS

Geodatabase Name	GPS
BLM Structured Name	NSO_Nest_Tree_GPS_Code
Inheritance	Not Inherited
Alias Name	Position GPSd
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	Records if the nest tree location was determined by GPS.
Required/Optional	Optional
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.65 HM_RNGE_DIST

Geodatabase Name	HM_RNGE_DIST
BLM Structured Name	NSO_Home_Range_Distance_Number
Inheritance	Not Inherited
Alias Name	Home Range Distance (mi)
Feature Class Use/Entity Table	NSO_SITE_PT
Definition	The home range radius from the site center as defined in the USFWS Northern Spotted Owl Survey Protocol. This field is required for MSNO sites (SITE_TYPE = 1 - MSNO).
Required/Optional	Conditional.

Domain (Valid Values)	dom_NSO_HM_RNGE_DIST
Data Type	Double

7.66 HYBRID_RSPNSE

Geodatabase Name	HYBRID_RSPNSE
BLM Structured Name	NSO_Hybrid_Response_Code
Inheritance	Not Inherited
Alias Name	Hybrid Response
Feature Class Use/Entity Table	NSO_RESPONSE_TBL
Definition	Indicates if there was a hybrid species response during the calling or recording period.
Required/Optional	Optional
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.67 IDNO

Geodatabase Name	IDNO
BLM Structured Name	NSO_Identification_Number
Inheritance	Not Inherited
Alias Name	Summary IDNO
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	A concatenation of the SITE_NO and LOC_ID values from the parent site record. When there are multiple alternate sites, this narrows down the specific location within the site where summary data has been collected.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 0368O, 0393A, 2290B
Data Type	String (9)

7.68 LAND_OWNR

Geodatabase Name	LAND_OWNR
BLM Structured Name	NSO_Land_Owner_Code
Inheritance	Not Inherited
Alias Name	Landowner
Feature Class Use/Entity Table	NSO_SITE_PT
Definition	The landowner or agency administering the land at the nest site, core area, or point used to designate the site or site alternate. This is the ownership at the

	actual point and may be different from the BLM Administrative Unit (BLM_ORG_CD). The default value for this field is BL (Bureau of Land Management).
Required/Optional	Required
Domain (Valid Values)	dom_JURIS_CODE
Data Type	String (3)

7.69 LOC_ID

Geodatabase Name	LOC_ID
BLM Structured Name	NSO_Location_Identifier
Inheritance	Not Inherited
Alias Name	Location ID
Feature Class Use/Entity Table	NSO_SITE_PT, NSO_SUMMARY_TBL
Definition	This Location Identifier field is also known as the Site Alternate location. A letter code is assigned which indicates the Site Alternate location. When adding a new Site Alternate, the next letter in the sequence is automatically assigned by the program. See the Designating Sites section of this document for information on when the designation of a new location identifier is appropriate. If Site Type (SITE_TYPE) = 1 (MSNO), then LOC_ID is required. All MSNO sites will have at least one site alternate (the original, designated by O in the location ID.
Required/Optional	Conditional.
Domain (Valid Values)	No domain. Examples: O (the original site designation), A (2nd location), B (3rd location)
Data Type	String (1)

7.70 LOC_NAME

Geodatabase Name	LOC_NAME
BLM Structured Name	NSO_Location_Name
Inheritance	Not Inherited
Alias Name	Location Name
Feature Class Use/Entity Table	NSO_SITE_NBR_TBL, NSO_SUMMARY_TBL, NSO_STATION_PT
Definition	Descriptive name for the site location or station. The default value for this field is Unknown.
Required/Optional	Required in NSO_SITE_NBR_TBL and NSO_SUMMARY_TBL. Optional in NSO_STATION_PT.
Domain (Valid Values)	No domain. Examples: PARKER BENCH, Panther Creek 989, SOUTH MYRTLE, UPPER GUILEY
Data Type	String (100)

7.71 MODIFY_BY

Geodatabase Name	MODIFY_BY
BLM Structured Name	Record_Last_Modified_By_Text
Inheritance	Not Inherited
Alias Name	Modified By
Feature Class Use/Entity Table	All feature classes and tables
Definition	The BLM login ID of the person who last edited the data. The default value for this field is UNK. This field is auto populated during editing.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: jdoe, msmith
Data Type	String (50)

7.72 MODIFY_DATE

Geodatabase Name	MODIFY_DATE
BLM Structured Name	Record_Last_Modified_Date
Inheritance	Not Inherited
Alias Name	Modified Date
Feature Class Use/Entity Table	All feature classes and tables
Definition	The date the record was last edited. The default value for this field is 1/1/8888. This field is auto populated during editing.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 1/5/1999, 10/15/2021
Data Type	Date

7.73 MSE_FATE_1

Geodatabase Name	MSE_FATE_1
BLM Structured Name	NSO_Mouse_Fate_1_Code
Inheritance	Not Inherited
Alias Name	Mouse Fate 1
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	Describes what happened to the first mouse offered to an owl during an observation. Codes G, F, M, Z, P, and H may be used to document pair status in the summary table. Be sure to use them when appropriate.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_MSE_FATE

Data Type	String (1)

7.74 MSE_FATE_2

Geodatabase Name	MSE_FATE_2
BLM Structured Name	NSO_Mouse_Fate_2_Code
Inheritance	Not Inherited
Alias Name	Mouse Fate 2
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	Describes what happened to the second mouse offered to an owl during an observation. Codes G, F, M, Z, P, and H may be used to document pair status in the summary table. Be sure to use them when appropriate.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_MSE_FATE
Data Type	String (1)

7.75 MSE_FATE_3

Geodatabase Name	MSE_FATE_3
BLM Structured Name	NSO_Mouse_Fate_3_Code
Inheritance	Not Inherited
Alias Name	Mouse Fate 3
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	Describes what happened to the third mouse offered to an owl during an observation. Codes G, F, M, Z, P, and H may be used to document pair status in the summary table. Be sure to use them when appropriate.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_MSE_FATE
Data Type	String (1)

7.76 MSE_FATE_4

Geodatabase Name	MSE_FATE_4
BLM Structured Name	NSO_Mouse_Fate_4_Code
Inheritance	Not Inherited
Alias Name	Mouse Fate 4
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	Describes what happened to the fourth mouse offered to an owl during an observation. Codes G, F, M, Z, P, and H may be used to document pair status in the summary table. Be sure to use them when appropriate.

Required/Optional	Optional
Domain (Valid Values)	dom_NSO_MSE_FATE
Data Type	String (1)

7.77 MSE_FATE_5

Geodatabase Name	MSE_FATE_5
BLM Structured Name	NSO_Mouse_Fate_5_Code
Inheritance	Not Inherited
Alias Name	Mouse Fate 5
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	Describes what happened to the fifth mouse offered to an owl during an observation. Codes G, F, M, Z, P, and H may be used to document pair status in the summary table. Be sure to use them when appropriate.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_MSE_FATE
Data Type	String (1)

7.78 MSE_FATE_6

Geodatabase Name	MSE_FATE_6
BLM Structured Name	NSO_Mouse_Fate_6_Code
Inheritance	Not Inherited
Alias Name	Mouse Fate 6
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	Describes what happened to the sixth mouse offered to an owl during an observation. Codes G, F, M, Z, P, and H may be used to document pair status in the summary table. Be sure to use them when appropriate.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_MSE_FATE
Data Type	String (1)

7.79 MSE_OFFRD

Geodatabase Name	MSE_OFFRD
BLM Structured Name	NSO_Mouse_Offered_Code
Inheritance	Not Inherited
Alias Name	Mouse Offered
Feature Class Use/Entity Table	NSO_VISIT_TBL

Definition	Indicates if mice were offered during the visit. The default value for this field is "N" (No).
Required/Optional	Required
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.80 MSNO_LIST

Geodatabase Name	MSNO_LIST
BLM Structured Name	NSO_MSNO_List_Text
Inheritance	Not Inherited
Alias Name	MSNO List
Feature Class Use/Entity Table	NSO_STATION_PT
Definition	A comma delimited list of Master Site Number(s) that the station can be used to call to.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 2199, 3903
Data Type	String (40)

7.81 NEST_ENT_ASPCT

Geodatabase Name	NEST_ENT_ASPCT
BLM Structured Name	NSO_Nest_Entrance_Aspect_Measure
Inheritance	Not Inherited
Alias Name	Nest Entrance Aspect
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	The azimuth reading from a compass for the nest entrance. Recorded for side cavities, platform nests, or top cavities where the entrance aspect is obvious.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 0, 90, 352
Data Type	Short Integer

7.82 NEST_HT

Geodatabase Name	NEST_HT
BLM Structured Name	NSO_Nest_Height_Measure
Inheritance	Not Inherited
Alias Name	Nest Height (m)
Feature Class Use/Entity Table	NSO_NEST_TREE_PT

Definition	Height from the ground to the Nest Entrance, if known, measured in meters.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 7, 39, 51
Data Type	Short Integer

7.83 NEST_STTS_SPPRT

Geodatabase Name	NEST_STTS_SPPRT
BLM Structured Name	NSO_Nest_Status_Support_Code
Inheritance	Not Inherited
Alias Name	Nest Status Support
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	Additional information to support the documented nesting status. If more than one value applies, the highest priority supporting condition should be selected. Secondary supporting conditions should be recorded in the notes. If the nesting status (NEST_STTS) field is not null and is not equal to "U" (Unknown), then this field is required. If the OWL_RSPNSE field is set to "N" (No), then "N" (No Data Recorded, includes No Response) is automatically entered in this field.
Required/Optional	Conditional
Domain (Valid Values)	dom_NSO_NEST_STTS_SPPRT
Data Type	String (1)

7.84 NEST_TREE_LOC

Geodatabase Name	NEST_TREE_LOC
BLM Structured Name	NSO_Nest_Tree_Location_Code
Inheritance	Not Inherited
Alias Name	Nest Tree Location
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	Indicates the location of the nest tree. This field is only populated if the Nesting Status (NEST_STTS) equals "I" (Incubation or brooding), "O" (Nestlings or branchers are detected or suspected) or "F" (Fledglings observed). If a visit record has a nest tree located, that nest tree must be entered into the NSO_NEST_TREE_PT feature class.
Required/Optional	Conditional
Domain (Valid Values)	dom_NSO_NEST_TREE_LOC
Data Type	String (1)

7.85 NEST_TYPE

Geodatabase Name	NEST_TYPE
BLM Structured Name	NSO_Nest_Type_Code
Inheritance	Not Inherited
Alias Name	Nest Type
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	Describes the type of nest.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_NEST_TYPE
Data Type	String (20)

7.86 NSTNG_STTS

Geodatabase Name	NSTNG_STTS
BLM Structured Name	NSO_Visit_Nesting_Status_Code
Inheritance	Not Inherited
Alias Name	Summary Nesting Status
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	The nesting status for the site based only on the information gathered during the visit. Does not consider cumulative information from previous survey visits. If owl response (OWL_RSPNSE) equals "Y" (Yes), then this field is required. If OWL_RSPNSE equals "N" (No), then this field is set to "NR" (No Response).
Required/Optional	Conditional
Domain (Valid Values)	dom_NSO_NSTNG_STTS
Data Type	String (2)

7.87 NSTNG_STTS_SUM

Geodatabase Name	NSTNG_STTS_SUM
BLM Structured Name	NSO_Summary_Nesting_Status_Code
Inheritance	Not Inherited
Alias Name	Summary Nesting Status
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The nesting status for the summary year.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_NSTNG_STTS_SUM

Data Type	String (2)

7.88 NT_GUID

Geodatabase Name	NT_GUID
BLM Structured Name	Nest_Tree_Global_Unique_Identifier
Inheritance	Not Inherited
Alias Name	Nest Tree Unique ID
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	The unique identifier for the Nest Tree record.
Required/Optional	Required
Domain (Valid Values)	No domain. Example: {4747B796-44B4-4628-B069-2D496422E59F}
Data Type	GUID

7.89 NUM_DAY_VST

Geodatabase Name	NUM_DAY_VST
BLM Structured Name	NSO_Summary_Day_Visits_Number
Inheritance	Not Inherited
Alias Name	Day Visits
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The number of day visits to the site during the year. These visits do not include the opportunistic or incomplete "Additional" visits.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 1, 3, 5
Data Type	Short Integer

7.90 NUM_FEM

Geodatabase Name	NUM_FEM
BLM Structured Name	NSO_Summary_Females_Number
Inheritance	Not Inherited
Alias Name	Females
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The maximum number of females present at the site during the year. Only includes Northern Spotted Owls for the designated site.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 0, 1

Data Type	Short Integer

7.91 NUM_FLDGLNG

Geodatabase Name	NUM_FLDGLNG
BLM Structured Name	NSO_Summary_Fledglings_Number
Inheritance	Not Inherited
Alias Name	Fledglings
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The maximum number of fledglings detected audibly or visually at the site during the year. Only includes Northern Spotted Owls for the designated site. Fledglings are defined as young that have left the nest tree.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 0, 1, 2
Data Type	Short Integer

7.92 NUM_JUV

Geodatabase Name	NUM_JUV
BLM Structured Name	NSO_Summary_Juveniles_Number
Inheritance	Not Inherited
Alias Name	Juveniles
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The maximum number of juveniles detected audibly or visually at the site during the year. Only includes Northern Spotted Owls for the designated site.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 0, 1, 2
Data Type	Short Integer

7.93 NUM_MALE

Geodatabase Name	NUM_MALE
BLM Structured Name	NSO_Summary_Males_Number
Inheritance	Not Inherited
Alias Name	Males
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The maximum number of males present at the site during the year. Only includes Northern Spotted Owls for the designated site.

Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 0, 1, 2
Data Type	Short Integer

7.94 NUM_MSE_TKN

Geodatabase Name	NUM_MSE_TKN
BLM Structured Name	NSO_Mice_Taken_Number
Inheritance	Not Inherited
Alias Name	Num Mice Taken
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	The number of prey taken by all birds at the site during the visit. If an owl picks up a previously cached item, consider it as prey taken. If an owl drops a prey item while attempting to capture it, do not consider it taken. However, if the dropped prey item is being fed to other owls or has been in the owl's possession for an extended time, consider it taken. If you offered prey but the owls did not take any, enter 0.The fate of each prey item is recorded within the NSO_OWL_OBS_PT feature class. If mouse offered (MSE_OFFRD) = "Y" (Yes), then this field is required.
Required/Optional	Conditional
Domain (Valid Values)	No domain. Examples: 7, 10,12
Data Type	Short Integer

7.95 NUM_NGHT_VST

Geodatabase Name	NUM_NGHT_VST
BLM Structured Name	NSO_Summary_Day_Visits_Number
Inheritance	Not Inherited
Alias Name	Night Visits
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The number of night visits to the site during the year. These visits do not include the opportunistic or incomplete "Additional" visits. Night visits include visits spanning day and night if the majority of the survey occurred during the night.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 2, 3, 5
Data Type	Short Integer

7.96 NUM_UNK

Geodatabase Name	NUM_UNK

BLM Structured Name	NSO_Summary_Unknowns_Number
Inheritance	Not Inherited
Alias Name	Unknowns
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The maximum number of non-juveniles at the site during the year where the sex is not determined. This field is only used if the number of unknown sex birds exceeds the number of known sex birds. Only includes Northern Spotted Owls for the designated site.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 0, 2, 5
Data Type	Short Integer

7.97 OBS_TYPE

Geodatabase Name	OBS_TYPE
BLM Structured Name	NSO_Observation_Type_Code
Inheritance	Not Inherited
Alias Name	Observation Type
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	Designates how the owl was observed. The default value for this field is AN (Auditory, no bands read).
Required/Optional	Required
Domain (Valid Values)	dom_NSO_OBS_TYPE
Data Type	String (2)

7.98 OBSRVR

Geodatabase Name	OBSRVR
BLM Structured Name	NSO_Observer_Name
Inheritance	Not Inherited
Alias Name	Observer
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	Name of the person who measured the Nest Tree. Format entries with Last Name only (in capital letters) unless it is a very common last name. For common last names, use Last name, First initial. (e.g., John Smith = SMITH, J.). Try to be consistent to allow for easier queries of this field.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: "SMITH, J", "DOE"
Data Type	String (30)

7.99 OBSRVR_1

Geodatabase Name	OBSRVR_1
BLM Structured Name	NSO_First_Observer_Name
Inheritance	Not Inherited
Alias Name	1st Observer
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	Name of the person who conducted the visit. Only two observers are recorded per visit. Format entries with Last Name only (in capital letters) unless it is a very common last name. For common last names, use Last name, First initial. (e.g., John Smith = SMITH, J.). Try to be consistent to allow for easier queries of this field. The default value for this field is "Unk" (Unknown).
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: "SMITH, J", "DOE"
Data Type	String (30)

7.100 OBSRVR_2

Geodatabase Name	OBSRVR_2
BLM Structured Name	NSO_Second_Observer_Name
Inheritance	Not Inherited
Alias Name	2nd Observer
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	The name of the second person who conducted the visit. Only entered if there is more than one observer. Format entries with Last Name only (in capital letters) unless it is a very common last name. For common last names, use Last name, First initial. (e.g., John Smith = SMITH, J.). Try to be consistent to allow for easier queries of this field.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: "SMITH, J", "DOE"
Data Type	String (30)

7.101 OBSRVR_AFLTN

Geodatabase Name	OBSRVR_AFLTN
BLM Structured Name	NSO_Observer_Affiliation_Code
Inheritance	Not Inherited
Alias Name	Observer Affiliation
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	The company or organization with which the observer belongs to, if not a BLM employee. Affiliations include contractors and cooperators.

	This field is controlled by a domain to improve consistency in values entered. Contact the data steward to request new affiliations be added to the list.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_AFLTN
Data Type	String (100)

7.102 ORIG_LCTR

Geodatabase Name	ORIG_LCTR
BLM Structured Name	NSO_Original_Locator_Name
Inheritance	Not Inherited
Alias Name	Original Locator
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	Name of the person who originally located the Nest Tree. Format entries with Last Name only (in capital letters) unless it is a very common last name. For common last names, use Last name, First initial. (e.g., John Smith = SMITH, J.). Try to be consistent to allow for easier queries of this field. The default value for this field is Unknown."
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: "SMITH, J", "DOE"
Data Type	String (50)

7.103 OTHR_SPCS_DET

Geodatabase Name	OTHR_SPCS_DET
BLM Structured Name	NSO_Other_Species_Detected_Code
Inheritance	Not Inherited
Alias Name	Other Species Detected 1
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	Records the first other species of owl detected that is different from the species surveyed for (SPCS_SRCHD). Only owl species represented in this dataset are included in this list. Additional observations of owls should be recorded in the wildlife observations dataset (FAUNA_OBS_PT).
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_SPCS
Data Type	String (4)

7.104 OTHR_SPCS_DET_2

Geodatabase Name	OTHR_SPCS_DET_2

BLM Structured Name	NSO_Second_Other_Species_Detected_Code
Inheritance	Not Inherited
Alias Name	Other Species Detected 2
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	Records the second other species of owl detected that is different from the species surveyed for (SPCS_SRCHD). Only owl species represented in this dataset are included in the list. Additional observations of owls should be recorded in the wildlife observations dataset (FAUNA_OBS_PT). Can also be used in cases where barred owls are detected at two different BSNO locations.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_SPCS
Data Type	String (4)

7.105 OWL_OBS_GUID

Geodatabase Name	OWL_OBS_GUID
BLM Structured Name	Owl_Observation_Global_Unique_Identifier
Inheritance	Not Inherited
Alias Name	Owl Obs Unique ID
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	The unique identifier for the Owl Observation record.
Required/Optional	Required
Domain (Valid Values)	No domain. Example: {4747B796-44B4-4628-B069-2D496422E59F}
Data Type	GUID

7.106 OWL_RSPNSE

Geodatabase Name	OWL_RSPNSE
BLM Structured Name	NSO_Owl_Response_Code
Inheritance	Not Inherited
Alias Name	Response
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	Records if there was a detection of the owl species surveyed for. The default value for this field is "N" (No).
Required/Optional	Required
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.107 OWL_SEX

Geodatabase Name	OWL_SEX
BLM Structured Name	NSO_Owl_Gender_Code
Inheritance	Not Inherited
Alias Name	Sex
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	The gender of the observed owl. The default value for this field is U (Unknown).
Required/Optional	Required
Domain (Valid Values)	dom_NSO_OWL_SEX
Data Type	String (1)

7.108 OWL_SPCS

Geodatabase Name	OWL_SPCS
BLM Structured Name	NSO_Owl_Species_Code
Inheritance	Not Inherited
Alias Name	Owl Species
Feature Class Use/Entity Table	NSO_OWL_OBS_PT, NSO_SUMMARY_TBL
Definition	The short code for the owl species detected. The default value for this field is STOC (Northern spotted owl).
Required/Optional	Required
Domain (Valid Values)	dom_NSO_SPCS
Data Type	String (4)

7.109 PAIR_STTS

Geodatabase Name	PAIR_STTS
BLM Structured Name	NSO_Visit_Pair_Status_Code
Inheritance	Not Inherited
Alias Name	Pair Status
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	The status of any birds detected during the current visit. Do not use cumulative information from throughout the year to determine on how to code. If the owl response (OWL_RSPNSE) equals "Y" (Yes), then this field is required.
Required/Optional	Conditional
Domain (Valid Values)	dom_NSO_PAIR_STTS
Data Type	String (1)

7.110 PAIR_STTS_FWS

Geodatabase Name	PAIR_STTS_FWS
BLM Structured Name	NSO_Summary_Pair_Status_FWS_Code
Inheritance	Not Inherited
Alias Name	Summary Pair Status FWS
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	Occupancy status as determined using the 2011 (revised 2012) USFWS survey protocol. All determinations (except Unknown) must meet sufficient survey standards within this protocol. A single character code which lists the Pair Status for the IDNO for the summary year. For sites with an owl confirmed at another site, both sites will be summarized as occupied. Manually edit the summary table with comments regarding possible duplicate occupation, the need to combine nesting or reproduction, or justification for limited surveys at one of the sites. The default value for this field is "U" (Unknown).
Required/Optional	Required
Domain (Valid Values)	dom_NSO_PAIR_STTS_FWS
Data Type	String (1)

7.111 PAIR_STTS_SUM

Geodatabase Name	PAIR_STTS_SUM
BLM Structured Name	NSO_Summary_Pair_Status_Code
Inheritance	Not Inherited
Alias Name	Summary Pair Status
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	A single character code which lists the Pair Status for the site for the summary year. For sites with an owl confirmed at another site, both sites will be summarized as occupied. Manually edit the summary table with comments regarding possible duplicate occupation, the need to combine nesting or reproduction, or justification for limited surveys at one of the sites. Since only STOC is summarized by the application, any visits with a species STMX (mixed species, one pure spotted owl) or STUN (unknown Strix) will need manual edits.
Required/Optional	Conditional
Domain (Valid Values)	dom_NSO_PAIR_STTS_SUM
Data Type	String (1)

7.112 PRECIP_CND

Geodatabase Name	PRECIP_CND

BLM Structured Name	NSO_Precipitation_Condition_Code
Inheritance	Not Inherited
Alias Name	Precipitation
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	Describes the predominant precipitation condition during the visit.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_PRECIP_CND
Data Type	String (20)

7.113 PRMNT_WTR_DIST

Geodatabase Name	PRMNT_WTR_DIST
BLM Structured Name	NSO_Permanent_Water_Distance_Measure
Inheritance	Not Inherited
Alias Name	Dist. to Permanent Water (m)
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	Distance to the nearest permanent water measured in meters. Measure the distance from the Nest Tree to the Nearest Permanent Water source described in the Permanent Water Type field. Pace or use tape measure in the field or use topographic map to the nearest ten meters (30 feet).
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 200, 725, 1326
Data Type	Short Integer

7.114 PRMNT_WTR_TYPE

Geodatabase Name	PRMNT_WTR_TYPE
BLM Structured Name	NSO_Permanent_Water_Type_Code
Inheritance	Not Inherited
Alias Name	Permanent Water Type
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	The permanent water type measure to in the distance to permanent water field. If the distance to permanent water (PRMNT_WTR_DIST) field is not null, then this field is required.
Required/Optional	Conditional
Domain (Valid Values)	dom_NSO_WTR_TYPE
Data Type	String (30)

7.115 PROJ_NAME

Geodatabase Name	PROJ_NAME
BLM Structured Name	NSO_Project_Name
Inheritance	Not Inherited
Alias Name	Project Name
Feature Class Use/Entity Table	NSO_STATION_PT
Definition	The name of the project area associated with the station.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: EASTER RIDGE, PARKER BENCH
Data Type	String (100)

7.116 RCRD_STTS

Geodatabase Name	RCRD_STTS
BLM Structured Name	NSO_Summary_Record_Status_Code
Inheritance	Not Inherited
Alias Name	Record Status
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	Indicates if the summary record has been user edited, and if so, how.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_RCRD_STTS
Data Type	String (1)

7.117 REPRO_SUCC

Geodatabase Name	REPRO_SUCC
BLM Structured Name	NSO_Summary_Reproductive_Success_Code
Inheritance	Not Inherited
Alias Name	Repro Success
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	Records the reproductive success for Northern Spotted Owls during the summary year.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_REPRO_SUCC
Data Type	String (2)

7.118 RSPNSE_AZMTH

Geodatabase Name	RSPNSE_AZMTH
BLM Structured Name	NSO_Response_Azimuth_Number
Inheritance	Not Inherited
Alias Name	Response Bearing
Feature Class Use/Entity Table	NSO_RESPONSE_TBL
Definition	The compass azimuth of the owl response from the station. Acceptable values for this field are numbers between 0 – 360.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 1, 90, 360
Data Type	Short Integer

7.119 RSPNSE_DIST

Geodatabase Name	RSPNSE_DIST
BLM Structured Name	NSO_Response_Distance_Number
Inheritance	Not Inherited
Alias Name	Response Distance (meters)
Feature Class Use/Entity Table	NSO_RESPONSE_TBL
Definition	Distance in meters to the response location.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples:100, 250
Data Type	Short Integer

7.120 SCNDRY_TOPS

Geodatabase Name	SCNDRY_TOPS
BLM Structured Name	NSO_Nest_Tree_Secondary_Tops_Number
Inheritance	Not Inherited
Alias Name	Num Secondary Tops
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	The number of secondary tops in the top of the nest tree. Secondary tops are large, erect branches.
Required/Optional	Optional
Domain (Valid Values)	No domain. 0, 2, 3
Data Type	Short Integer

7.121 SITE_GUID

Geodatabase Name	SITE_GUID
BLM Structured Name	Site_Global_Unique_Identifier
Inheritance	Not Inherited
Alias Name	Site Unique ID
Feature Class Use/Entity Table	NSO_NEST_TREE_PT, NSO_SITE_PT, NSO_SUMMARY_TBL, NSO_VISIT_TBL
Definition	The unique identifier for the Site record. Used to relate Site records to other feature classes and tables.
Required/Optional	Required
Domain (Valid Values)	No domain. Example: {4747B796-44B4-4628-B069-2D496422E59F}
Data Type	GUID

7.122 SITE_NO

Geodatabase Name	SITE_NO
BLM Structured Name	Northern_Spotted_Owl_Site_Number_Text
Inheritance	Not Inherited
Alias Name	Site Number
Feature Class Use/Entity Table	NSO_SITE_PT, NSO_SITE_NBR_TBL, NSO_SUMMARY_TBL
Definition	A unique number assigned to each site. For NSO Sites, a unique 4-digit Master Site Number is assigned to each designated site under a statewide numbering system coordinated by the Oregon Department of Fish and Wildlife (ODFW), Northwest Region Office. Obtain new numbers from the Corvallis office of the ODFW (737-4186). When determining whether to designate a new site, be sure to check the location (T R Sec), as well as the name, to avoid duplication. The default value for this field is 0.
Required/Optional	Required
Domain (Valid Values)	For NSO_SITE_PT, the following domains apply: dom_NSO_MSNO dom_NSO_TSNO dom_NSO_BSNO The value entered in the SITE_TYPE field controls which domain appears in this field.
Data Type	String (8)

7.123 SITE_SPCS

Geodatabase Name	SITE_SPCS
BLM Structured Name	NSO_Site_Species_Code

Inheritance	Not Inherited
Alias Name	Site Species
Feature Class Use/Entity Table	NSO_SITE_PT
Definition	Enter the appropriate code. Be aware that although these codes are currently available, the site table applies primarily to spotted owls; any other species entry should be in addition to an entry for spotted owls.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_SPCS
Data Type	String (4)

7.124 SITE_TYPE

Geodatabase Name	SITE_TYPE
BLM Structured Name	NSO_Site_Type_Code
Inheritance	Not Inherited
Alias Name	Site Type
Feature Class Use/Entity Table	NSO_SITE_PT, NSO_SITE_NBR_TBL
Definition	Site points must be either be a Northern Spotted Owl Site (MSNO), a Barred Owl Site (BSNO), or a TSNO (Temporary Site). This field is a geodatabase subtype field. The value selected in this field control which domain is used in the SITE_NO field. The default value for this field is 1 (MSNO).
Required/Optional	Required. Does not appear as required in the database. Enforced during data quality control.
Domain (Valid Values)	dom_NSO_SITE_TYPE
Data Type	Short Integer

7.125 SLOPE

Geodatabase Name	SLOPE
BLM Structured Name	Slope_Percent_Measurement
Inheritance	Not Inherited
Alias Name	Percent Slope
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	The slope (how steep) of the ground at the nest tree. The average of two clinometer readings taken when standing by the nest tree. One reading is taken uphill and one is taken downhill. The measurement is recording in percent (decimal). 100% slope equals 45 degrees.
Required/Optional	Optional
Domain (Valid Values)	No domain. 182, 200, 294
Data Type	Double

7.126 SLOPE_PSTN

Geodatabase Name	SLOPE_PSTN
BLM Structured Name	Slope_Position_Code
Inheritance	Not Inherited
Alias Name	Slope Position
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	Describes the location on the slope where the nest tree is located.
Required/Optional	Optional
Domain (Valid Values)	dom_SLOPE_PSTN
Data Type	String (30)

7.127 SMRY_GUID

Geodatabase Name	SMRY_GUID
BLM Structured Name	Summary_Global_Unique_Identifier
Inheritance	Not Inherited
Alias Name	Summary Unique ID
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	The unique identifier for the Summary record.
Required/Optional	Required
Domain (Valid Values)	No domain. Example: {4747B796-44B4-4628-B069-2D496422E59F}
Data Type	GUID

7.128 SMRY_YEAR

Geodatabase Name	SMRY_YEAR
BLM Structured Name	NSO_Summary_Year_Text
Inheritance	Not Inherited
Alias Name	Summary Year
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	Represents the year the summary data was generated.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 2022, 1999
Data Type	String (4)

7.129 SOURCE

Geodatabase Name	SOURCE
BLM Structured Name	NSO_Station_Source_Text
Inheritance	Not Inherited
Alias Name	Source
Feature Class Use/Entity Table	NSO_STATION_PT
Definition	The originator of the station data. Useful for tracking data from external sources such as cooperators.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: SR VIRTUAL, BLM-ORN02
Data Type	String (30)

7.130 SPCS_SRCHD

Geodatabase Name	SPCS_SRCHD
BLM Structured Name	NSO_Species_Surveyed_For_Code
Inheritance	Not Inherited
Alias Name	Species Surveyed For
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	The target species for the survey visit. Enter the appropriate code. Be aware that these codes apply to the visit (not an individual owl); therefore, the STMX code is only valid in the visit form. If surveying for STOC or STVA, and another species is opportunistically detected, at least two visit cards will be recorded for that survey. There will always be an entry for the species surveyed for (even if there is no response) and the other species detected will be entered using the appropriate species code. In situations when STOC is the opportunistic detection, such as conducting Great Gray Owl surveys, there would only be positive survey data for STOC. The default value for this field is "STOC" (Northern Spotted Owl).
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_SPCS
Data Type	String (4)

7.131 SRV_AREA_CMPLTD

Geodatabase Name	SRV_AREA_CMPLTD
BLM Structured Name	NSO_Survey_Area_Completed_Code
Inheritance	Not Inherited
Alias Name	Survey Area Completed
Feature Class Use/Entity Table	NSO_VISIT_TBL

Definition	Indicates if the entire area of interest was completely surveyed. If two or more visits are required to completely survey the area (the USFWS protocol allows combined visits within a 7-day period), a Yes will be entered for the final visit and a No will be entered for the earlier visits. Some surveys will determine occupancy without ever surveying the entire area, a No will be entered.
Required/Optional	Optional
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.132 SRV_MTHD

Geodatabase Name	SRV_MTHD
BLM Structured Name	NSO_First_Survey_Method_Code
Inheritance	Not Inherited
Alias Name	Survey Method 1
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	Method used to determine presence of owls at the survey location.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_SRV_MTHD
Data Type	String (1)

7.133 SRV_MTHD_2

Geodatabase Name	SRV_MTHD_2
BLM Structured Name	NSO_Second_Survey_Method_Code
Inheritance	Not Inherited
Alias Name	Survey Method 2
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	The second (if any) method used to determine presence of owls at the survey location.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_SRV_MTHD
Data Type	String (1)

7.134 SRV_TYPE

Geodatabase Name	SRV_TYPE
BLM Structured Name	NSO_Survey_Type_Code
Inheritance	Not Inherited

Alias Name	Survey Type
Feature Class Use/Entity Table	NSO_RESPONSE_TBL
Definition	The type of survey performed at the station. Used to differentiate between traditional callback (short duration) and automated recordings (longer duration). The default value for this field is Callback.
Required/Optional	Required
Domain (Valid Values)	dom_NSO_SRV_TYPE
Data Type	String (10)

7.135 STOC_RSPNSE

Geodatabase Name	STOC_RSPNSE
BLM Structured Name	NSO_Response_Code
Inheritance	Not Inherited
Alias Name	STOC Response
Feature Class Use/Entity Table	NSO_RESPONSE_TBL
Definition	Records if there was a response from a northern spotted owl during the calling or recording period. STOC is the short species code for this species.
Required/Optional	Required
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.136 STRCTRL_EDGE_DIST

Geodatabase Name	STRCTRL_EDGE_DIST
BLM Structured Name	NSO_Structural_Distance_Measure
Inheritance	Not Inherited
Alias Name	Distance Structure Edge
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	The distance to the nearest different type of habitat (structural edge) from the nest tree, measured in meters. Measured on the ground or by using a recent habitat map, if available.
Required/Optional	Optional
Domain (Valid Values)	No domain. 40, 138, 400
Data Type	Short Integer

7.137 STRCTRL_EDGE_TYPE

Geodatabase Name	STRCTRL_EDGE_TYPE

BLM Structured Name	NSO_Structural_Edge_Type_Code
Inheritance	Not Inherited
Alias Name	Structural Edge Type
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	Describes the nearest different type of habitat (structural edge) from the nest tree. If the distance to structural edge (STRCTRL_EDGE_DIST) field is not null, then this field is required.
Required/Optional	Conditional
Domain (Valid Values)	dom_NSO_STRCTRL_EDGE_TYPE
Data Type	String (20)

7.138 STRT_DT

Geodatabase Name	STRT_DT
BLM Structured Name	NSO_Response_Start_Date
Inheritance	Not Inherited
Alias Name	Start Date
Feature Class Use/Entity Table	NSO_RESPONSE_TBL
Definition	The starting date for the response period. The default value for this field is 1/1/8888.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 5/6/2022, 10/11/1999
Data Type	Date

7.139 STRT_TIME

Geodatabase Name	STRT_TIME
BLM Structured Name	NSO_Response_Start_Time_Text
Inheritance	Not Inherited
Alias Name	Start Time
Feature Class Use/Entity Table	NSO_RESPONSE_TBL
Definition	The starting time (using Daylight Saving time) of the station period. The times are entered in 24-hour clock format. Midnight is recorded as 2400/ 0000; one minute after midnight is 0001. The default value for this field is 0000.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 0001, 2145, 2400
Data Type	String (4)

7.140 STTN_GROUP

Geodatabase Name	STTN_GROUP
BLM Structured Name	NSO_Station_Group_Text
Inheritance	Not Inherited
Alias Name	Group
Feature Class Use/Entity Table	NSO_STATION_PT
Definition	Attribute to divide stations into logical groups. Historic data is typically grouped into Contract Task Order year.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: MarysPeak TO-2016, TILLAMOOK-2019
Data Type	String (30)

7.141 STTN_GUID

Geodatabase Name	STTN_GUID
BLM Structured Name	Station_Global_Unique_Identifier
Inheritance	Not Inherited
Alias Name	Station Unique ID
Feature Class Use/Entity Table	NSO_STATION_PT, NSO_RESPONSE_TBL
Definition	The unique identifier for the Station record. Used to relate Station records to other feature classes and tables.
Required/Optional	Required
Domain (Valid Values)	No domain. Example: {4747B796-44B4-4628-B069-2D496422E59F}
Data Type	GUID

7.142 STTN_ID

Geodatabase Name	STTN_ID
BLM Structured Name	NSO_Station_Identifier
Inheritance	Not Inherited
Alias Name	Station ID
Feature Class Use/Entity Table	NSO_STATION_PT
Definition	Informational label for the station. The default value for this field is Unknown.
Required/Optional	Required
Domain (Valid Values)	No domain. 1987-04, 03S-06W-35.01
Data Type	String (50)

7.143 STUN_RSPNSE

Geodatabase Name	STUN_RSPNSE
BLM Structured Name	NSO_Unknown_Species_Owl_Response_Code
Inheritance	Not Inherited
Alias Name	STUN Response
Feature Class Use/Entity Table	NSO_RESPONSE_TBL
Definition	Records if there was a response from an unknown species of owl during the calling or recording period. STUN is the short species code for unknown owls.
Required/Optional	Optional
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.144 STVA_DET

Geodatabase Name	STVA_DET
BLM Structured Name	Barred_Owl_Detected_Code
Inheritance	Not Inherited
Alias Name	Barred Owl Detected
Feature Class Use/Entity Table	NSO_SUMMARY_TBL
Definition	Indicates if at least one barred owl was detected at the site during the survey year. There should be at least one visit record for the site in the current summary year with OTHR_SPCS_DET (Other Species Detected) = "STVA" (Barred Owl).
Required/Optional	Optional
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.145 STVA_RSPNSE

Geodatabase Name	STVA_RSPNSE
BLM Structured Name	NSO_Barred_Owl_Response_Code
Inheritance	Not Inherited
Alias Name	STVA Response
Feature Class Use/Entity Table	NSO_RESPONSE_TBL
Definition	Records if there was a response from a barred owl during the calling or recording period. STVA is the short species code for Barred Owls.
Required/Optional	Optional
Domain (Valid Values)	dom_YN

Data Type	String (1)

7.146 TAB_CLR

Geodatabase Name	TAB_CLR
BLM Structured Name	NSO_Band_Tab_Color_Code
Inheritance	Not Inherited
Alias Name	Tab Color
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	The color of the band tab if tabs are being used.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_TAB_CLR
Data Type	String (3)

7.147 TAG

Geodatabase Name	TAG
BLM Structured Name	NSO_Nest_Tree_Tag_Code
Inheritance	Not Inherited
Alias Name	Nest Tree Tagged
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	Indicates if the nest tree has a permanent tag attached to it. The default value for this field is U (Unknown).
Required/Optional	Required
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.148 TAG_ID

Geodatabase Name	TAG_ID
BLM Structured Name	NSO_Nest_Tree_Tag_Identifier
Inheritance	Not Inherited
Alias Name	Tag ID
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	If the nest tree is tagged, the identifier assigned. Typically, this is the site number followed by the last two digits of the first year of documented use. For example, MSNO 3268, first documented nesting in 2011 has a tag id of 326811.
Required/Optional	Optional

Domain (Valid Values)	No domain. Examples: 051315, 0101 2021
Data Type	String (50)

7.149 TAIL_TIP_CLR

Geodatabase Name	TAIL_TIP_CLR
BLM Structured Name	NSO_Tail_Tip_Color_Code
Inheritance	Not Inherited
Alias Name	Tail Tip Color
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	Describes the color of the owl tail tip. Under good conditions, it can be determined if the bird is perched nearby, without capture. Data is only recorded when the observer views the color and previous visit information should not be used to make the determination. Used in age class determination.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_TAIL_TIP_CLR
Data Type	String (10)

7.150 TAIL_TIP_SHP

Geodatabase Name	TAIL_TIP_SHP
BLM Structured Name	NSO_Tail_Tip_Shape_Code
Inheritance	Not Inherited
Alias Name	Tail Tip Shape
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	Describes the shape of the owl tail tip. Used to differentiate between the age of a sub-adult (1 year vs 2-year-old) owl and adult (3+ year old) owls.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_TAIL_TIP_SHP
Data Type	String (10)

7.151 TLMTRY

Geodatabase Name	TLMTRY
BLM Structured Name	NSO_Telemetry_Code
Inheritance	Not Inherited
Alias Name	Telemetry
Feature Class Use/Entity Table	NSO_OWL_OBS_PT

Definition	Records if radio telemetry was used to locate the owl observed. The default value for this field is "N" (No).
Required/Optional	Optional
Domain (Valid Values)	dom_YN
Data Type	String (1)

7.152 TOP_PRMRY_CLR

Geodatabase Name	TOP_PRMRY_CLR
BLM Structured Name	NSO_Top_Primary_Band_Color
Inheritance	Not Inherited
Alias Name	Top/Primary Color
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	The main color of the band, or for bicolored bands, the top color.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_TOP_PRMRY_CLR
Data Type	String (3)

7.153 TREE_DBH

Geodatabase Name	TREE_DBH
BLM Structured Name	NSO_Nest_Tree_Diameter_Breast_Height_Measure
Inheritance	Not Inherited
Alias Name	Tree DBH (cm)
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	The nest tree diameter at breast height using a DBH tape.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 61, 179
Data Type	Double

7.154 TREE_HT

Geodatabase Name	TREE_HT
BLM Structured Name	NSO_Tree_Height_Measure
Inheritance	Not Inherited
Alias Name	Tree Height
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	The total height of the nest tree in meters, measured from the ground to the top of the tree.

Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 19, 32, 47
Data Type	Short Integer

7.155 TREE_SPCS

Geodatabase Name	TREE_SPCS
BLM Structured Name	NSO_Nest_Tree_Species_Code
Inheritance	Not Inherited
Alias Name	Tree Species
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	The accepted symbol from the USDA Plants database for the species of tree that the nest resides in. The default value for this field is UNKN (Unknown).
Required/Optional	Required
Domain (Valid Values)	dom_NSO_TREE_SPCS
Data Type	String (7)

7.156 TSNO_LIST

Geodatabase Name	TSNO_LIST
BLM Structured Name	NSO_TSNO_List_Text
Inheritance	Not Inherited
Alias Name	TSNO List
Feature Class Use/Entity Table	NSO_STATION_PT
Definition	A comma delimited list of Temporary Site Number(s) that the station can be used to call to.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 9810T, 9459T
Data Type	String (40)

7.157 USFWS_BAND_LEG

Geodatabase Name	USFWS_BAND_LEG
BLM Structured Name	NSO_USFWS_Band_Leg_Code
Inheritance	Not Inherited
Alias Name	USFWS Leg
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	If the observed owl has a U.S. Fish and Wildlife Service band, this field records the leg that the band appears on.

Required/Optional	Optional
Domain (Valid Values)	dom_NSO_BAND_LEG
Data Type	String (1)

7.158 USFWS_BAND_NUM

Geodatabase Name	USFWS_BAND_NUM
BLM Structured Name	NSO_USFWS_Band_Number
Inheritance	Not Inherited
Alias Name	USFWS Band Number
Feature Class Use/Entity Table	NSO_OWL_OBS_PT
Definition	The U.S. Fish and Wildlife Service band number that appears on an observed owl. Includes leading zeros and a dash.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 0877-06014, 1387-15501
Data Type	String (10)

7.159 VERSION_NAME

Geodatabase Name	VERSION_NAME
BLM Structured Name	Geodatabase_Version_Text
Inheritance	Inherited from entity ODF
Alias Name	Version Name
Feature Class Use/Entity Table	All feature classes and tables
Definition	Only appears in the transactional (edit) version. Public version (which is also the version used internally for mapping or analysis) does not contain this attribute. Name of the corporate geodatabase version previously used to edit the record. InitialLoad = feature has not been edited in ArcSDE. Format: username.XXX-mmddyy-hhmmss = version name of last edit (hours might be a single digit; leading zeros are trimmed for hours only). XXX=theme abbreviation.
Required/Optional	Optional
Domain (Valid Values)	No domain
Data Type	String (50)

7.160 VST_DT

Geodatabase Name	VST_DT
BLM Structured Name	NSO_Visit_Date
Inheritance	Not Inherited
Alias Name	Visit Date
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	The date the visit was initiated. The default value for this field is 1/1/8888.
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: 8/16/2022, 5/1/1999
Data Type	Date

7.161 VST_END_TIME

Geodatabase Name	VST_END_TIME
BLM Structured Name	NSO_Visit_End_Time_Text
Inheritance	Not Inherited
Alias Name	End Time
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	The ending time for the survey in military format (24-hour clock). Midnight is recorded as 2400/ 0000; one minute after midnight is 0001.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 0830, 1520, 2146
Data Type	String (4)

7.162 VST_GUID

Geodatabase Name	VST_GUID
BLM Structured Name	Visit_Global_Unique_Identifier
Inheritance	Not Inherited
Alias Name	Visit Unique ID
Feature Class Use/Entity Table	NSO_OWL_OBS_PT, NSO_RESPONSE_TBL, NSO_VISIT_TBL
Definition	The unique identifier for the Visit record. Used to relate Visit records to other feature classes and tables.
Required/Optional	Required
Domain (Valid Values)	No domain. Example: {4747B796-44B4-4628-B069-2D496422E59F}
Data Type	GUID

7.163 VST_NUM

Geodatabase Name	VST_NUM
BLM Structured Name	NSO_Visit_Number
Inheritance	Not Inherited
Alias Name	Visit Number
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	Enter the number for the current visit in the visit sequence as indicated by the survey protocol. Each new visit number represents a completed visit to the survey area. Start with visit number 1; all subsequent visits will be visit number 1 until the entire survey area is covered.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 1, 2, 3
Data Type	Short Integer

7.164 VST_ST_TIME

Geodatabase Name	VST_ST_TIME
BLM Structured Name	NSO_Visit_Start_Time_Text
Inheritance	Not Inherited
Alias Name	Start Time
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	The starting time for the survey in military format (24-hour clock). Midnight is recorded as 2400/ 0000; one minute after midnight is 0001. Most incidental detections such as a response at a site outside the survey area or Barred Owls detections, will have the same Start and End Time for a total survey time of 0 indicating it is incidental to another survey.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 1113, 1800, 2255
Data Type	String (4)

7.165 VST_TTL_TIME

Geodatabase Name	VST_TTL_TIME
BLM Structured Name	NSO_Visit_Total_Time_Text
Inheritance	Not Inherited
Alias Name	Total Time
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	The total length of the visit expressed in minutes. The total time does not always equate to the Visit End Time minus Visit Start Time. For example, total time does not include time spent traveling to different stations.

Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 187, 215
Data Type	String (4)

7.166 VST_TYPE

Geodatabase Name	VST_TYPE
BLM Structured Name	NSO_Visit_Type_Code
Inheritance	Not Inherited
Alias Name	Visit Type
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	This field reflects the intent of the visit. This is one of the few fields that requires previous knowledge of surveys at a site. Most incidental detections such as a response at a site outside the survey area or Barred Owl detections will be considered "Additional Visits." The default value for this field is "OC" (Occupation Only Survey).
Required/Optional	Required
Domain (Valid Values)	dom_NSO_VST_TYPE
Data Type	String (2)

7.167 WND_CND

Geodatabase Name	WND_CND
BLM Structured Name	NSO_Wind_Condition_Code
Inheritance	Not Inherited
Alias Name	Wind
Feature Class Use/Entity Table	NSO_VISIT_TBL
Definition	Describes the predominant wind condition during the visit. Surveys should never be conducted in windy conditions, and rarely in moderate or gusty conditions.
Required/Optional	Optional
Domain (Valid Values)	dom_NSO_WND_CND
Data Type	String (20)

7.168 YEAR_LCTD

Geodatabase Name	YEAR_LCTD
BLM Structured Name	NSO_Site_Year_First_Located_Text
Inheritance	Not Inherited
Alias Name	Year Owls 1st Located

Feature Class Use/Entity Table	NSO_SITE_PT
Definition	The year the site was first documented.
Required/Optional	Optional
Domain (Valid Values)	No domain. Examples: 2001, 1999
Data Type	String (4)

7.169 YEAR_USED

Geodatabase Name	YEAR_USED
BLM Structured Name	NSO_Nest_Tree_Year_Used_Text
Inheritance	Not Inherited
Alias Name	Year Used
Feature Class Use/Entity Table	NSO_NEST_TREE_PT
Definition	The year the nest tree was documented as used. If a tree is used in subsequent years, there will be overlapping points for each year of use in the NSO_NEST_TREE_PT feature class. The default value for this field is UNKN (Unknown).
Required/Optional	Required
Domain (Valid Values)	No domain. Examples: 2001, 1999
Data Type	String (4)

8 Publication Views

8.1 General

Master corporate feature classes/datasets maintained in the edit database (currently ORSOEDIT) are "published" to the user database (currently ORSOVCTR) in several ways:

- Copied completely with no changes (replicated).
- Copied with no changes except to omit one or more feature classes from a feature dataset.
- Minor changes made (e.g., clip, dissolve, union with ownership) to make the data easier to use. Feature classes that have been changed are indicated by "PUB" in their name. They are created through scripts that can be automatically executed and are easily rebuilt from the master (ORSOEDIT) data whenever necessary.

8.2 Specific to This Dataset - Internal Datasets

An internal publication dataset is provided that is designed to meet the requirements below. All VERSION_NAME and editor tracking fields will be dropped from publication data.

The internal publication dataset is refreshed when edits have been reconciled and posted in the edit production database.

8.2.1 NSO_NEST_TREE_PUB_PT Feature Class (NSO Nest Tree Publication Points)

Table 2 Nest Tree Point Publication Dataset Attributes

Publication Attribute	Source / Description
GPS	NSO_NEST_TREE_PT.GPS
TAG	NSO_NEST_TREE_PT.TAG
TAG_ID	NSO_NEST_TREE_PT.TAG_ID
ELVTN	NSO_NEST_TREE_PT.ELVTN
ELVTN_SRC	NSO_NEST_TREE_PT.ELVTN_SRC
ORIG_LCTR	NSO_NEST_TREE_PT.ORIG_LCTR
DATE_LCTD	NSO_NEST_TREE_PT.DATE_LCTD
TREE_SPCS	NSO_NEST_TREE_PT.TREE_SPCS
ASPECT	NSO_NEST_TREE_PT.ASPECT
SLOPE	NSO_NEST_TREE_PT.SLOPE
SLOPE_PSTN	NSO_NEST_TREE_PT.SLOPE_PSTN
PRMNT_WTR_DIST	NSO_NEST_TREE_PT.PRMNT_WTR_DIST
PRMNT_WTR_TYPE	NSO_NEST_TREE_PT.PRMNT_WTR_TYPE
YEAR_USED	NSO_NEST_TREE_PT.YEAR_USED
DATE_MEAS	NSO_NEST_TREE_PT.DATE_MEAS
OBSRVR	NSO_NEST_TREE_PT.OBSRVR

Publication Attribute	Source / Description
TREE_DBH	NSO_NEST_TREE_PT.TREE_DBH
TREE_HT	NSO_NEST_TREE_PT.TREE_HT
CNPY_HT	NSO_NEST_TREE_PT.CNPY_HT
BOLE_HT	NSO_NEST_TREE_PT.BOLE_HT
NEST_HT	NSO_NEST_TREE_PT.NEST_HT
BRKN_BOLE_HT	NSO_NEST_TREE_PT.BRKN_BOLE_HT
SCNDRY_TOPS	NSO_NEST_TREE_PT.SCNDRY_TOPS
BRKN_TOP	NSO_NEST_TREE_PT.BRKN_TOP
FIRE_SCARS	NSO_NEST_TREE_PT.FIRE_SCARS
BRNCH_DFRM	NSO_NEST_TREE_PT.BRNCH_DFRM
STRCTRL_EDGE_DIST	NSO_NEST_TREE_PT.STRCTRL_EDGE_DIST
STRCTRL_EDGE_TYPE	NSO_NEST_TREE_PT.STRCTRL_EDGE_TYPE
CNPY_CLASS	NSO_NEST_TREE_PT.CNPY_CLASS
NEST_TYPE	NSO_NEST_TREE_PT.NEST_TYPE
DECAY_CLS	NSO_NEST_TREE_PT.DECAY_CLS
NEST_ENT_ASPCT	NSO_NEST_TREE_PT.NEST_ENT_ASPCT
BLM_ORG_CD	NSO_NEST_TREE_PT.BLM_ORG_CD
DIST_DFND_1	NSO_NEST_TREE_PT.DIST_DFND_1
DIST_DFND_2	NSO_NEST_TREE_PT.DIST_DFND_2
COMMENTS	NSO_NEST_TREE_PT.COMMENTS
NT_GUID	NSO_NEST_TREE_PT.NT_GUID
SITE_GUID	NSO_NEST_TREE_PT.SITE_GUID

8.2.2 NSO_OWL_OBS_PUB_PT Feature Class (NSO Owl Observation Points)

Table 3 Owl Observation Point Publication Dataset Attributes

Publication Attribute	Source / Description
SITE_TYPE	NSO_SITE_PT.SITE_TYPE
SITE_NO	NSO_SITE_PT.SITE_NO
LOC_ID	NSO_SITE_PT.LOC_ID
IDNO	Concatenation of NSO_SITE_PT.SITE_NO and NSO_SITE_PT.LOC_ID
LOC_NAME	NSO_SITE_NBR_TBL.LOC_NAME
VST_DT	NSO_VISIT_TBL.VST_DT
OWL_SPCS	NSO_OWL_OBS_PT.OWL_SPCS
OBS_TYPE	NSO_OWL_OBS_PT.OBS_TYPE
TLMTRY	NSO_OWL_OBS_PT.TLMTRY

Publication Attribute	Source / Description
DET_DT	NSO_OWL_OBS_PT.DET_DT
DET_TIME	NSO_OWL_OBS_PT.DET_TIME
OWL_SEX	NSO_OWL_OBS_PT.OWL_SEX
AGE_CLS	NSO_OWL_OBS_PT.AGE_CLS
ADD_OWL	NSO_OWL_OBS_PT.ADD_OWL
USFWS_BAND_NUM	NSO_OWL_OBS_PT.USFWS_BAND_NUM
USFWS_BAND_LEG	NSO_OWL_OBS_PT.USFWS_BAND_LEG
BLM_PRMT	NSO_OWL_OBS_PT.BLM_PRMT
CLR_BAND	NSO_OWL_OBS_PT.CLR_BAND
CLR_BAND_LEG	NSO_OWL_OBS_PT.CLR_BAND_LEG
CLR_BAND_PTRN	NSO_OWL_OBS_PT.CLR_BAND_PTRN
TOP_PRMRY_CLR	NSO_OWL_OBS_PT.TOP_PRMRY_CLR
BTM_SCNDRY_CLR	NSO_OWL_OBS_PT.BTM_SCNDRY_CLR
TAB_CLR	NSO_OWL_OBS_PT.TAB_CLR
TAIL_TIP_SHP	NSO_OWL_OBS_PT.TAIL_TIP_SHP
TAIL_TIP_CLR	NSO_OWL_OBS_PT.TAIL_TIP_CLR
MSE_FATE_1	NSO_OWL_OBS_PT.MSE_FATE_1
MSE_FATE_2	NSO_OWL_OBS_PT.MSE_FATE_2
MSE_FATE_3	NSO_OWL_OBS_PT.MSE_FATE_3
MSE_FATE_4	NSO_OWL_OBS_PT.MSE_FATE_4
MSE_FATE_5	NSO_OWL_OBS_PT.MSE_FATE_5
MSE_FATE_6	NSO_OWL_OBS_PT.MSE_FATE_6
BLM_ORG_CD	NSO_OWL_OBS_PT.BLM_ORG_CD
ACCURACY_FT	NSO_OWL_OBS_PT.ACCURACY_FT
DIST_DFND_1	NSO_OWL_OBS_PT.DIST_DFND_1
DIST_DFND_2	NSO_OWL_OBS_PT.DIST_DFND_2
COMMENTS	NSO_OWL_OBS_PT.COMMENTS
OWL_OBS_GUID	NSO_OWL_OBS_PT.OWL_OBS_GUID
VST_GUID	NSO_OWL_OBS_PT.VST_GUID

8.2.3 NSO_RESPONSE_PUB_TBL Table (NSO Response Publication Table)

Table 4 Response Table Publication Dataset Attributes

Publication Attribute	Source / Description
STTN_ID	NSO_RESPONSE_TBL.STTN_ID
SRV_TYPE	NSO_RESPONSE_TBL.SRV_TYPE

Publication Attribute	Source / Description
STRT_DT	NSO_RESPONSE_TBL.STRT_DT
STRT_TIME	NSO_RESPONSE_TBL.STRT_TIME
END_DT	NSO_RESPONSE_TBL.END_DT
END_TIME	NSO_RESPONSE_TBL.END_TIME
OWL_RSPNSE	NSO_RESPONSE_TBL.OWL_RSPNSE
RSPNSE_AZMTH	NSO_RESPONSE_TBL.RSPNSE_AZMTH
RSPNSE_DIST	NSO_RESPONSE_TBL.RSPNSE_DIST
STOC_RSPNSE	NSO_RESPONSE_TBL.STOC_RSPNSE
STVA_RSPNSE	NSO_RESPONSE_TBL.STVA_RSPNSE
STUN_RSPNSE	NSO_RESPONSE_TBL.STUN_RSPNSE
HYBRID_RSPNSE	NSO_RESPONSE_TBL.HYBRID_RSPNSE
DIST_DFND_1	NSO_RESPONSE_TBL.DIST_DFND_1
DIST_DFND_2	NSO_RESPONSE_TBL.DIST_DFND_2
COMMENTS	NSO_RESPONSE_TBL.COMMENTS
STTN_GUID	NSO_RESPONSE_TBL.STTN_GUID
VST_GUID	NSO_RESPONSE_TBL.VST_GUID

8.2.4 NSO_SITE_PUB_PT Feature Class (NSO Site Publication Points)

Table 5 Site Point Publication Dataset Attributes

Publication Attribute	Source / Description
SITE_TYPE	NSO_SITE_PT.SITE_TYPE
SITE_NO	NSO_SITE_PT.SITE_NO
LOC_ID	NSO_SITE_PT.LOC_ID
IDNO	Concatenation of NSO_SITE_PT.SITE_NO and NSO_SITE_PT.LOC_ID
LOC_NAME	NSO_SITE_NBR_TBL.LOC_NAME
BLM_ORG_CD	NSO_SITE_PT.BLM_ORG_CD
LAND_OWNR	NSO_SITE_PT.LAND_OWNR
SITE_SPCS	NSO_SITE_PT.SITE_SPCS
DMGRPHY_AREA	NSO_SITE_PT.DMGRPHY_AREA
HM_RNGE_DIST	NSO_SITE_PT.HM_RNGE_DIST
CTR_CRTN_RTNL	NSO_SITE_PT.CTR_CRTN_RTNL
YEAR_LCTD	NSO_SITE_PT.YEAR_LCTD
UTM_X_NAD83	Generate UTM X coordinate from site point using UTM Zone 10 projection, NAD83.

Publication Attribute	Source / Description
UTM_Y_NAD83	Generate UTM Y coordinate from site point using UTM Zone 10 projection, NAD83.
DIST_DFND_1	NSO_SITE_PT.DIST_DFND_1
DIST_DFND_2	NSO_SITE_PT.DIST_DFND_2
COMMENTS	NSO_SITE_PT.COMMENTS
SITE_GUID	NSO_SITE_PT.SITE_GUID

8.2.5 NSO_SITE_HMRNG_PUB_POLY Feature Class (NSO Site Center Home Range Buffer Publication Polygons)

Generated by buffering the NSO_SITE_PT feature class where SITE_TYPE = 1 (MSNO).

Points are buffered by the value in the HM_RNGE_DIST field.

8.2.6 NSO_SITE_CORE_PUB_POLY Feature Class (NSO Site Center Core Buffer Publication Polygons)

Generated by buffering the NSO_SITE_PT feature class where SITE_TYPE = 1 (MSNO).

Points are buffered by 0.5 miles.

8.2.7 NSO_SITE_PATCH_PUB_POLY Feature Class (NSO Site Center Patch Buffer Publication Polygons)

Generated by buffering the NSO_SITE_PT feature class where SITE_TYPE = 1 (MSNO).

Points are buffered by 300 meters.

8.2.8 NSO_STATION_PUB_PT Feature Class (NSO Station Publication Point)

Table 5 Station Point Publication Dataset Attributes

Publication Attribute	Source / Description
STTN_ID	NSO_STATION_PT.STTN_ID
BLM_ORG_CD	NSO_STATION_PT.BLM_ORG_CD
LOC_NAME	NSO_STATION_PT.LOC_NAME
ACCESS_CD	NSO_STATION_PT.ACCESS_CD
SOURCE	NSO_STATION_PT.SOURCE
PROJ_NAME	NSO_STATION_PT.PROJ_NAME
STTN_GROUP	NSO_STATION_PT.STTN_GROUP
MSNO_LIST	NSO_STATION_PT.MSNO_LIST
TSNO_LIST	NSO_STATION_PT.TSNO_LIST
BSNO_LIST	NSO_STATION_PT.BSNO_LIST

Publication Attribute	Source / Description
COORD_SRC	NSO_STATION_PT.COORD_SRC
ACCURACY_FT	NSO_STATION_PT.ACCURACY_FT
DIST_DFND_1	NSO_STATION_PT.DIST_DFND_1
DIST_DFND_2	NSO_STATION_PT.DIST_DFND_2
COMMENTS	NSO_STATION_PT.COMMENTS
STTN_GUID	NSO_STATION_PT.STTN_GUID

8.2.9 NSO_SITE_SUMMARY_PUB_PT Feature Class (NSO Summary Publication Point)

This publication dataset joins the attributes and shape from NSO_SITE_PT to NSO_SUMMARY_TBL. The join between the two data objects is an outer join, which will result in a Site point record being duplicated for each Summary record it is related to.

Table 6 Site Summary Publication Dataset Attributes

Publication Attribute	Source / Description
SITE_TYPE	NSO_SITE_PT.SITE_TYPE
SITE_NO	NSO_SITE_PT.SITE_NO
LOC_ID	NSO_SITE_PT.LOC_ID
IDNO	Concatenation of NSO_SITE_PT.SITE_NO and NSO_SITE_PT.LOC_ID
LOC_NAME	NSO_SITE_NBR_TBL.LOC_NAME
BLM_ORG_CD	NSO_SITE_PT.BLM_ORG_CD
LAND_OWNR	NSO_SITE_PT.LAND_OWNR
SITE_SPCS	NSO_SITE_PT.SITE_SPCS
DMGRPHY_AREA	NSO_SITE_PT.DMGRPHY_AREA
HM_RNGE_DIST	NSO_SITE_PT.HM_RNGE_DIST
CTR_CRTN_RTNL	NSO_SITE_PT.CTR_CRTN_RTNL
YEAR_LCTD	NSO_SITE_PT.YEAR_LCTD
UTM_X_NAD83	Generate UTM X coordinate from site point using UTM Zone 10 projection, NAD83.
UTM_Y_NAD83	Generate UTM Y coordinate from site point using UTM Zone 10 projection, NAD83.
DIST_DFND_1	NSO_SITE_PT.DIST_DFND_1
DIST_DFND_2	NSO_SITE_PT.DIST_DFND_2
COMMENTS	NSO_SITE_PT.COMMENTS
SMRY_YEAR	NSO_SUMMARY_TBL.SMRY_YEAR
NUM_DAY_VST	NSO_SUMMARY_TBL.NUM_DAY_VST
NUM_NGHT_VST	NSO_SUMMARY_TBL.NUM_NGHT_VST

Publication Attribute	Source / Description
NUM_MALE	NSO_SUMMARY_TBL.NUM_MALE
NUM_FEM	NSO_SUMMARY_TBL.NUM_FEM
NUM_JUV	NSO_SUMMARY_TBL.NUM_JUV
NUM_FLDGLNG	NSO_SUMMARY_TBL.NUM_FLDGLNG
NUM_UNK	NSO_SUMMARY_TBL.NUM_UNK
OWL_SPCS	NSO_SUMMARY_TBL.OWL_SPCS
PAIR_STTS_SUM	NSO_SUMMARY_TBL.PAIR_STTS_SUM
NSTNG_STTS_SUM	NSO_SUMMARY_TBL.NSTNG_STTS_SUM
NEST_TREE_LOC	NSO_SUMMARY_TBL.NEST_TREE_LOC
REPRO_SUCC	NSO_SUMMARY_TBL.REPRO_SUCC
FINAL_NEST_REPRO	NSO_SUMMARY_TBL.FINAL_NEST_REPRO
PAIR_STTS_FWS	NSO_SUMMARY_TBL.PAIR_STTS_FWS
STVA_DET	NSO_SUMMARY_TBL.STVA_DET
BAND_MALE_STTS_1	NSO_SUMMARY_TBL.BAND_MALE_STTS_1
BAND_MALE_ID_1	NSO_SUMMARY_TBL.BAND_MALE_ID_1
BAND_MALE_STTS_2	NSO_SUMMARY_TBL.BAND_MALE_STTS_2
BAND_MALE_ID_2	NSO_SUMMARY_TBL.BAND_MALE_ID_2
BAND_MALE_STTS_3	NSO_SUMMARY_TBL.BAND_MALE_STTS_3
BAND_MALE_ID_3	NSO_SUMMARY_TBL.BAND_MALE_ID_3
BAND_FEM_STTS_1	NSO_SUMMARY_TBL.BAND_FEM_STTS_1
BAND_FEM_ID_1	NSO_SUMMARY_TBL.BAND_FEM_ID_1
BAND_FEM_STTS_2	NSO_SUMMARY_TBL.BAND_FEM_STTS_2
BAND_FEM_ID_2	NSO_SUMMARY_TBL.BAND_FEM_ID_2
BAND_FEM_STTS_3	NSO_SUMMARY_TBL.BAND_FEM_STTS_3
BAND_FEM_ID_3	NSO_SUMMARY_TBL.BAND_FEM_ID_3
BAND_UNK_STTS_1	NSO_SUMMARY_TBL.BAND_UNK_STTS_1
BAND_UNK_ID_1	NSO_SUMMARY_TBL.BAND_UNK_ID_1
BAND_UNK_STTS_2	NSO_SUMMARY_TBL.BAND_UNK_STTS_2
BAND_UNK_ID_2	NSO_SUMMARY_TBL.BAND_UNK_ID_2
BAND_UNK_STTS_3	NSO_SUMMARY_TBL.BAND_UNK_STTS_3
BAND_UNK_ID_3	NSO_SUMMARY_TBL.BAND_UNK_ID_3
ACTVTY_CTR_RTNLE	NSO_SUMMARY_TBL.ACTVTY_CTR_RTNLE
ACTVTY_CTR_UTMX	NSO_SUMMARY_TBL.ACTVTY_CTR_UTMX
ACTVTY_CTR_UTMY	NSO_SUMMARY_TBL.ACTVTY_CTR_UTMY
ACCURACY_FT	NSO_SUMMARY_TBL.ACCURACY_FT
RCRD_STTS	NSO_SUMMARY_TBL.RCRD_STTS

Publication Attribute	Source / Description
DIST_DFND_1	NSO_SUMMARY_TBL.DIST_DFND_1
DIST_DFND_2	NSO_SUMMARY_TBL.DIST_DFND_2
COMMENTS	NSO_SUMMARY_TBL.COMMENTS
SITE_GUID	NSO_SITE_PT.SITE_GUID
SMRY_GUID	NSO_SUMMARY_TBL. SMRY_GUID

8.2.10 NSO_VISIT_PUB_TBL Table (NSO Visit Publication Table)

Table 7 Visit Publication Dataset Attributes

Publication Attribute	Source / Description
SITE_TYPE	NSO_SITE_PT.SITE_TYPE
SITE_NO	NSO_SITE_PT.SITE_NO
LOC_ID	NSO_SITE_PT.LOC_ID
IDNO	Concatenation of NSO_SITE_PT.SITE_NO and NSO_SITE_PT.LOC_ID
LOC_NAME	NSO_SITE_NBR_TBL.LOC_NAME
VST_DT	NSO_VISIT_TBL.VST_DT
VST_ST_TIME	NSO_VISIT_TBL.VST_ST_TIME
VST_END_TIME	NSO_VISIT_TBL.VST_END_TIME
VST_TTL_TIME	NSO_VISIT_TBL.VST_TTL_TIME
VST_NUM	NSO_VISIT_TBL.VST_NUM
DAY_VST	NSO_VISIT_TBL.DAY_VST
FLW_UP_VST	NSO_VISIT_TBL.FLW_UP_VST
VST_TYPE	NSO_VISIT_TBL.VST_TYPE
SRV_AREA_CMPLTD	NSO_VISIT_TBL.SRV_AREA_CMPLTD
SPCS_SRCHD	NSO_VISIT_TBL.SPCS_SRCHD
OTHR_SPCS_DET	NSO_VISIT_TBL.OTHR_SPCS_DET
OTHR_SPCS_DET_2	NSO_VISIT_TBL.OTHR_SPCS_DET_2
OBSRVR_1	NSO_VISIT_TBL.OBSRVR_1
OBSRVR_2	NSO_VISIT_TBL.OBSRVR_2
OBSRVR_AFLTN	NSO_VISIT_TBL.OBSRVR_AFLTN
OWL_RSPNSE	NSO_VISIT_TBL.OWL_RSPNSE
MSE_OFFRD	NSO_VISIT_TBL.MSE_OFFRD
NUM_MSE_TKN	NSO_VISIT_TBL.NUM_MSE_TKN
SRV_MTHD	NSO_VISIT_TBL.SRV_MTHD
SRV_MTHD_2	NSO_VISIT_TBL.SRV_MTHD_2
PAIR_STTS	NSO_VISIT_TBL.PAIR_STTS

Publication Attribute	Source / Description
NSTNG_STTS	NSO_VISIT_TBL.NSTNG_STTS
NEST_STTS_SPPRT	NSO_VISIT_TBL.NEST_STTS_SPPRT
NEST_TREE_LOC	NSO_VISIT_TBL.NEST_TREE_LOC
WND_CND	NSO_VISIT_TBL.WND_CND
CLOUD_CVR	NSO_VISIT_TBL.CLOUD_CVR
PRECIP_CND	NSO_VISIT_TBL.PRECIP_CND
DIST_DFND_1	NSO_VISIT_TBL.DIST_DFND_1
DIST_DFND_2	NSO_VISIT_TBL.DIST_DFND_2
COMMENTS	NSO_VISIT_TBL.COMMENTS
VST_GUID	NSO_VISIT_TBL.VST_GUID
SITE_GUID	NSO_VISIT_TBL.SITE_GUID

8.3 Specific to This Dataset - External Datasets

An external publication dataset is provided that is designed to meet the requirements below. This dataset is refreshed on an annual basis on or around March 1st.

8.3.1 NSO_SITE_PUB_EXT_PT Feature Class (NSO Site Publication External/Public Points)

Only includes records where the Landowner is BLM or Forest Service.

Table 8 External Site Publication Dataset Attributes

Publication Attribute	Source / Description
SITE_NO	NSO_SITE_PT.SITE_NO
LOC_ID	NSO_SITE_PT.LOC_ID
IDNO	Concatenation of NSO_SITE_PT.SITE_NO and NSO_SITE_PT.LOC_ID
LOC_NAME	NSO_SITE_NBR_TBL.LOC_NAME
BLM_ORG_CD	NSO_SITE_PT.BLM_ORG_CD
LAND_OWNR	NSO_SITE_PT.LAND_OWNR
SITE_SPCS	NSO_SITE_PT.SITE_SPCS
DMGRPHY_AREA	NSO_SITE_PT.DMGRPHY_AREA
HM_RNGE_DIST	NSO_SITE_PT.HM_RNGE_DIST

8.3.2 NSO_SITE_SUMMARY_PUB_EXT_PT Feature Class (NSO Summary Publication External/Public Point)

This publication dataset joins the attributes and shape from NSO_SITE_PT to NSO_SUMMARY_TBL. The join between the two data objects is an outer join, which will result in a Site point record being duplicated for each

Summary record it is related to.

Only includes records where the Landowner is BLM or Forest Service.

This dataset does NOT include the NUM_JUV field.

Table 9 External Site Summary Publication Dataset Attributes

Publication Attribute	Source / Description
SITE_NO	NSO_SITE_PT.SITE_NO
LOC_ID	NSO_SITE_PT.LOC_ID
IDNO	Concatenation of NSO_SITE_PT.SITE_NO and NSO_SITE_PT.LOC_ID
LOC_NAME	NSO_SITE_NBR_TBL.LOC_NAME
BLM_ORG_CD	NSO_SITE_PT.BLM_ORG_CD
LAND_OWNR	NSO_SITE_PT.LAND_OWNR
UTM_X_NAD83	Generate UTM X coordinate from site point using UTM Zone 10 projection, NAD83.
UTM_Y_NAD83	Generate UTM Y coordinate from site point using UTM Zone 10 projection, NAD83.
SMRY_YEAR	NSO_SUMMARY_TBL.SMRY_YEAR
NUM_DAY_VST	NSO_SUMMARY_TBL.NUM_DAY_VST
NUM_NGHT_VST	NSO_SUMMARY_TBL.NUM_NGHT_VST
NUM_MALE	NSO_SUMMARY_TBL.NUM_MALE
NUM_FEM	NSO_SUMMARY_TBL.NUM_FEM
NUM_FLDGLNG	NSO_SUMMARY_TBL.NUM_FLDGLNG
NUM_UNK	NSO_SUMMARY_TBL.NUM_UNK
OWL_SPCS	NSO_SUMMARY_TBL.OWL_SPCS
PAIR_STTS	NSO_SUMMARY_TBL.PAIR_STTS
NSTNG_STTS	NSO_SUMMARY_TBL.NSTNG_STTS
REPRO_SUCC	NSO_SUMMARY_TBL.REPRO_SUCC
FINAL_NEST_REPRO	NSO_SUMMARY_TBL.FINAL_NEST_REPRO

8.4 Layer Files

Layer files are not new data requiring storage and maintenance but point to existing data. They have appropriate selection and symbolization for correct use and display of the data. They provide the guidance for data published on the web. Layer files are created by simple, documented processes, and can be deleted and recreated at any time.

9 Editing Procedures

9.1 Managing Overlap (General Guidance)

"Overlap" means there are potentially more than one feature in the same feature class that occupies the same space ("stacked" polygons). Depending on the query, acres will be double counted.

In this discussion, an area entity may consist of more than one polygon, and a line entity may consist of more than one arc. They would have multiple records in the spatial table (with identical attributes). Multi-part features are not allowed. Multi-part features are easily created inadvertently and not always easy to identify. If they are not consciously and consistently avoided, feature classes will end up with a mixture of single and multi-part features. Multi-part features can be more difficult to edit, query, and select, along with impacting overall performance.

Overlap is only allowed in the ODF in limited and controlled scenarios. In each case, the "cause" of the overlap (the attribute changes that "kick off" a new feature which may overlap an existing feature) is carefully defined and controlled. In other words, in feature classes that permit overlap for a change in spatial extent, there is always a new feature created which may overlap an existing feature, but in addition there are certain attribute(s) that will result in a new feature even if there is no spatial change. The feature classes (and the one feature dataset) that allow overlap, and the attributes that lead to a new, possibly overlapping feature, are described below.

9.1.1 Overlapping Points

Generally, these are allowed and do not cause a problem since points have no spatial extent. However, it is easy to inadvertently create more than one point making it important to search for and delete duplicates.

9.2 Editing Quality Control

Duplicate features. Checking for undesired duplicates is critical. Polygons or arcs that are 100% duplicate are easily found by searching for identical attributes along with identical Shape_Area and/or Shape_Length. Searching for partially overlapping arcs or polygons is harder, and each case must be inspected to determine if the overlap is desired or not.

Null geometry. Check any features that have 0 or very small Shape_Area or Shape_Length. If a feature has 0 geometry and you can’t zoom to it, it is probably an inadvertently created "Null" feature and should be deleted. Very small features may also be unintended, resulting from messy line work.

Check for capitalization and spacing differences in attribute values that should be the same. Check for leading or trailing blanks what will make a different value even if it looks identical.

9.3 Theme Specific Guidance

There is much in the data standard that addresses editing and provides guidance especially in the Data Management Protocols (Section 3).

9.3.1 Designating Sites

The following text describes how sites should be recorded in the NSO_SITE_PT feature class.

MSNO Site - A spotted owl site is defined as a location with evidence of continued use by owls. Information on all spotted owl responses from annual surveys will be recorded in the dataset, but not all responses will lead to the designation of a site. Responses that do not meet the site definition below will be retained as historical data on general locations to be supplemented with additional information through future surveys at the location. Over time these incidental locations may be considered for site designation based on the available response information.

Ideally, the site should be a known nest site or core area used by young. Designate a site for any location of breeding spotted owls, the presence of young before dispersal, the repeated location of a pair during a single season or over several years, or some other strong indication of continued occupation. On sites where no nesting has been recorded, rely on the best information available to plot the point representing the site. The site designation represents the biologist's judgment that this is a unique territorial use area, there may be numerous high use areas within each site (represented by site alternates, see below). The repeated detection of a single owl during the same season or over several years usually does not warrant a site designation. Responsibility for determining when a set of locations warrant site designation lies with the biologist(s) most familiar with the location data.

All Sites will have at least one site alternate (the original, designated by O in the location ID); others will have numerous site alternates as described here. When the owl's center of activity/nest grove has moved sufficiently to change critical site table information, a new site alternate should be designated. A site alternate will usually result from the location of a new nest tree or newly fledged juveniles at a location sufficiently changed from a previously designated site alternate. Some examples of a sufficient change are location in a different 1/16 Section, landowner change, different administrative designation, change in land classification such as critical habitat, etc. A site alternate may have numerous nests in proximity that are all associated with the alternate. The spatial location is based on the first nest location at that site alternate; it may or may not represent the current or most recently used nest.

In the absence of any administrative considerations, the off-site locations of adults, regardless of how consistent, usually does not warrant alternate change without additional evidence (loss of historic site center due to habitat degradation and the owls now occupy an adjacent suitable habitat location). The same criterion applies to detecting fledglings later in the survey season because they may be quite mobile and not near the actual nest tree. One exception to this criterion is when Barred Owls occupy historic site alternates. The presence of Barred Owls may result in abandonment of a site center; documenting the new Spotted Owl use area is important in these instances. A new site alternate that is not based on a nest grove should have at least two years of known activity at that location without use of another alternate. Be conservative when designating new site alternates using this criterion. When entering data into the Visit table, select an IDNO based on the IDNO entered the previous year unless a new site alternate has been designated for the current year. An exception to this is when two very disjunctive site alternates exist, and they are surveyed separately.

Do not delete historic site centers (usually sites designated before about 1990) from the site feature class if they become unoccupied or suitable habitat is removed. Data on these site centers will be retained in the database as a permanent record to provide information on historic distribution and occurrence of spotted owls on the landscape. For more recent site alternates, if the original site center was not based on a nest grove, and you find a nest within a few years of designation, edit the site record to reflect the new information rather than assigning a new site alternate. If the biologist determines that data used in the initial designation is in error, correct that error in the database. As in other cases, the biologists should use their professional judgment in applying these rules.

TSNO Site - A spotted owl site not related to a known site (no MSNO assigned). TSNO stands for Temporary Site Number.

These sites include areas with no spotted owl detections or spotted owl detection(s) of one or more owls documented at areas other than a designated site and the response information is insufficient to substantiate a site designation. General locations would include any responses that cannot be associated with a particular site, such as nighttime responses that occurred between two known sites. This TSNO data type is also used for any surveys to areas without a current MSNO record (such as timber sale surveys).

Enter all general surveys, locations and corresponding response data in the TSNO. If a location is consistently surveyed, a unique TSNO will be assigned to that site. These TSNO should be from 5001-9999 and are unique to the District, a two-letter prefix will be added (CB, EU, KF, MD, RB, SA) that will give all TSNO a unique identifier. For the purposes of the TSNO numbers, the Northwest Oregon District is split into SA and EU. If a site is designated for the location in the future, a site record will be created and the generic TSNO will be replaced with an official MSNO in the visit table and owl observation feature class. This process will guard against creating sites around nonresident or non-territorial birds.

BSNO Site - All barred owl sites. BSNO stand for Barred-Owl Site Number.

All surveys or detections of barred owls will be entered under this site designation. All of Oregon and Washington is covered by a 500-ha hexagon grid with a unique number (20,000-99,999) assigned to each cell. This cell is the approximate size of a barred owl home range and the lowest numbers assigned to the cells begin in the SW corner of Oregon.

9.3.2 Calculation Data Rules

The following are a list of calculation rules that occur during editing. Calculation rules are used to automatically populate attributes in a field. These are in addition to the default values defined in Sections 4 and 7.

ALL FEATURE CLASSES AND TABLES

- *_GUID Fields - the unique identifier fields are autopopulated with a GUID/UUID value on record create.

NSO_VISIT_TBL

- NEST_STTS_SPPRT - If the OWL_RSPNSE field is set to "N" (No), then "N" (No Data Recorded, includes No Response) is automatically entered in this field. This rule is enforced on record update.
- NSTNG_STTS - If OWL_RSPNSE equals "N" (No), then this field is set to "NR" (No Response). This rule is enforced on record update.

9.3.3 Constraint Data Rules

The following are a list of data constraint rules that are enforced during editing. Constraint rules specify allowable combinations of values between two or more fields in a record. They are used to ensure that specific conditions are met.

NSO_NEST_TREE_PT

- Permanent Water Type (PRMNT_WTR_TYPE) - If the distance to permanent water (PRMNT_WTR_DIST) field is not null, then this field is required.
- Broken Top (BRKN_TOP) - If the broken bole height (BRKN_BOLE_HT) field is not null, then this field is required.
- Structural Edge Type (STRCTRL_EDGE_TYPE) - If the distance to structural edge (STRCTRL_EDGE_DIST) field is not null, then this field is required.
- Elevation Source (ELVTN_SRC) - If the elevation (ELVTN) field is not null, then this field is required.

NSO_OWL_OBS_PT

- If the observation type (OBS_TYPE) equals "AN", "VN", or "UB", then color band (CLR_BAND) must equal "N."
- If the observation type (OBS_TYPE) equals "AN", "VN", or "UB" then the following fields must be null:

  Color Band Leg (CLR_BAND_LEG)

  Color Band Pattern (CLR_BAND_PTRN)

  Color Band Top/Primary Color (TOP_PRMRY_CLR)

  Color Band Bottom/Secondary Color) BTM_SCNDRY_CLR)

  Color Band Tab Color (TAB_CLR)
- If observation type (OBS_TYPE) equals "BB", "BR", or "CB", USFWS_BAND_NUM must not be null.
- Detection Time (DET_TIME) - This field must be 4 numbers between 0000 and 2400 (military time format).

NSO_RESPONSE_TBL

- Start Time (STRT_TIME) - This field must be 4 numbers between 0000 and 2400 (military time format).
- End Time (END_TIME) - This field must be 4 numbers between 0000 and 2400 (military time format).

NSO_SITE_PT

- If Site Type (SITE_TYPE) = 1 (MSNO), then LOC_ID is required. All MSNO sites will have at least one site alternate (the original, designated by O in the location ID.
- LOC_ID may only contain letters; numbers are not allowed.
- YEAR_LCTD must be a 4-digit number that represents a valid year.

NSO_VISIT_TBL

- Pair Status (PAIR_STTS) - If the owl response (OWL_RSPNSE) equals "Y" (Yes), then this field is required.
- Nesting Status (NSTNG_STTS) - If owl response (OWL_RSPNSE) equals "Y" (Yes), then this field is required.
- Nest Status Support (NEST_STTS_SPPRT) If the nesting status (NEST_STTS) field is not null and is not equal to "U" (Unknown), then this field is required.
- Nest Tree Located (NEST_TREE_LOC) - If a visit record has a nest tree located, that nest tree must be entered into the NSO_NEST_TREE_PT feature class.
- Nest Tree Located (NEST_TREE_LOC) - This field is only populated if the Nesting Status (NEST_STTS) equals I (Incubation or brooding), O (Nestlings or branchers are detected or suspected) or F (Fledglings observed). Otherwise, it must be null.
- Number Visit Start Time (VST_ST_TIME) - This field must be 4 numbers between 0000 and 2400 (military time format).
- Visit End Time VST_END_TIME) - This field must be 4 numbers between 0000 and 2400 (military time

format).

- Number Mice Taken (NUM_MSE_TKN) - If mouse offered (MSE_OFFRD) = "Y" (Yes), then this field is required.

RECORD DELETIONS

Editors may not delete records under the following conditions:

- An NSO_SITE_NBR_TBL record may not be deleted if there are related NSO_SITE_PT records.
- An NSO_SITE_PT record may not be deleted if there are related NSO_VISIT_TBL records.
- An NSO_VISIT_TBL record may not be deleted if there are related NSO_OWL_OBS_PT records.
- An NSO_STATION_PT record may not be deleted if there are related NSO_RESPONSE_TBL records.

10 Abbreviations and Acronyms

Does not include abbreviations/acronyms used as codes for data attributes or domain values.

Table 10 Abbreviations/Acronyms Used

Abbreviations	Descriptions
BLM	Bureau of Land Management, U.S. Department of the Interior
CADNSDI	Cadastral National Spatial Data Infrastructure
DEM	Digital Elevation Model
DLG	Digital Line Graphs
FOIA	Freedom of Information Act
FOIVEG	Forest Operations Inventory
GIS	Geographic Information System
GNIS	Geographic Names Information System
GPS	Global Positioning System
GTRN	Ground Transportation GIS dataset
IDP	Interdisciplinary
NAD	North American Datum
NARA	National Archives and Records Administration
NEPA	National Environmental Policy Act
ODF	Oregon Data Framework
OR/WA	Oregon/Washington BLM Administrative State
POLY	GIS polygon feature
PUB	Publication
RMP	Resource Management Plan
USFS	United States Forest Service, U.S. Department of Agriculture
USGS	United States Geological Survey, U.S. Department of the Interior
SDE	Spatial Database Engine
WEB	Worldwide Web (internet)
WODDB	Western Oregon Digital Database

11 References

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USDI Fish and Wildlife Service. 2021. Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls Using Autonomous Recording Unit Methods - Draft Pilot Version 0.1 for 2021 Season Testing. Unpublished protocol 65 p.

A Domains (Valid Values)

These are the domains at the time the data standard was approved. Domains can be changed without a re-issue of the data standard. Current domains are found on the internal OR/WA SharePoint data management page. Some of the domains used in this data standard are also available at the following web site:
http://www.blm.gov/or/datamanagement/index.php

For domains not listed at that site contact: contact the State Data Administrator.

A.1 dom_BLM_ORG_CD

Administrative Unit Organization Code. Standard BLM organization codes generated from the national list. This is a subset of OR/WA administrative offices and those in other states that border.

This is a lengthy domain used by multiple datasets. For the full list of values go to:
https://gis.blm.gov/ORDownload/Domains/dom_BLM_ORG_CODE.xls

A.2 dom_COORD_SRC

Coordinate Source Code. The source of the geographic coordinates (lines, points, polygons).

Code	Description
CADNSDI	CADNSDI - Lines from or snapped to the CADNSDI dataset
CFF	CFF - Lines duplicated or buffered from Cartographic Feature Files (USFS)
DEM	DEM - Digital Elevation Model (30m or better accuracy) used for creation of contours
DGPS	DGPS - Feature obtained from a Global Positioning System device with Real Time Correction (SBAS)
DIS	DIS - Lines generated to connect discontinuous features
DLG	DLG - Lines duplicated or buffered from (24K scale accuracy) USGS Digital Line Graphs
DOQ	DOQ - Screen digitized linework over digital orthophotography backdrop (DOQ, NAIP, OSIP, or others)
DRG	DRG - Screen digitized linework over Digital Raster Graphic backdrop
GCD	GCD - Lines snapped to Geographic Coordinate Database Points
GPS	GPS - Lines obtained from a Global Positioning System device
IMG	IMG - Linework derived from interpretation of satellite or other non-photographic imagery
LiDAR	LiDAR - LiDAR points, lines, or polygons generated through interpretation or analysis.
MAP	MAP - Digitized coordinates from hardcopy map or onto a map backdrop
MTP	MTP - Lines duplicated from Digital Master Title Plat
SOURCEL	SOURCEL - Coordinates duplicated from a BLM GIS source layer.
SOURCEX	SOURCEX - Source Layer from non-BLM GIS
SRV	SRV - Survey methods were used to create the linework (e.g., COGO)
TIGER	TIGER - Tiger Data
TRS	TRS - Coordinates only given as a legal description (township, range, section)
UNK	UNK - Unknown coordinate source

Code	Description
WOD	WOD - WODDB Photogrammetric

A.3 dom_DECAY_CLASS

Decay Class. Code to describe the decomposition characteristics of snags or coarse woody debris.

Code	Description
0	0 - Live tree
1	1 - Minimal decay; bark & limbs present
2	2 - Some decay; bark & limbs mostly present
3	3 - Advancing decay, bark & limbs mostly absent, bole intact
4	4 - Decayed, bark & limbs mostly absent, softening bole
5	5 - Well-decayed, soft snag/log

A.4 dom_ELVTN_SRC

Elevation Source. Indicates how the elevation was determined.

Code	Description
Altimeter	Altimeter - elevation measured in the field using an altimeter
Topo Map	Topo Map - elevation derived from a USGS topo map
DEM	DEM - elevation derived from a digital elevation model dataset

A.5 dom_JURIS_CODE

Jurisdiction Organization Code. Management entity that has administrative responsibilities or jurisdiction for a geographic location.

Code	Description
BL	BL - Bureau of Land Management
BP	BP - Bonneville Power Administration
BR	BR - Bureau of Reclamation
CE	CE - Corps of Engineers
CG	CG - U.S. Coast Guard
DA	DA - U.S. Dept. of Agriculture (Except the Forest Service)
DD	DD - U.S. Dept. of Defense (Except the Corps of Engineers)
FA	FA - Federal Aviation Administration
FC	FC - Federal Energy Regulatory Commission
FS	FS - U.S. Forest Service
FW	FW - U.S. Fish and Wildlife Service

Code	Description
GS	GS - U.S. Geological Survey
GSA	GSA - General Services Administration
IA	IA - Bureau of Indian Affairs and Tribal Units
LG	LG - Local Government
NP	NP - National Park Service
PV	PV - Private Lands
PVI	PVI - Private, Industrial
PVN	PVN - Private, NonIndustrial
PVU	PVU - Private, Urban
SDT	SDT - State Transportation Department
ST	ST - State Managed Lands
STF	STF - State Forests
STL	STL - State Division of Lands
STP	STP - State Parks
STW	STW - State Wildlife Refuges
UN	UN - Undetermined

A.6 dom_NSO_ACCESS

NSO Access Code. Describes how the stations can be approached by the surveyor.

Code	Description
Walk in	Walk in - surveyors must walk to the station
Roadside	Roadside - the station is alongside a road

A.7 dom_NSO_ACCURACY_FT

NSO Accuracy Feet Code. A standard list of values for recording owl observation location accuracy.

Code	Description
3	3 - Within 3 feet (1 meter)
33	33 - Within 33 feet (10 meters)
164	164 - Within 164 feet (50 meters)
328	328 - Within 328 feet (100 meters)
656	656 - Within 656 feet (200 meters)
1312	1312 - Within 1312 feet (400 meters)
2625	2625 - Within 2625 feet (800 meters)
6562	6562 - Within 6562 feet (2 km or 1.25 miles)

Code	Description
-1	-1 - Unknown

A.8 dom_NSO_ACTVTY_CTR_RTNLE

NSO Summary Activity Center Rationale Code. The rationale for selecting the activity center coordinate for the summary year.

Code	Description
N	N - Nest location
F	F - Fledglings without a nest tree
P	P - Best pair location
S	S - Best single location (no pair detected)
U	U - Unknown rationale with detections, defaulted to IDNO coordinate
NR	NR - No detections, defaulted to IDNO coordinate
X	X - No detection, point based on previous year(s) activity center(s)

A.9 dom_NSO_AFLTN

Observer Affiliation Code. The company or organization with which the observer belongs to.

Code	Description
BLM	BLM - Bureau of Land Management
Biota Pacific	Biota Pacific
Cafferata Consulting, LLC	Cafferata Consulting, LLC
Cascade Raptor Center	Cascade Raptor Center
Cascade Timber Consulting	Cascade Timber Consulting
Chinook Forest Partners	Chinook Forest Partners
Cow Creek Tribe	Cow Creek Tribe
Etegrity Environmental Consultants, LLC	Etegrity Environmental Consultants, LLC
General Public	General Public
Guistina Land & Timber Co.	Guistina Land & Timber Co.
Hamer Environmental	Hamer Environmental
Hancock Forest Mgt	Hancock Forest Mgt
HJ Andrews Experimental Forest	HJ Andrews Experimental Forest
Kier Associates	Kier Associates
Kingfisher	Kingfisher
Lone Rock Timber	Lone Rock Timber
NCASI	NCASI - National Council for Air and Stream Improvement
Private	Private - Other Private Landowner

Code	Description
Plum Creek Timber Company, Inc	Plum Creek Timber Company, Inc
PNWC	PNWC - Pacific Northwest Research Corvallis
PNWR	PNWR - Pacific Northwest Research Roseburg
P P and L	P P and L
Roseburg Resources Co.	Roseburg Resources Co.
Turnstone Environmental Consultants, Inc	Turnstone Environmental Consultants, Inc
USFS	USFS - US Forest Service
USFWS	USFWS - US Fish and Wildlife Service
USGS	USGS - US Geological Survey
Westside Ecological	Westside Ecological
Weyerhaeuser Company	Weyerhaeuser Company
WM Beatty	WM Beatty

A.10 dom_NSO_AGE_CLS

NSO Age Class Code. The development stage of the observed owl. Codes are sorted in logical order.

Code	Description
A	A - Adult
S	S - Subadult
D	D - Adult/Subadult - age unknown
F	F - Fledgling
O	O - Nestlings or Branchers
U	U - Unknown age owl observed
N	N - No Data Recorded

A.11 dom_NSO_BAND_LEG

NSO Band Leg. If the owl has been banded, indicates the leg that the band is on. Codes are sorted in logical order.

Code	Description
R	R - Right
L	L - Left
U	U - Unknown. Band observed, leg not determined.
A	A - Absent. USFWS band verified absent. Only applies to USFWS band.

A.12 dom_NSO_BAND_STTS

NSO Banding Status. The banding status of the observed owl during the summary year. Codes are sorted in logical order.

Code	Description
B	B - Banded during summary year
C	C - Banded previous season, confirmed during summary year
M	M - Banded on another site previous season(s), moved to this site
O	O - Owl confirmed at another site during summary year
N	N - Visual determines bird is not banded
U	U - None of the above, but bird detected

A.13 dom_NSO_BRNCH_DFRM

NSO Branch Deformities. The amount of branch deformities on the nest tree. Codes are sorted in logical order.

Code	Description
Heavy	Heavy
Moderate	Moderate
Light	Light
None	None

A.14 dom_NSO_BSNO

Barred Owl Site Number Code. List of Barred Owl site numbers. All of Oregon and Washington is covered by a 500-ha hexagon grid with a unique number (20,000-99,999) assigned to each cell. This cell is the approximate size of a barred owl home range and the lowest numbers assigned to the cells begin in the SW corner of Oregon.

This is a lengthy domain used by multiple datasets. For the full list of values go to: https://gis.blm.gov/ORDownload/Domains/dom_NSO_BSNO.xls.

A.15 dom_NSO_BTM_SCNDRY_CLR

NSO Bottom/Secondary Color Code. The stripe color of striped bands or the bottom color of bicolored bands.

Code	Description
BAK	BAK - Black
BLU	BLU - Blue
DGR	DGR - Dark Green
GRE	GRE - Green
LGR	LGR - Light Green
MAG	MAG - Magenta
ORA	ORA - Orange

Code	Description
PNK	PNK - Pink (Coral)
PUR	PUR - Purple
RED	RED - Red
SKB	SKB - Sky Blue
TAN	TAN - Tan
WHI	WHI - White
YEL	YEL - Yellow
UNK	UNK - Color band seen; color not determined.
ZZZ	ZZZ - Color not yet available in the list.

A.16 dom_NSO_CLOUD_CVR

NSO Cloud Cover Code. The predominant cloud condition. Codes are sorted in logical order.

Code	Description
C	C - Clear
S	S - Scattered clouds
O	O - Overcast
F	F - Clear with ground fog

A.17 dom_NSO_CLR_BAND_PTRN

NSO Color Band Pattern Code. The pattern that appears on the owl band.

Code	Description
SOL	SOL - Solid
STR	STR - Three Stripe Band
HOR	HOR - Bicolored Band
VER	VER - Vertical Striped Band
DIA	DIA - Diagonally Striped Band
DOT	DOT - Polka Dot Band
SQR	SQR - Solid Band with Squares
ZIG	ZIG - Zig Zag Striped Band
TRI	TRI - Solid Band / Outlined Triangles Lower Half
PYR	PYR - Solid Band with Solid Triangles
PKS	PKS - Full Size Triangles from Top to Bottom
CHK	CHK - Checkerboard
UNK	UNK - Color band seen; pattern not determined.

Code	Description
ZZZ	ZZZ - Pattern not yet available in the list.

A.18 dom_NSO_CNPY_CLASS

NSO Canopy Classification Code. The characterization of the vegetation canopy structure for live nest trees. Codes are sorted in logical order.

Code	Description
Emergent	Emergent - > 10 meters above surrounding canopy
Dominant	Dominant - one of the tallest, largest tree canopies
Codominant	Codominant - less than dominant, but still large
Intermediate	Intermediate - making up lower portion of the main canopy
Suppressed	Suppressed - tree Canopy is below the main canopy

A.19 dom_NSO_CTR_CRTN

NSO Site Center Creation Rationale Code. The reason for the creation of a site center polygon.

Code	Description
Nest Tree	Nest Tree - confirmed use of a nest tree during season
Fledgling	Fledgling - fledgling(s) without a known nest tree
Pair	Pair - best single or averaged pair location(s)
Single	Single - best single or averaged single individual(s) location(s)
Historic Location	Historic Location - only used when other more precise information not known

A.20 dom_NSO_DAY_VST

NSO Day Visit Code. The general time of day when the visit occurs. Values are sorted in logical order.

Code	Description
Day	Day - Survey was conducted predominately between official sunrise and sunset
Night	Night - The survey was conducted predominately between official sunset and sunrise
Both	Both - The survey is conducted partially during daylight hours, but with greater than half of the effort during night hours. This will be summarized as a night visit. It can include core walks that are followed by a comprehensive night survey.

A.21 dom_NSO_DMGRPHY_AREA

NSO Demography Area Code. The name of the demographic study area under the Effectiveness Monitoring Plan for the Northern Spotted Owl (see section 11 of this document for more information on this document).

Code	Description
AD	AD - Other Demography Study Area
KL	KL - Klamath Study Area
NC	NC - North Coast Study Area
ND	ND - Not within a Demography Area
RB	RB - Roseburg Study Area (Tyee)
SC	SC - South Cascades Study Area

A.22 dom_NSO_FINAL_NEST_REPRO

NSO Final Nest/Reproduction Code. The final nesting and reproduction status for Northern Spotted Owl species for the summary year. This field summarizes the latest stage of nesting or reproduction at the site during the year. Codes are sorted in logical order.

Code	Description
N	N - Summary Nest Status equals N (Not nesting is confirmed on or before May 31st)
I	I - Summary Nest Status equals I (Nesting (Incubation) is confirmed on or before May 31st); Repro Success equals U (Unknown); there are no Visits with Nest Status O (Nestlings or branchers are detected or suspected)
O	O - Summary Repro Success equals U (Unknown), there is at least one Visit with Nest Status equal to O (Nestlings or branchers are detected or suspected)
F	F - Summary Repro Success equals F (Fledglings Observed before Sept 1st)
Z	Z - Summary Repro Success equals Z (Nesting is confirmed, but no young are produced (failed nest))
V	V - Summary Repro Success equals V (Unknown nesting status, but protocol methods were used to determine that no young were produced. Summary nesting status is unknown and at least two visits (separated by at least one week) where no young present were determined (on or after June 1st).)
X	X - None of above, visit record with Nest Status='X'. The Nest Status X code is a historic code and does not apply to new records.
U	U - None of the above
NU	NU - Partial non-nesting
IU	IU - Partial nesting confirmed
ZU	ZU - Partial no-young after initial incubation
VU	VU - Partial no-young, produced results
NR	NR - No Detections

A.23 dom_NSO_HM_RNGE_DIST

NSO Home Range Distance Code. The home range radius from the site center as defined in the USFWS Northern Spotted Owl Survey Protocol.

Code	Description
1.2	1.2 mi - OR Cascades
1.3	1.3 mi - OR Klamath
1.5	1.5 mi - OR Coast Range

A.24 dom_NSO_MSE_FATE

NSO Mouse Fate Code. Describes what happened to a mouse offered to an owl. Codes are sorted in logical order.

Code	Description
R	R - Offered, refused > 30 minutes (30-60 min. is the preferred time and is not counted in # mice)
D	D - Dropped, not retrieved (Does not count towards # of mice taken)
E	E - Taken and eaten
F	F - Taken to mate who ate it
G	G - Taken to mate who cached it
M	M - Taken to mate, who ate or cached it
N	N - Taken to nest
C	C - Taken and cached or fell asleep
S	S - Taken to second young
T	T - Taken to third young
U	U - Taken but unable to relocate (unknown fate)
X	X - Taken and eaten or cached
Y	Y - Taken to first young
Z	Z - Taken to mate but unable to relocate mate (unknown fate)
V	V - Unknown fate, outcome not recorded
P	P - Taken to mate who held or fell asleep
Q	Q - Taken, held or bird fell asleep
H	H - Taken to mate, outcome not recorded

A.25 dom_NSO_MSNO

Northern Spotted Owl Master Site Number Code. List of master site numbers. Numbers are assigned to designated Northern Spotted Owl sites under a statewide numbering system coordinated by the Oregon Cooperative Fish and Wildlife Research Unit.

This is a lengthy domain used by multiple datasets. For the full list of values go to: https://gis.blm.gov/ORDownload/Domains/dom_NSO_MSNO.xls.

A.26 dom_NSO_NEST_STTS_SPPRT

NSO Nest Status Support Code. Additional information to support the documented nesting status. Codes are sorted in logical order.

Code	Description
E	E - Egg seen in the nest
B	B - Brood patch absent, captured female
R	R - Female seen roosting > 60 minutes
D	D - Detected visually or audibly
M	M - Inferred through mousing
N	N - No Data Recorded, includes No Response

A.27 dom_NSO_NEST_TREE_LOC

NSO Nest Tree Location Code. Indicates the location of the nest tree.

Code	Description
L	L - At least one visit where nest tree located
A	A - Not located but approximately known
U	U - No visits with code 'L' or 'A'
C	C - Center of activity (no tree) - fledglings located by June 30
D	D - Center of activity (no tree) - fledglings located between July 1-31
E	E - Center of activity (no tree) - fledglings located between Aug 1-31

A.28 dom_NSO_NEST_TYPE

NSO Nest Type Code. Describes the type of nest. Codes are sorted in logical order.

Code	Description
Top Cavity	Top Cavity
Side Cavity	Side Cavity
Platform	Platform
Other	Other
Unknown	Unknown

A.29 dom_NSO_NSTNG_STTS

NSO Visit Nesting Status. The nesting status for the site based only on the information gathered during the visit. Does not consider cumulative information from previous survey visits. Codes are sorted in logical order.

Code	Description
I	I - Incubation or brooding, this includes a female detected in a nest tree

Code	Description
O	O - Nestlings or branchers are detected or suspected. Use this code if mice are taken to a cavity on or after June 1st
F	F - Fledglings observed
N	N - Not nesting, can only be used on or before May 31st. Not nesting determinations before April 1st will not be used for the yearly summary
Y	Y - No young present. Use only for visits where a valid reproduction survey is conducted on or after June 1st
C	C - Pre-nesting activity (copulation, etc.). Use this code before April 1st
U	U - Unknown, there is insufficient information to determine nesting/reproductive success.
NR	NR - No Response

A.30 dom_NSO_NSTNG_STTS_SUM

NSO Summary Nesting Status Code. Lists the nesting status for the site for the summary year. Data is a combination of all the visits for the year. Codes are sorted in logical order.

Code	Description
I	I - Nesting is confirmed on or before May 31st
N	N - Not nesting is confirmed on or before May 31st
U	U - Unknown nesting status
NU	NU - Partial non-nesting status
IU	IU - Partial nesting confirmed
NR	NR - No detection

A.31 dom_NSO_OBS_TYPE

NSO Owl Observation Type Code. Designates how the owl was observed. Codes are sorted in logical order.

Code	Description
AN	AN - Auditory, no bands read
VN	VN - Visual, no bands read
VB	VB - Color band read/bird free
VI	VI - Color band seen, color/pattern not determined (this is an incomplete/ partial band read where one or more of the color band fields is unknown (CB leg, pattern, top color, bottom color)
VO	VO - Previous on 1 site, now another within 1 year
UB	UB - Visual, unbanded. Visual, actually confirm that the bird is unbanded.
BB	BB - New bands attached (first) (first attachment of a USFWS band)
BR	BR - Color band replaced. USFWS band was previously attached. This is used when you change a color band, most often when replacing a juvenile band/ cohort band.
BC	BC - Color band attached, USFWS band present. USFWS band was previously attached (adding a color band to an owl that already has a USFWS band).

Code	Description
BN	BN - New Bands attached (color only). Color band attached, no USFWS band attached. Only a color band is on an owl, should be extremely rare.
CB	CB - Bands read with bird in hand. No bands added or changed.
MO	MO - Mortality
VT	VT - Telemetry. Use if radio transmitter is attached, telemetry used to locate the owl, and none of the above codes are appropriate (owl never seen or heard).
UN	UN - Unknown

A.32 dom_NSO_OWL_SEX

NSO Owl Sex Code. The gender of the observed bird. Codes are sorted in logical order.

Code	Description
M	M - Male
F	F - Female
U	U - Unknown (use unknown for fledglings, nestlings, or branchers)

A.33 dom_NSO_PAIR_STTS

NSO Visit Pair Status Code. The status of any birds detected during the current visit. Does not use cumulative information from throughout the year to determine on how to code. Codes are sorted in logical order.

Code	Description
P	P - Pair and/or 1 adult/sub with young
A	A - Pair and additional adults/subs
S	S - Single bird detected
J	J - Juveniles found, no adults encountered
U	U - Two birds of same species, male and female, pair relationship unknown
X	X - Unknown pair relationship, may include unknown sex or incomplete data
Z	Z - 2 or more individuals of same sex, pair relationship not valid
N	N - No Response

A.34 dom_NSO_PAIR_STTS_FWS

NSO Summary FWS Pair Status. Occupancy status as determined using the 2011 (revised 2012) USFWS survey protocol. Codes are sorted in logical order.

Code	Description
P	P - Pair
R	R - Resident Single
T	T - Two owls, one is Resident

Code	Description
N	N - Not Occupied
I	I - Incidental Detection
U	U - Unknown, insufficient data to meet any status above

A.35 dom_NSO_PAIR_STTS_SUM

NSO Summary Pair Status Code. Describes the pair status for the summary year. Codes are sorted in logical order

Code	Description
A	A - Pair with additional adult
P	P - Pair
U	U - Male and female with one meeting resident single
W	W - Two or more birds of the same sex, no member of the opposite sex
S	S - Resident single sex; > 5 visits
B	B - Resident single sex; <= 5 visits
X	X - At least 1 owl on one visit but does not meet the criteria of any of the above codes. Usually a single response by a bird.
N	N - No owls; > 5 visits; > 3-night visits. Not occupied, high survey effort.
K	K - No owls; > 2 visits; >= 2-night visits. Not occupied, moderate survey effort.
Z	Z - No owls; > 2 visits. Unknown occupancy, low survey effort.
Q	Q - No owls; < 3 visits. Unknown occupancy, very low survey effort.

A.36 dom_NSO_PRECIP_CND

NSO Precipitation Condition Code. Describes the predominant precipitation condition during the visit.

Code	Description
Dry	Dry
Fog	Fog
Hail	Hail
Intermittent rain	Intermittent rain
Light rain/drizzle	Light rain/drizzle
Misty rain	Misty rain
Rain	Rain
Snow	Snow
Thunderstorm	Thunderstorm

A.37 dom_NSO_RCRD_STTS

NSO Summary Record Status Code. Indicates if the summary record has been user edited, and if so, how. Codes are sorted in logical order.

Code	Description
N	N - No edits
Y	Y - Yes, edits
C	C - Complete record

A.38 dom_NSO_REPRO_SUCC

NSO Summary Reproductive Success. Describes the reproductive success for Northern Spotted Owls during the summary year. Codes are sorted in logical order.

Code	Description
F	F - Fledglings Observed before Sept 1st
Z	Z - Nesting is confirmed, but no young are produced (failed nest)
V	V - Unknown nesting status, but protocol methods were used to determine that no young were produced. Summary nesting status is unknown and at least two visits (separated by at least one week) where no young present were determined (on or after June 1st).
U	U - Unknown
ZU	ZU - Partial nesting but no young produced (failed nest) status. Only one visit with status when two are required.
VU	VU - Partial no-young, produced results
NR	NR - No detections

A.39 dom_NSO_SITE_TYPE

NSO Site Type Code. The short code that represents the name of the owl species.

Code	Description
1	MSNO Northern Spotted Owl Site
2	TSNO Temporary Site
3	BSNO Barred Owl Site

A.40 dom_NSO_SPCS

NSO Species Code. The short code that represents the name of the owl species.

Code	Description
STOC	STOC - Northern Spotted Owl
STVA	STVA - Barred Owl, only barred owls are detected

Code	Description
SBOH	SBOH - Spotted Owl - Barred Owl hybrid, any generation, (no pure-bred spotted owls present). This code will also be used on the rare instances when a hybrid/STVA mixed pair are encountered
STUN	STUN - Genus Strix, unknown species
STMX	STMX - Mixed pair (one pure bred spotted owl present). Provide a description of the species composition in the Comment field, e.g., Male spotted owl with a female barred owl.

A.41 dom_NSO_SRV_MTHD

NSO Survey Method Code. The method used for surveying. Codes are sorted in logical order.

Code	Description
1	1 - Calling; continuous walking survey, includes walking into potential owl habitat or historical core searches.
2	2 - Calling; spot call at evenly spaced intervals
3	3 - Calling; spot call at irregular intervals or assigned points.
A	A - ARU; passive acoustic monitoring using autonomous recording unit
T	T - Telemetry
V	V - Visual search, no calling
E	E - Unsolicited response, no calling (audible only)
U	U - Unknown, for old records

A.42 dom_NSO_SRV_TYPE

NSO Survey Type Code. The type of survey performed at the station. Codes are sorted in logical order.

Code	Description
Callback	Callback - Response to callback survey
ARU	ARU - Passive acoustic monitoring using autonomous recording unit (ARU)
Incidental	Incidental - Incidental observation of an owl

A.43 dom_NSO_STRCTRL_EDGE_TYPE

NSO Structural Edge Type Code. Describes the nearest different type of habitat (structural edge) from the nest tree. Refer to *Management of Wildlife and Fish Habitats in forests of western Oregon and Washington* (Brown, 1985) for more information about habitat types. Codes are sorted in logical order.

Code	Description
Old Growth	Old Growth
Mature	Mature
Young	Young
Pole	Pole

Code	Description
Sapling	Sapling
Clearcut	Clearcut
Hardwoods	Hardwoods
Mixed Age	Mixed Age
Two Edge Types	Two Edge Types
Maintained	Maintained
Agricultural	Agricultural
Open Water	Open Water
Rock Outcrop	Rock Outcrop
Meadow	Meadow
Large Gap	Large Gap
Other	Other

A.44 dom_NSO_TAB_CLR

NSO Band Tab Color Code. The color of the band tab if tabs are being used. Codes are sorted in logical order.

Code	Description
BAK	BAK - Black
BLU	BLU - Blue
DGR	DGR - Dark Green
FOR	FOR - Fluorescent Orange
FPK	FPK - Fluorescent Pink
GRE	GRE - Green
GRY	GRY - Grey
LIM	LIM - Lime (Fluorescent Green)
ORA	ORA - Orange
PUR	PUR - Purple
RED	RED - Red
SKB	SKB - Sky Blue
WHI	WHI - White
YEL	YEL - Yellow
NON	NON - No tab on band, absence of tab verified
UNK	UNK - Color band seen; color not determined
ZZZ	ZZZ - Color not yet available in the list

A.45 dom_NSO_TAIL_TIP_CLR

NSO Tail Tip Color Code. Describes the color of the owl tail tip. Codes are sorted in logical order.

Code	Description
White	White - implies sub-adult or fledgling
Mottled	Mottled - implies adult
Unknown	Unknown - observed and not determined

A.46 dom_NSO_TAIL_TIP_SHP

NSO Tail Tip Shape Code. Describes the shape of the owl tail tip.

Code	Description
Pointed	Pointed - presence of a wisp near the tip, implies 1 year old
Rounded	Rounded - 2 year old or adult
Unknown	Unknown - observed and not determined

A.47 dom_NSO_TOP_PRMRY_CLR

NSO Band Top/Primary Color Code. The main color of the band, or for bicolored bands, the top color. Codes are sorted in logical order.

Code	Description
BAK	BAK - Black
BLU	BLU - Blue
DGR	DGR - Dark Green
FPK	FPK - Fluorescent Pink
FYL	FYL - Fluorescent Yellow
GRE	GRE - Green
LGR	LGR - Light Green
MAG	MAG - Magenta
ORA	ORA - Orange
PNK	PNK - Pink (Coral)
PUR	PUR - Purple
RED	RED - Red
SIL	SIL - Silver
SKB	SKB - Sky Blue
TAN	TAN - Tan
WHI	WHI - White
YEL	YEL - Yellow

Code	Description
UNK	UNK - Color band seen; color not determined
ZZZ	ZZZ - Color not yet available in the list

A.48 dom_NSO_TREE_SPCS

NSO Nest Tree Species. USDA Plants database symbol for nest tree species. For more information: https://plants.usda.gov/home. Codes are sorted by domain description.

Code	Description
CANO9	Alaska cedar
MALUS	apple
PSMA	bigcone Douglas-fir
ACMA3	bigleaf maple
PIMU	Bishop pine
PREM	bitter cherry
POBAT	black cottonwood
PIBR	Brewer spruce
ABBR	bristlecone fir
PIAR	bristlecone pine
QUKE	California black oak
PISA2	California foothill pine
UMCA	California laurel
QUAG	California live oak
ABMA	California red fir
PLRA	California sycamore
TOCA	California nutmeg
QULO	valley oak
QUCH2	canyon live oak
POPUL	cottonwood
PICO3	Coulter pine
CUPRE	cypress
PSME	Douglas-fir
PIEN	Engelmann spruce
EUCAL	eucalyptus
PIBA	foxtail pine
SEGI2	giant sequoia
CHCHC4	giant chinquapin

Code	Description
ABGR	grand fir
CRATA	hawthorn
CADE27	incense cedar
QUWI2	interior live oak
PIJE	Jeffrey pine
PIAT	knobcone pine
PIFL2	limber pine
PICO	lodgepole pine
HEBA5	Modoc cypress
PIRA2	Monterey pine
TSME	mountain hemlock
ABPR	noble fir
QUGA4	Oregon white oak
CONU4	Pacific dogwood
ARME	Pacific madrone
ABAM	Pacific silver fir
TABR2	Pacific yew
PINUS	pine
PIMO	singleleaf pinyon
PIPO	ponderosa pine
CHLA	Port Orford cedar
POTR5	quaking aspen
ALRU2	red alder
SESE3	redwood
ABMAS	Shasta red fir
PISI	Sitka spruce
ABLA	subalpine fir (ABLA)
ABLAL	subalpine fir (ABLAL)
LALY	subalpine larch
PILA	sugar pine
LIDE3	tanoak
ABSP	True Fir - Species Unknown
UNKN	Unknown Species
TSHE	western hemlock
JUOC	western juniper
LAOC	western larch

Code	Description
BEPAP	paper birch
THPL	western redcedar
PIMO3	western white pine
ALRH2	white alder
ABCO	white fir
PIAL	whitebark pine
SALIX	willow

A.49 dom_NSO_TSNO

NSO TSNO Code. List of temporary site numbers.

This is a lengthy domain used by multiple datasets. For the full list of values go to: https://gis.blm.gov/ORDownload/Domains/dom_NSO_TSNO.xls.

A.50 dom_NSO_VST_TYPE

NSO Visit Type Code. The intent of the survey visit. Codes are sorted in logical order.

Code	Description
OC	OC - Occupation Only Survey. All completed visits to a site. If the visit is not completed, but male and female occupation is determined, use OC.
AD	AD - Additional Visit. Any visits which do not classify as Occupation visits, should be coded as Additional visits.

A.51 dom_NSO_WND_CND

NSO Wind Condition. Describes the predominant wind condition. Codes are sorted in logical order.

Code	Description
Calm	Calm - no wind
Light Breeze	Light Breeze - does not affect detection
Moderate Wind	Moderate Wind - may affect detection
Windy	Windy - affects detection
Gusty Wind	Gusty Wind - Gusty wind with periods of calm (affects detection part of time)

A.52 dom_NSO_WTR_TYPE

NSO Permanent Water Type Code. The list of permanent water types that may appear near NSO nest trees.

Code	Description
River or Large Perennial Creek	River or Large Perennial Creek

Code	Description
Small Perennial Creek	Small Perennial Creek
Spring or Seep	Spring or Seep
Pond or Lake	Pond or Lake

A.53 dom_SLOPE_PSTN

Slope Position Code. Describes the location on the slope.

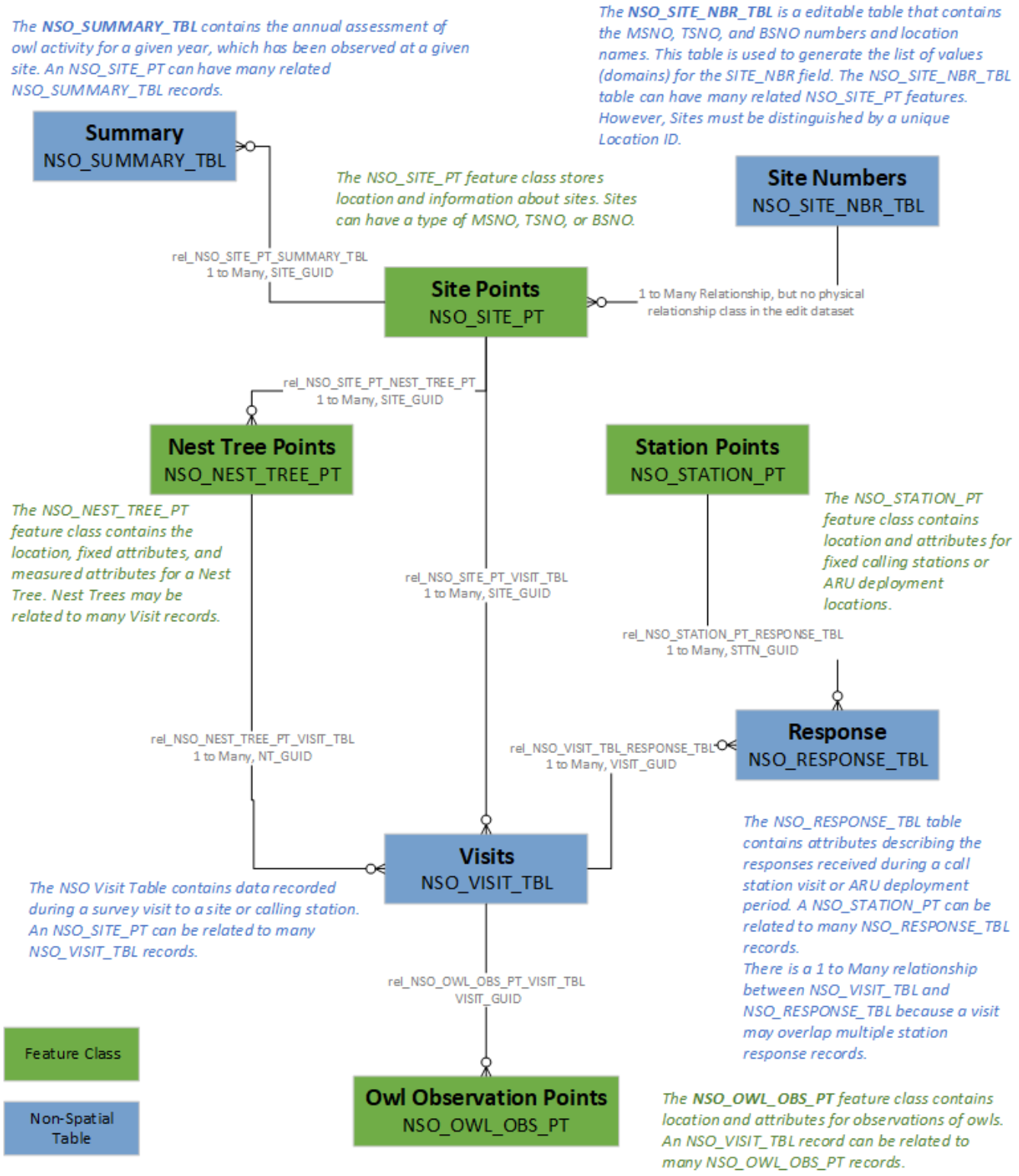
Code	Description
Bottom of Drainage	Bottom of Drainage
Large Flat Bench	Large Flat Bench
Lower 1/3 of Slope	Lower 1/3 of Slope
Middle 1/3	Middle 1/3
Well defined ridge top	Well defined ridge top
Upper 1/3	Upper 1/3

A.54 dom_YN

Yes/No Flag. Yes/No flag.

Code	Description
Y	Yes
N	No
U	Unknown

B NSO Entity Relationship Overview



C Standards and Guidelines for Spotted Owl Occupancy, Nesting Status, and Reproduction Surveys

These guidelines are for BLM spotted owl surveys and the year-end summaries derived from those surveys. They are intended to guide the survey effort and provide the basic information necessary to produce the best quality of data for those summaries. There are other survey protocols that should be consulted and followed, depending on the objective of your surveys. Two of the more commonly used protocols are the 1992 *USFWS Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owl* and the 1999 *Northern Spotted Owl Effectiveness Monitoring Plan for the Northwest Forest Plan*. See Section 11 References for a complete citation of these protocols. Spotted owl survey efforts should be conducted annually on or after March 15th and before September 1st (this is the USFWS survey period) to determine occupancy, nesting status and reproductive success at both known and potential owl sites. An exception to this rule is the Oregon Coast Range, where the survey period may begin on March 1st (USDI Fish and Wildlife Service, 2012, p. 9).

C.1 Occupancy Surveys

Occupied Status

At the conclusion of the survey season the occupancy for each site is determined by reviewing the classifications for each of the individual visits. The classification standards below provide information for the review of visit cards and the recording data in the summary table of the dataset. In summarizing the occupancy at the site for the year, it is necessary to determine which of the following classifications best fit the situation portrayed by the cumulative visit results. There may be situations where banded individuals are confirmed at several sites. The occupancy of both sites or survey areas will include the information on these individuals. For example, two sites may have a resident single determination from the same individual. This should be documented in the survey summary.

Pair - a pair is confirmed on the site if any of the following occur:

a) A male and female are heard and/or observed in close proximity (about 1/4 mile) to each other on at least 2 individual visits at least 1 week apart during the season.

or

b) A male takes a mouse to a female on at least one visit during the season. This includes instances on or after 15 March and on or before 31 May where the male takes a mouse to a candidate nest tree and enters a cavity presumably giving the mouse to a female even though she may not be seen or heard.

or

c) A female is detected (seen or heard) on a nest on at least one visit during the season.

or

d) One, or both, adults are observed with young on at least one visit during the survey season. Young alone are not sufficient evidence to establish pair presence since young barred owls look like spotted owl young. Later in the season (August) plumage may be used to determine the species.

or

e) A banded male and female confirmed on a site in a previous year are both present at a site (seen either together or singly) on at least one visit each, during the season. The previous confirmation did not have to occur at the present site.

Resident Single - a resident single owl occupancy is comprised of two subcategories (S and B) used to separate survey effort. Both are considered equal in terms of describing single occupancy, but the S category is definitive in describing lack of pair occupancy based on survey effort.

An "S" is assigned to the site for the year-end summary when:

a) Individual visits show detection of a single owl of the same sex a minimum of 2 times separated by at least 1 week in any one year or with repeated detections (any combination totaling 3 in a two-year period) in consecutive years. At least 1 of the 3 detections for consecutive year's data and 1 of the 2 for any single year's data must occur before 1 August and a total of six visits are completed in the current year without the detection of another owl of the opposite sex.

or

b) The banded individual was confirmed at the site during a previous year.

A "B" is assigned for the year-end summary when:

a) individual visits show detection of a single owl of the same sex a minimum of 2 times separated by at least 1 week in any one year or with repeated detections (any combination totaling 3 in a two-year period) in consecutive years. At least 1 of the 3 detections for consecutive year's data and 1 of the 2 for single year's data must occur before 1 August, but there were not six visits completed in the current year to determine whether another owl of the opposite sex was present.

or

b) The banded individual was confirmed at the site during a previous year.

Pair Status Unknown - pair status unknown occupancy ("U") is assigned for the year-end summary when the individual visit information shows the detection of 2 owls of the opposite sex where at least one of 2 will satisfy the S or B resident single criteria, but insufficient information is available to satisfy the pair classification criteria.

Unknown Status - an unknown status occupancy ("X") is assigned for the year-end summary whenever the individual visit information shows the detection of 1 owl (either sex) or 2 owls of the either sex, but insufficient information to satisfy the classification as a pair, resident single or pair status unknown.

Not Occupied or Unknown Occupancy

Not Occupied - a not occupied determination is comprised of two subcategories (N and K) used to separate survey effort. Both are considered equal in terms of describing non occupancy, but the N category is more definitive in describing lack of pair occupancy based on survey effort.

An "N" is assigned for the year-end summary when the visit information shows that at least six visits were made with 4 being at night and no response was detected.

A "K" is assigned for the year-end summary when the visit information shows that at least three visits were made with two being at night and no response was detected.

Unknown Occupancy - an unknown occupancy is comprised of two subcategories (Z and Q) used to separate survey effort. Both are considered equal in terms of describing unknown occupancy, but the S category is definitive in describing lack of pair occupancy based on survey effort.

A "Z" is assigned for the year-end summary when:

a) there was no response detected and there were less than 6 visits conducted

or

b) there were at least six visits, but less than 4 at night.

A "Q" is assigned for the year-end summary when:

a) there was no response detected and there were less than 3 visits conducted

or

b) there were at least three visits, but less than 2 at night.

C.2 Nesting Status

This category is comprised of the subcategories of nesting status and number of young fledged. The following definitions and explanations provide information for survey of sites and recording data in the Visit and Summary tables of the database.

Nesting Status

The determination of nesting status yields information on whether the subject owls being surveyed are nesting, non-nesting or their nesting status is unknown. In the process of making these conclusions information is also gathered on the location of nest trees which is valuable in accurately locating site centers for the Site table of the database.

Surveys to determine nesting status are normally conducted between 1 April and 31 May however the initiation may be adjusted based on local data for nest initiation. Survey visits conducted prior to the initiation date may be counted toward determining nesting status if they indicate positive nesting activity, but all surveys to substantiate non-nesting must occur within the survey period (1 April - 31 May). Nesting may also be confirmed by the location of young at any time during the season provided that at least one adult is present, or plumage is present on the young to permit species identification.

The survey visits should be spread across the time period according to the time frames described below.

The technique of "mousing" the owls as described below is a key procedure used in the determination of nesting status. **Caution**: do not "mouse" the owls any more than is necessary to obtain the information. Through this procedure the owls may be more vulnerable to detection and possible contact with a predator. The same is true for calling in and around nest trees in order to contact the owls to conduct the "mousing".

Description of the Mousing Procedure

1. Locate one or both members of the pair during the day and offer them mice or other small prey items.

2. Whenever the owl(s) take the offered prey or are noted with natural prey, record the fate of each prey item (eaten, cached, fed to female, fed to young). The fate of prey information may be important during the determination of the nesting status.

3. If the owl eats or caches the prey item, continue to offer additional prey items until the owl 1) sits on the prey for 30 to 60 minutes, 2) refuses to take an offered prey item after 20 to 30 minutes, 3) carries the prey away or 4) takes at least 4 prey items. The visit may be ended if any of the preceding occur, however the owl must take at least 2 of the offered prey items to be considered a valid nesting or reproductive survey. If the owl flies away with the prey, follow and attempt to determine the fate of the prey. Additional information on the mousing technique may be reviewed in Forsman, E.D. 1983. Methods and materials for locating and studying spotted owls. USDA Forest Service, General Tech Rept. PNW-162.

4. The "mousing technique" is a key element in classifying the nesting status of a site, thus observers should make a concerted effort to get the owl to take a mouse. This may involve innovative presentations to encourage the owl to take the prey. Offer mice to the other member of the pair if one was not receptive.

Nesting Confirmation

Two observations, at least one week apart, are required to confirm that the pair is nesting if the first observation is made before May 1. Nesting observed prior to April 1 may be used to satisfy the 2 visit criteria. After May 1, a single observation is sufficient. The two observations are necessary because owls may show behavior indicating nesting early in the season without actually laying eggs. The second visit is needed to confirm that the owl is incubating.

Nesting is confirmed if on 2 visits before May 1st or 1 visit after May 1st any of the following are observed.

- The female is detected (seen or heard) on the nest; or
- Either member of the pair carries natural or observer-provided prey to the nest; or
- Young are detected in the presence of one or both adults. Young alone are not sufficient to determine nesting since young barred owls look like young spotted owls in the first months. Later in the summer (August) the distinction can be made based on plumage differences.

Note: Previously, a female with a brood patch when examined in hand mid-April to mid-June was also accepted as confirmation of nesting. Due to variability associated with this method both among owls and among observers this should no longer be used as a method of nesting confirmation.

Non-Nesting Confirmation

Two observations at least 3 weeks apart are required to confirm that no nesting has occurred if the first observation occurs in April. If the first observation occurs between May 1st and May 15th, 1 week between visits will suffice. For the period of May 16th through May 31st, non-nesting may be confirmed with only one visit.

Be aware that females with young may roost outside the nest cavity in late May, thus observations late in the period may be misleading and the observer may wish to schedule another visit(s) to the site after the fledging date to verify the non-nesting call. Non-nesting is confirmed within the survey schedule described above if any of the following occur.

- The female is observed roosting for 60 minutes on two separate occasions, particularly early in the season (April). Be aware that females with large nestlings may roost outside the nest in warm weather thus surveys in May that yield females exhibiting this behavior may warrant a check in mid-June to verify that no young are present.
- The female does not possess a brood patch when examined in hand between mid-April and mid- June. This need only be observed 1 time.
- One member of the pair takes at least 2 prey on two separate visits and either caches, sits with prey for extended period of time (>30 minutes) or refuses (ignores offered prey for at least 30 minutes) to take any prey beyond the 2 minimum. One of the owls must take the minimum number of mice on the visits in order for the survey to be valid for non-nesting. If mice are not taken, the visit does not count toward a survey visit to support non-nesting.

In instances where the owl(s) leave the area with prey, and you are not able to follow to determine the fate of the prey the survey visit cannot be used in support of a non-nesting classification and cannot be counted toward the 2 required visits. Owls that will not take prey and do not provide insight as to whether they are nesting using the other criteria would be classified as unknown nesting status (see below).

Unknown Nesting Status

With the exception of the brood patch criterion or the documentation of the presence of young, the assignment of nesting or non-nesting will depend upon data collected prior to June 1st. Unknown nesting is assigned to sites where either of the following occur:

- Owls are first found after 1 June, without young.
- Owls were found prior to 1 June, but no determination of nesting or non-nesting was either completed or attempted.

C.3 Reproductive Success

For any pair that was determined to be nesting, reproductive success surveys should be conducted soon after fledging dates (usually late May/early June) to count the number of young fledged (birds out of the nest tree). Reproductive surveys should also be conducted at sites where nesting status was unknown. Biologists may choose to survey where non-nesting was based on late season data and the observer is seeking further verification. Visits should occur promptly after the fledging date to reduce the influence of post fledging mortality on the number of young observed. Determination of the number of young fledged should be done according to the guidelines below. In the process, data on the total number of young seen (fledged and those not yet fledged) will also be obtained. The survey effort should strive to have the counts for number of young fledged equal total number of young seen.

Young Fledged

Search the area surrounding the known or suspected nest tree area. The adults should be located and "moused" with the expectation that they will deliver the prey to the young revealing their location to the observer.

If young are detected during a reproductive success visit, record the number seen or heard and of that number how many have fledged (left the nest tree). Conduct at least one follow-up visit within 3 to 10 days to locate additional young that may have been missed or to determine if any young that had not fledged as of the previous visit have fledged in the interim. If no additional young are found in the follow-up or the follow-up is not done, the initial number of young counted (total number of juveniles and total number fledged) is recorded as the final number.

Failed Nest

Search the area surrounding the known or suspected nest tree area. The adults should be located and "moused" with the expectation that they will deliver the prey to the young revealing their location to the observer.

If the adult owls take at least 2 prey items and cache, sit with, or refuse additional offerings without any detection of young by the observer on at least 2 occasions separated by at least a week the number of young fledged is recorded as 0.

In instances where nesting pairs were known and no response was obtained from the adults after the minimum 2 visits separated by at least a week (before July 1st) and no young were otherwise detected, the number of young fledged is recorded as 0.

You may use a combination of one visit where adult owls take at least 2 prey items without detection of young by the observer and one visit where no response is obtained from the adults (before July 1st), the number of young fledged is recorded as 0.

Unknown Nesting, No Young Present

If the adult owls take at least 2 prey items and cache, sit with, or refuse additional offerings without any detection of young by the observer on at least 2 occasions on or after June 1st separated by at least a week the reproductive success is no young present.

You may use a combination of one visit where adult owls take at least 2 prey items without detection of young by the observer on or after June 1st and one visit where Not Nesting is determined on or before May 31st, separated by at least a week the reproductive success is no young present.

D Summary Activity Center Rationale Business Rules

The Summary data attribute for Activity Center Rationale (ACTVTY_CTR_RTNLE) has established rules for the handling "null" data situations. This status code provides the rationale behind the UTMs which identify the MSNO summary site location, in each summary year record.

For summary data starting in 2015 and going forward, null (blank) data will not be allowed for activity center rationale. If a summary record is entered, but the detection of owl activity was undetermined (or not done for the year), then one of the following Activity Center Rationale codes must still be entered:

- U - Unknown rationale with detections, defaulted to IDNO coordinate
- NR - No detections, defaulted to IDNO coordinate
- X - No detection, point based on previous year(s) activity center(s)

Additionally, historic summary records which mostly have no activity center rationale value (since this attribute was added in 2015), will have their null values updated, according to these rules:

- If the Total Summary Owl Count >= 1, then the ACTVTY_CTR_RTNLE value will be assigned a "U."
- If the Total Summary Owl Count = 0, then the ACTVTY_CTR_RTNLE value will be assigned a "NR."

Note: If there are "determinative" Owl Activity records entered for years greater than or equal to 2015, enter one of the other more precise activity center rationale values, found in the dom_NSO_ACTVTY_CTR_RTNLE.

E Summary Calculation Rules

This section provides a technical outline of the rules applied by the automated summary process. Unless otherwise noted, most of the calculated summary outputs will apply conditions in "Qualifiers Set A" to determine which visit records to use. Since owl observation records belong to a parent visit record, they are also affected by this default qualifier set.

Qualifier Set A:

SITE_TYPE (Site Type) = "1" (MSNO)

SPCS_SRCHD (Species Surveyed For) = "STOC"

Visit category = MSNO

For visit records belonging to the site district owner occurring during the summary year

Additionally, calculations that require the identification of a specific owl (or the repeat observations of a specific owl), will typically rely on the owl band information specified in Qualifiers Set B to determine which owl records to use (and/or which records to group together as a similar event).

Qualifiers Set B:

OO_CBL/OO_CBP/OO_TPC/OO_BSC/OO_TC Partial Owl Band Concatenation info.

(ColorBandLeg / ColorBandPattern / PrimaryColor / SecondColor / TabColor)

Summary Field Calculations

NUM_DAY_VST (Qualifier Set A) - The total number of day visits occurring at the IDNO site during the summary year. These visits must have a DAY_VST value The visit DAY_VST field must equal "Day." Note: visit records reusing the same visit number to tied them together will only count as one visit.

NUM_NGHT_VST (Qualifier Set A) - The total number of night visits occurring at the IDNO site during the summary year. DAY_VST value of "Both" will count as night visits. Note: visit records reusing the same visit number to tied them together will only count as one visit.

NUM_MALE (Qualifier Set A) - The total number of unique male adult owls observed as residents of the IDNO site during the summary year, plus the total number of additional owls, recorded as adult males. These owls must have an age class of A (Adult), S (Subadult) or D (Adult/Subadult) and owl sex of M (Male).

NUM_FEM (Qualifier Set A) - The total number of unique female adult owls observed as residents of the IDNO site during the summary year, plus the total number of additional owls, recorded as adult females. These owls must have an age class of A (Adult), S (Subadult) or D (Adult/Subadult) and owl sex of F (Female).

NUM_JUV (Qualifier Set A) - The total number of unique juvenile owls observed as residents of the IDNO site during the summary year. These owls must have an age class of F (Fledgling) or O (Nestlings or Branchers).

NUM_FLDGLNG (Qualifier Set A) - The total number of unique fledgling owls observed as residents of the IDNO site during the summary year. Plus, the total number of additional owls, recorded as fledglings. These owls must have an age class of F (Fledgling). Note: the number of fledglings is a subset of the number of total juveniles.

NUM_UNK (Qualifier Set A) - The total number of unique unknown sex owls observed as residents of the IDNO site during the summary year. Plus, the total number of additional owls, recorded as unknown sex. These owls must have an age class of A (Adult), S (Subadult) or D (Adult/Subadult) and owl sex of U (Unknown).

General explanation that applies to the following summary status assignments: in most cases, each summary status calculation and the resulting output value will be processed in descending priority order. Once the conditions for a specific status result test is met, then the remaining tests for that status code will be skipped. Once conditions for a particular status are met, the automated process will then jump to the next status code to be processed.

The following summary status condition tests are listed in this descending priority order.

PAIR_STTS_SUM - assigns the overall pair status values for the IDNO site for the summary year.

A - Pair with Additional Adult. One of the following conditions exist when the number of males > 1 or number of females > 1:

I. Two distinct visits separated by at least one week, and each have a visit Pair Status of "P".

II. In 1 or more visits, a male was observed with a Mouse Fate of "F", "G", "M", or "Z".

III. In 1 or more visits, there is a visit Nesting Status of "I", "O", or "F".

IV. An Owl Band was observed, that matched an Owl Band observed in previous year - for both a male and a female owl, being observed in the current year.

P - Pair. One of the following conditions exist, when the number of males = 1 and number of females = 1:

I. Two distinct visits separated by at least one week, and each have a visit Pair Status of "P".

II. In 1 or more visits, a male was observed with a Mouse Fate of "F", "G", "M", or "Z".

III. In 1 or more visits, there is a visit Nesting Status of "I", "O", or "F".

IV. An Owl Band was observed, that matched an Owl Band observed in previous year - for both the male and the female owl, being observed in the current year.

V. The number of males >= 1 and number of females >= 1 with repeat observations of a male owl more than 6 days apart, and with repeat observations of a female owl more than 6 days apart.

U - Male and female with one meeting resident single. The following condition exists, when the number of males >= 1 and number of females >= 1:

I. With repeat observations of a male owl more than 6 days apart, OR with repeat observations of a female owl more than 6 days apart.

S - Resident single sex; > 5 visits or B - Resident single sex; <= 5 visits. One of the following conditions exist, when number of males >0 and number of females = 0 (or alternately when number of males =0 and number of females > 0):

I. The earliest Visit Date must be before August 1st; and the prior year's Summary had a Pair Status of 'S' or 'B' (along with the same Num male vs Num female situation): Then assign S when number of day visits + number of night visits (in current year) is > 5; otherwise assign B.

II. The earliest Visit Date must be before August 1; and there are 2 or more visits at least a week apart (in the current Summary Year): Then assign S when number of day visits + number of

night visits (in current year) is > 5; otherwise assign B.

W - Two or more birds of the same sex, no member of the opposite sex. One of the following conditions exist, when number of males >1 and number of females = 0 (or alternately when number of males =0 and number of females > 1):

X - At least 1 owl on one visit but does not meet the criteria of any of the above codes. Usually a single response by a bird. When number of males + number of females + number of Juveniles + number of Unknowns > 0; with no follow-up conditions.

N - No owls; > 5 visits; > 3-night visits. Not occupied, high survey effort. The following condition exists, when number of males + number of females + number of juveniles + number of unknowns = 0; and number of day visits + number of night visits is > 5, with the number of night visits > 3.

Z - No owls; > 2 visits. Unknown occupancy, low survey effort. One of the following conditions exists, when number of males + number of females + number of Juveniles + number of Unknowns = 0; and:

I. Number of day visits + number of night visits is > 5, with the number of night visits < 4.

II. Number of day visits + number of night visits is > 2 and < 6, with the number of night visits < 2.

K - No owls; > 2 visits; >= 2-night visits. Not occupied, moderate survey effort. The following condition exists, when number of males + number of females + number of juveniles + number of unknowns = 0; and number of day visits + number of night visits is > 2, with the number of night visits >= 2.

Q - No owls; < 3 visits. Unknown occupancy, very low survey effort. The following condition exists, when number of males + number of females + number of juveniles + number of unknowns = 0; and number of day visits + number of night visits is < 3.

PAIR_STTS_FWS - Assigns one the overall Pair Status for FWS values for the IDNO for the summary year, all values (except U) imply sufficient USFWS protocol surveys.

P - Pair. The following condition exists, when the number of males > 1 OR number of females > 1 with at least one visit recorded, having a visit Pair Status of "P".

R - Resident Single. The following condition exists, when number of males >0 AND number of females = 0 (or alternately when number of males =0 AND number of females > 0) with 3 visits that are each at least a week apart; Then assign R (Resident) when number of day visits + number of night visits is > 5.

T - Two owls, one is Resident. The following condition exists, when the number of males >= 1 AND number of females >= 1 with 3 repeat observations of a male owl, each more than 6 days apart, OR with 3 repeat observations of a female owl, each more than 6 days apart. Then assign T (Two birds, one is resident).

I - Incidental Detection. When the number of males + number of females + number of Juveniles + number of Unknowns > 0.

N - Not Occupied. The following condition exists, when number of males + number of females + number of Juveniles + number of Unknowns = 0:

I. Number of day visits + number of night visits is > 5, with the number of night visits > 5. Then assign N (Not Occupied).

II. Number of day visits + number of night visits is > 5, with the number of night visits > 2, when the Site Demography Area is "SC", "KL", "RB", "HJ", "AD" or "NC". Then assign N (Not Occupied).

U - Unknown, insufficient survey. None of the above conditions apply. Insufficient surveys to make a determination using the 2011 (revised 2012) USFWS survey protocol.

NEST_TREE_LOC - assigns one of the overall nest tree location codes for the IDNO site for the summary year.

L - At least one visit where nest tree located. When a visit exists with a nest tree located value of "L" (Located), for the IDNO in the summary year.

A - Not located but approximately known. When a visit exists with a nest tree located value of "A" (Approximate), for the IDNO in the summary year.

C - Center of activity (no tree) - fledglings located by June 30. When all the visits have a nest tree located value of "" (blank) or "U" (Unknown), for the IDNO in the summary year, and there is a visit record with a nesting status = "F" (Fledglings Observed), which was recorded on or before June 30.

D - Center of activity (no tree) - fledglings located between July 1-31. When all the visits have a nest tree located value of "" (blank) or "U" (Unknown), for the IDNO in the summary year, and there is a visit record with a nesting status = "F" (Fledglings Observed), which was recorded in the month of July.

E - Center of activity (no tree) - fledglings located between Aug 1-31. When all the visits have a nest tree located value of "" (blank) or "U" (Unknown), for the IDNO in the summary year, and there is a visit record with a nesting status = "F" (Fledglings Observed), which was recorded in the month of August.

U - No visits with code 'L' or 'A'. When all the visits have a nest tree located value of "" (blank) or "U" (Unknown), for the IDNO in the summary year, and none of the preceding nest tree located conditions were met.

NSTNG_STTS_SUM - assigns one of the nesting status values for the IDNO for the summary year.

I - Nesting is confirmed on or before 31 May . When there is at least one visit record with a nesting status of "I" (Incubation or Brooding) and:

I. That qualifying visit occurred in the month of May.

II. That qualifying visit occurred prior to May 1st and there was a second visit, also with a nesting

status of "I", which was at least one week earlier.

N - Not nesting is confirmed on or before 31 May. When there is at least one visit record with a nesting status of "I" (Incubation or Brooding) and that qualifying visit occurred between April 16th and May 31st.

N - Not nesting is confirmed on or before 31 May. When there is at least one visit record with a nesting status of "N" (Not Nesting) and:

I. That qualifying visit occurred between May 16th and May 31st.

II. That qualifying visit occurred between May 1st and May 15th and there was a second visit also with a nesting status of "N" and visits are at least one week apart.

III. That qualifying visit occurred between April 1st and April 30th and there was a second visit also with a nesting status of "N" and visits are at least three weeks apart.

IU - Partial nesting confirmed. When there is at least one visit that recorded a nesting status of "I" (Incubation or Brooding) and that qualifying visit occurred before May 1st. There was not a second confirming visit.

NU - Partial non-nesting status. Assigned this value when there is at least one visit record with a nesting status of "N" and that qualifying visit occurred between April 1st and May 15th. There was not a second confirming visit.

NR - No detection. No visits had an owl response = "Y."

U - Unknown nesting status. None of the preceding nest status conditions were met.

REPRO_SUCC - assigns one of the overall reproduction success status values for the IDNO site for the summary year.

F - Fledglings Observed before 9/1. When there is at least one visit recorded with a nesting status of "F" (Fledglings Observed and that visit occurred before the month of September.

Z - Nesting is confirmed, but no young are produced (failed nest). When the calculated/assigned summary nesting status was "I" (Visit Nest Status = "I" or "O", May or earlier) and:

I. There was at least one visit recorded with a nesting status of "Y" (No Young Present - Post June 1) and there was a second visit also with a nesting status of "Y" and visits are at least one week apart.

II. There was at least one visit recorded with a nesting status of "Y" (No Young Present - Post June 1) and there was a second visit also with a nesting status <> "Y" and owl response equals "N."

III. There were at least two visits recorded with a nesting status of "Y" (No Young Present - Post June 1) with visit dates in the month of June.

IV. There were at least two visits recorded with a response = "N" and the visit dates were in the month of June.

V - Unknown nesting status, but protocol methods were used to determine that no young were produced. Summary nesting status is unknown and at least two visits (separated by at least one week) where no young present were determined (on or after 1 June). When the calculated/assigned summary nesting status value was "U" and:

I. There was at least one visit recorded with a nesting status of "Y" (No Young Present - Post June 1) and there was a second visit also with a nesting status of "Y" and visits are at least one week apart.

II. There was at least one visit recorded with a nesting status of "N" (Not Nesting) and there was a second visit also with a nesting status of "Y" (No Young Present - Post June 1) and visits were at least one week apart.

ZU - Partial nesting but no young produced (failed nest) status. Only one visit with status when two are required. When the calculated/assigned summary nesting status value was "I" and there was one visit recorded with an owl response = "N" (No) with a visit date in the month of June. There was not a second confirming visit.

VU - Partial no-young, produced results. When the calculated/assigned summary nesting status value was "U" and there was one visit recorded with a nesting status of "Y" (No Young Present - Post June 1). There was not a second confirming visit.

NR - No detections. No visits had an owl response = "Y" (Yes) or MSNO placeholder applies.

U - Unknown - none of the preceding conditions were met.

FINAL_NEST_REPRO - assigns one of the overall final reproduction status values for the IDNO site for the summary year.

I - Summary Nest Status='I'; Repro Success='U'; no Visit NS='O'. Assigned when the calculated summary nesting status value is "I" and the summary reproduction success status value is "U" and there was at least one visit recorded with a nesting status of "O."

O - Summary Repro Success='U', Visit Nest Stat='O'. Assigned when the calculated summary reproduction success value is "U" and there was at least one visit recorded with a nesting status of "O."

F - Summary Repro Success='F'. Assigned when the calculated summary reproduction success value is "F."

Z - Summary Repro Success='Z'. Assigned when the calculated summary reproduction success value is "Z."

V - Summary Repro Success='V'. Assigned when the calculated summary reproduction success value is "V."

X - None of above, visit record with Nest Stat='X'. Assigned when the calculated summary reproduction success value is not any of the values: "I", "O", "F", or "Z" and there was at least one visit recorded with a nesting status of "X." Note: X status is a historic code and does not apply to new records.

N - Summary Nest Status='N'. Assigned when the calculated summary nesting status value is "N."

NU - Partial non-nesting. Assigned when the calculated summary nesting status value is "NU."

IU - Partial nesting confirmed. Assigned when the calculated summary nesting status value is "IU."

ZU - Partial no-young after initial incubation. Assigned when the calculated summary reproduction success value is "ZU."

VU - Partial no-young, produced results. Assigned when the calculated summary reproduction success value is "VU."

NR - No Detections. Assigned when the calculated summary reproduction success status value is "NR."

U - None of the above. None of the preceding conditions were met.

OWL_SPCS - the owl species being summarized for the site. It is derived from the site and assumed to be "STOC" (Northern spotted owl).

BAND_MALE_STTS_1 - assigns the summary banded status for the first male owl observed at the site. The owl observation unique identifier (OWL_OBS_GUID) is recorded in the BAND_MALE_ID_1 field.

B - Banded during summary year. When an owl observation record has an owl sex of "M", and that owl observation record has an observation type of "BB."

O - Owl confirmed at another site during summary year. When an owl observation record has an owl sex of "M", and that owl observation record has an observation type of "VO." The type indicates the repeat observation of the owl.

C - Banded previous season, confirmed during summary year. When an owl observation record has an owl sex of "M", and that owl observation record has band information that matched an owl band observed in the previous year at the same IDNO site. This crosscheck excludes partial observation type = "VI."

M - Banded on another site previous season(s), moved to this site. When an owl observation record has an owl sex of "M", and that owl observation record has owl band information that does not match an owl band observed in the previous year but does have a matching owl band observation in the previous year at another IDNO site. This crosscheck excludes partial observation type = "VI."

N - Visual determines bird is not banded. When an owl observation record has an owl sex of "M", and that owl observation record has an observation type of "UB."

U - None of the above, but bird detected. None of the preceding conditions were met for an identified male owl observation record where the observation type is either "UN" or "AN."

BAND_MALE_STTS_2 - assigns the summary banded status for the second male owl observed at the site. Uses the same value assignments as the first identified male. The owl observation unique identifier (OWL_OBS_GUID) is recorded in the BAND_MALE_ID_2 field.

BAND_MALE_STTS_3 - assigns the summary banded status for the third male owl observed at the site. Uses the same value assignments as the first identified male. The owl observation unique identifier (OWL_OBS_GUID) is recorded in the BAND_MALE_ID_3 field.

BAND_FEM_STTS_1 - assigns the summary banded status for the first female owl observed at the site. The owl observation unique identifier (OWL_OBS_GUID) is recorded in the BAND_FEM_ID_1 field.

B - Banded during summary year. When an owl observation record has an owl sex of "F", and that owl observation record has an observation type of "BB."

O - Owl confirmed at another site during summary year. When an owl observation record has an owl sex of "F", and that owl observation record has an observation type of "VO." The type indicates the repeat observation of the owl.

C - Banded previous season, confirmed during summary year. When an owl observation record has an owl sex of "F", and that owl observation record has band information that matched an owl band observed in the previous year at the same IDNO site. This crosscheck excludes partial observation type = "VI."

M - Banded on another site previous season(s), moved to this site. When an owl observation record has an owl sex of "F", and that owl observation record has owl band information that does not match an owl band observed in the previous year but does have a matching owl band observation in the previous year at another IDNO site. This crosscheck excludes partial observation type = "VI."

N - Visual determines bird is not banded. When an owl observation record has an owl sex of "F", and that owl observation record has an observation type of "UB."

U - None of the above, but bird detected. None of the preceding conditions were met for an identified female owl observation record where the observation type is either "UN" or "AN."

BAND_ FEM _STTS_2 - assigns the summary banded status for the second female owl observed at the site. Uses the same value assignments as the first identified female. The owl observation unique identifier (OWL_OBS_GUID) is recorded in the BAND_FEM_ID_2 field.

BAND_ FEM _STTS_3 - assigns the summary banded status for the third female owl observed at the site. Uses the same value assignments as the first identified female. The owl observation unique identifier (OWL_OBS_GUID) is recorded in the BAND_FEM_ID_3 field.

BAND_UNK_STTS_1 - assigns the summary banded status for the first adult owl of unknown sex observed at the site. The owl observation unique identifier (OWL_OBS_GUID) is recorded in the BAND_UNK_ID_1 field.

B - Banded during summary year. When an owl observation record has an owl sex of "U" and age class in "A", "S", or "D", and that owl observation record has an observation type of "BB."

O - Owl confirmed at another site during summary year. When an owl observation record has an owl sex of "U" and age class in "A", "S", or "D", and that owl observation record has an observation type of "VO." The type indicates the repeat observation of the owl.

C - Banded previous season, confirmed during summary year. When an owl observation record has an owl sex of "U" and age class in "A", "S", or "D", and that owl observation record has band information that matched an owl band observed in the previous year at the same IDNO site. This crosscheck excludes partial observation type = "VI."

M - Banded on another site previous season(s), moved to this site. When an owl observation record has an owl sex of "U" and age class in "A", "S", or "D", and that owl observation record has owl band information that does not match an owl band observed in the previous year but does have a matching owl band observation in the previous year at another IDNO site. This crosscheck excludes partial observation type = "VI."

N - Visual determines bird is not banded. When an owl observation record has an owl sex of "U" and age class in "A", "S", or "D", and that owl observation record has an observation type of "UB."

U - None of the above, but bird detected. None of the preceding conditions were met for an identified unknown sex owl observation record where the owl sex of "U" and age class in "A", "S", or "D" and observation type is either "UN" or "AN."

BAND_ UNK _STTS_2 - assigns the summary banded status for the second unknown sex owl observed at the site. Uses the same value assignments as the first identified unknown sex. The owl observation unique identifier (OWL_OBS_GUID) is recorded in the BAND_UNK_ID_2 field.

BAND_ UNK _STTS_3 - assigns the summary banded status for the third unknown sex owl observed at the site. Uses the same value assignments as the first identified unknown sex. The owl observation unique identifier (OWL_OBS_GUID) is recorded in the BAND_UNK_ID_3 field.

ACTVTY_CTR_RTNLE - assigns one of the overall activity center rationale codes for the IDNO site for the summary year. Values are assigned using the following hierarchical order:

N - Nest location. Assigned when the summary nest tree location value is "L" or "A."

F - Fledglings without a nest tree. Assigned when the summary nest tree location value is "C", "D", or "E."

P - Best pair location. Assigned when the summary pair status value is "A" or "P".

S - Best single location (no pair detected). Assigned when the summary pair status value is "S" or "B."

U - Unknown rationale with detections, defaulted to IDNO coordinate. Assigned when the summary pair status value is "X."

ACTVTY_CTR_UTMX - Auto loads the Activity Center X-UTM from the location with the most Observations (by count) recorded for the IDNO, during the summary year. Stewards must verify.

ACTVTY_CTR_UTMY - Auto loads the Activity Center Y-UTM from the location with the most Observations (by count) recorded for the IDNO, during the summary year. Stewards must verify.

RCRD_STTS - this field is calculated with the default value of "No edits." Stewards must verify calculated results and correct those as needed, and then change the record status value to either "Yes, Edits" (still reviewing) or "Completed" (done reviewing) to protect a summary record from further changes by the automated calculation process.