VEGISS

Vegetation Information System Saskatchewan

User Manual

Ver.2.1.0

Saskatchewan
Prairie Conservation
Action Plan

Saskatchewan Research Council
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Version History

Version	Date	Author	Summary
0.9	Jan 14, 2011	Jeff Lettvenuk (SRC)	Beta release for initial review
1.0	Feb 28, 2011	Jeff Lettvenuk (SRC)	Initial rollout release
1.1	Mar 28, 2011	Jeff Lettvenuk (SRC)	Parks Forestry Update
2.0.0	Jan 04, 2012	J. Lettvenuk, J. Thorpe (SRC)	Version 2 enhancements and full how-to instruction
2.0.8	Jan 05, 2012	J. Lettvenuk (SRC)	Update installation instructions
2.1.0	Apr 09, 2013	J. Lettvenuk (SRC)	Lentic Long form tables, dictionary update, coded value listing, updated ER diagram

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1 Introduction

The Vegetation Information System Saskatchewan (VegISS) is a database application used to collect vegetation survey data within the province of Saskatchewan. The VegISS project was initiated in 2009 to create a common platform for storing data from rangeland and riparian health surveys. In 2011 it was expanded to include data from forest surveys, and can now be regarded as a general platform for most types of vegetation data collected in the province. The project was led by a steering committee consisting of representatives from Saskatchewan Watershed Authority, Saskatchewan Ministry of Environment, Saskatchewan Ministry of Agriculture, Saskatchewan Ministry of Tourism, Parks, Culture and Sport, Saskatchewan Research Council, Agriculture and Agri-Food Canada, Environment Canada, Nature Conservancy of Canada, and Ducks Unlimited Canada.

VegISS is a stand-alone Windows application developed using .NET and was initially built to store information in several different database formats including Access, SQL Server and Oracle. The current release of VegISS has been tested to work with Access, and tests with SQL Server and Oracle are not yet complete. Initial test data can be entered using the default Access database and then imported into SQL Server/Oracle once this functionality is operational.

VegISS is still a product in development and accordingly, bugs will be found. Interim releases will be issued as they become available and every effort will be made to ensure that any updates will not corrupt data already entered using an earlier release.

2 Conceptual Background

In Saskatchewan, vegetation surveys are done by a variety of agencies and researchers. Data have usually been stored internally by the agencies involved, with no consistency in platform or format. This has impeded efforts to combine data from different agencies to meet the broader information needs of the province. Sharing data among agencies is mutually beneficial, because it gives larger datasets than any one agency can collect. Pooled data can be used for many purposes, e.g.:

- developing rangeland assessment methods
- examining vegetation characteristics within a region of interest
- showing provincial trends in ecological health
- conservation planning
- developing reclamation standards

The challenge for the database design was to accommodate the variety of data types that are commonly collected in vegetation surveys. Some surveys aim only at measurements of species abundances, while others apply a particular range assessment protocol. Some surveys consist of general estimates over a plot area, while others use sub-sampling to calculate averages. Some surveys are targeted at all of the vegetation, while others are targeted at particular vegetation layers. Species abundance measures (cover, percent biomass, density, etc.) and sampling methods (visual estimates, point-frame, line-intercept, etc.) vary. In some surveys, all plants are identified, while in others only the common species are listed. The intent of the design was to deal with all of these variations in a consistent way.

The core of the database is a series of tables which store basic vegetation survey data in a hierarchical fashion. The relationships among the tables are shown in the Database Design (Appendix I) while details about the tables and the fields within them are given in the Data Model (Appendix II). The hierarchy for species composition data is as follows:

PLOTS
→ SURVEYS
→ VEGETATION SAMPLING TASKS
→ SAMPLES
→ SPECIES WITH ABUNDANCE VALUES

The PLOTS table stores data on the permanent attributes of vegetation plots, such as identifiers, land use, and soil and landscape properties. Related to PLOTS are tables for location data, plot dimension measurements, and soil profile descriptions.

The usual concept of a vegetation plot is a two-dimensional area of some specific size and shape (e.g. a 20 m by 20 m square). In VegISS the concept is broadened to include transects (i.e. one-dimensional plots), variable-radius plots (as in the prism method of estimating tree basal area), and irregular polygons (as in riparian health assessments). The unifying feature is that a plot is a stand-alone entity intended to represent a broader area of land.

VegISS distinguishes between information collected over the whole plot (plot-level data), and information collected in samples within the plot (sample-level data). These samples could be smaller subplots (also referred to as quadrats, frames, etc.), or they could be placements of a point-frame (as in the point sampling method) or placements of a line (as in the line intercept method). The defining feature is that a sample is intended to be averaged with other samples to give an estimate for the plot.

Here are some field examples which may help to clarify the distinction between plots and samples:

- In a “Braun-Blanquet” type of vegetation survey, relevés of a determined size (e.g. 5 m by 5 m) are placed in areas considered representative of particular plant communities. The surveyor

examines the whole relevé, lists all the plant species, and assigns a cover-abundance score to each. In VegISS, the relevé would be treated as a plot, and the species and cover-abundance scores would be treated as plot-level data.

- In a forestry survey, permanent sample plots (PSPs) of a defined size (e.g. 20 m by 20 m) are located in representative areas of particular stand types. All the trees in the PSP are tallied and the species and diameters recorded. The ground vegetation may be sampled by randomly placing 10 sample frames (50 cm by 50 cm) within the plot. In each frame, the cover of each species is recorded. In VegISS, the PSP would be treated as a plot. The tree data would be treated as plot-level data, while the ground vegetation data recorded in the small frames would be treated as sample-level data.
- In a typical range condition survey, a transect (e.g. 200 m) is laid out across an area considered representative of a particular range site. Ten small sample frames (20 cm by 50 cm) are located at equal intervals along the transect. In each frame, the percent biomass of each species is estimated. These values are averaged to obtain percentages for the whole transect, which are used in calculating range condition. In VegISS, the transect is treated as a plot, while the percentages recorded in the small frames are treated as sample-level data.
- In a riparian health assessment, a stream reach between two meanders is selected to represent a larger length of the stream. The surveyor walks over the riparian area within this reach, and assigns scores for the health assessment. In VegISS, the irregular polygon defined by this reach is treated as a plot, and the scores are treated as plot-level data.

There may be situations in which this distinction is not obvious (for example, units which have the general traits of stand-alone plots, but which are sometimes averaged to characterize some larger land feature). In such situations, the user will have to decide whether it is more useful to consider these plots or samples in the context of the VegISS data structure. Many of the fields that are used to characterize a plot (e.g. structural type, land use, topography, soil properties) are only available at the plot level, so if it is important to record this information for the individual unit, then it should be treated as a plot.

The SURVEYS table stores data about surveys conducted within a given plot. Whereas a plot is a physical location, a survey is an event. While some plots may be surveyed only once, others may receive repeated surveys. Fields in SURVEYS relate to date, crew names, survey purpose, and health assessment method applied.

The VEGSAMPLINGTASKS table stores data about the separate vegetation sampling tasks conducted within a given survey. Different tasks typically target different vegetation layers, and may have different sampling methods or abundance measurements. For example, the tasks in a survey could include:

- Task 1 – estimate percent canopy cover of trees over the whole plot area.
- Task 2 – in 10 large quadrats, estimate percent foliar cover of each shrub species
- Task 3 – in 20 small quadrats, estimate percent biomass of each herb species
- Task 4 – in the same 20 small quadrats, estimate percent litter cover, percent manure cover, and percent bare soil

Fields in VEGSAMPLINGTASKS relate to vegetation layers targeted and sampling methods used. If the dimensions of samples (e.g. quadrat sizes) used by particular tasks are recorded, they are stored in SAMPLEDIMENSIONS.

Data recorded within a vegetation sampling task are stored differently depending on whether they are “plot-level” (i.e. apply to the whole plot) or “sample-level” (i.e. apply to samples within the plot). Plot-level data can come either from plot estimates (for example, an estimate of tree cover over the whole plot), or from estimates originally made by quadrat sampling, but for which only the plot averages are available.

The PLOTSTRUCTURE table stores plot-level data about vegetation structure collected within a given vegetation sampling task, with fields including layer name (e.g. trees, shrubs, herbs, moss, litter, bare soil), and percent cover or biomass of the layer. The PLOTSPECIES table stores plot-level data about species composition, with fields including species name and percentage or other abundance measure.

The PLOTTREETALLY table stores plot-level tallies of trees, with fields including species, diameter, height, and live/dead status. The PLOTTREEAGE table stores tree ages collected in a plot.

The VEGSAMPLES table stores data about replicate samples measured within a given vegetation sampling task. These may be sample quadrats, placements of a point-frame, or placements of a line-intercept sample. If locations of samples were recorded, these can be stored in SAMPLEUTM. The SAMPLESTRUCTURE, SAMPLESPECIES, and SAMPLETREETALLY tables store sample-level data on vegetation structure, species composition, and tree-tally.

In addition to these general vegetation data, surveys may include application of one of the standard range or riparian health assessment methods. A separate table is provided for each of the published methods, including native grassland, native forest (indicator and quantitative methods), tame pasture (Alberta method), lentic riparian, and lotic riparian. Each table includes fields for the various questions in the health assessment, as well as comments and supplementary data. If vegetation structure or species composition data are collected during a health assessment, they are recorded in the general vegetation tables (PLOTSTRUCTURE, PLOT SPECIES, SAMPLESTRUCTURE, SAMPLESPECIES).

One of the central functions of VegISS is the naming of plant species. Species names are stored in PLOTSPECIES, SAMPLESPECIES, and in sub-tables for invasive species under the health assessment methods. Inconsistency or ambiguity in naming are common sources of confusion in vegetation data. In order to ensure data integrity, a standardized list of plant names must be used. VegISS uses the names given in the latest authoritative treatment of the flora of Saskatchewan:

> V.L. Harms (2006): *Annotated catalogue of Saskatchewan vascular plants*. Unpublished revision of : V.L. Harms (2003). Checklist of the vascular plants of Saskatchewan and the provincially and nationally rare native plants in Saskatchewan. University Extension Press, University of Saskatchewan. 328 pp.

In addition to the names given in this publication, the plant list in VegISS includes names for more generalized groupings. For example, Harms lists "*Elymus trachycaulus* ssp*. trachycaulus* " and "*Elymus trachycaulus* ssp*. subsecundus* ", while VegISS also lists the more generalized taxa "*Elymus trachycaulus*" and "*Elymus* spp.". It was necessary to provide for varying levels of taxonomic generalization to accommodate the diversity of vegetation data that will be stored in VegISS. The list also includes a few more general groupings: "forb increasers", "woody increasers", "unknown graminoids", and "unknown forbs". The first two frequently appear in range condition data, while the last two (or variations on them) appear in all kinds of vegetation data because of difficulties in field identification. Finally, the VegISS list includes names of Saskatchewan bryophytes and lichens, provided by the Saskatchewan Conservation Data Centre.

Species are stored in VegISS as acronyms. Acronyms were developed following the approach of an earlier publication (W. Strong [1989]: *A standardized species acronym list for plants found primarily in Canada*). Each acronym consists of four characters for the genus, followed by a space, followed by three characters for the species, followed (if applicable) by a space and three characters for the variety or subspecies. A code of SPP is used where identification is only to the genus level. For example:

- *Elymus trachycaulus* = ELYM TRA
- *Elymus trachycaulus* ssp*. trachycaulus* = ELYM TRA TRA
- *Elymus* spp. = ELYM SPP

The genus code was initially generated from the first four letters of the genus name. In cases where this resulted in the same code for different genera, one of the codes was altered to avoid ambiguity. For example:

- *Agropyron* = AGRO
- *Agrostemma* = AGRS
- *Agrostis* = AGRT

A few genus names have only three letters, so an asterisk was added to make a four-letter code (e.g. POA*). Species codes were developed in the same way, initially from the first three letters of the species name, followed by revision in cases of ambiguity in species codes within a given genus.

Field data often include names other than the ones used by VegISS. These may be synonymous scientific names, synonymous acronyms, or common names. VegISS will not allow these names to be entered – plant names are entered by selecting from a drop-down list, which shows the standard acronym and scientific name (the common name is also displayed after the species is selected). Therefore, users must convert the other names appearing in their data to the names used by VegISS. It is strongly recommended that this be done as a data preparation step, prior to entering data into VegISS. Lookup tables for this purpose can be obtained from Saskatchewan Research Council.

3 Installation/Setup

3.1 Software Installation

To install VegISS on a personal computer, the user must have local administrative rights on the computer. The VegISS setup utility will install the following components:

- Crystal Reports viewer components (to support display of reports)
- Windows Power tools components to support other VegISS components
- VegISS installation

Follow these steps to install VegISS

Installation by CD/DVD

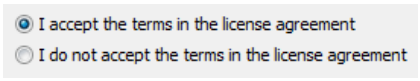
- Insert media into drive
  - If autoplay opens, select browse folder.
  - If autoplay does not open, navigate to Computer -> CD/DVD Drive Location and open.

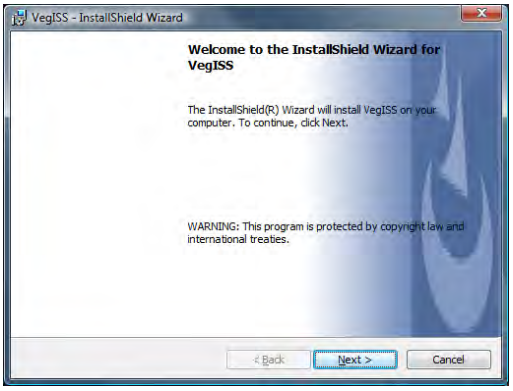
Install by FTP

- Download the VegISS installation software from SRC's FTP site
  - ftp://ftp.src.sk.ca
  - Username: ***srcftp***
  - Password: ***3B7QPW9***
  - Navigate to folder ***srcftp/VegISS*** (may automatically locate you to srcftp folder but may not)
  - Download the zip file ***VegISSInstaller.zip***
- Unzip installer onto your PC. The zip file will create a folder called ***Installer***

For Both

- Using Windows Explorer, navigate to the directory where the installation software is stored and double click on ***VegISS_Setup.exe***
- When the VegISS installer starts, a setup wizard will be displayed. Click ***Next*** to continue.
- Review the license agreement (content still under review) and click the button next to ***I accept the terms of the license agreement*** (cannot install without completing this step). Click ***Next*** to continue





- Enter a ***User Name*** and ***Organziation*** then click ***Next***
- A default installation folder will be displayed next. Use the defaults. Also, make sure the option to install VegISS for everyone. Click ***Next***.
- A Confirm Installation dialog will then appear. Click ***Next*** to begin the installation.
- Once complete, the installer will notify you and click ***Finish*** to complete the installation.
- A shortcut to VegISS can be found using the Start menu. Click ***Start*** -> ***All Programs*** -> ***VegISS*** -> ***VegISS***

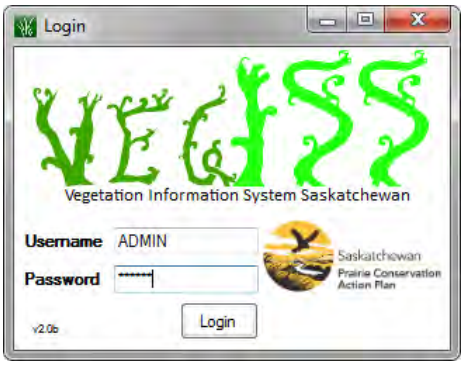
*NOTE: By default, the installation does not create a desktop shortcut. If you would like a desktop shortcut for VegISS, navigate through the Start Menu as listed above but right-mouse-click on the VegISS program and select **Send to** -> **Desktop (create shortcut)**. A shortcut to VegISS will appear on the desktop.*

3.2 First Time Setup

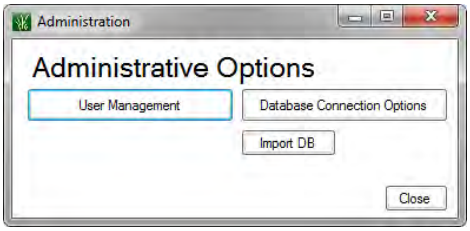
The first time VegISS is used, the application must be directed to where the database is located. By default, VegISS will connect to an empty Access database stored in the software installation directory (i.e. c:\program files\src\VegISS for 32 bit OS and c:\program files (x86)\src\VegISS for 64 bit OS computers). If you wish to relocate the database, it is suggested to make a copy of the VegISS.mdb stored in this location and place it on a network drive or other location as required. Do not delete the default database in the installation directory.

Note: If the database needs to be maintained within SQL Server or Oracle, this functionality is not ready for testing and has been disabled at the moment. Please use the Access DB for initial testing. You will be able to export content to the third party database once this functionality is fully tested.

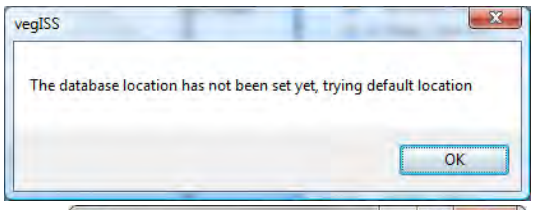
To perform the first time setup, you must log into VegISS using the built-in administrator login ***ADMIN***.



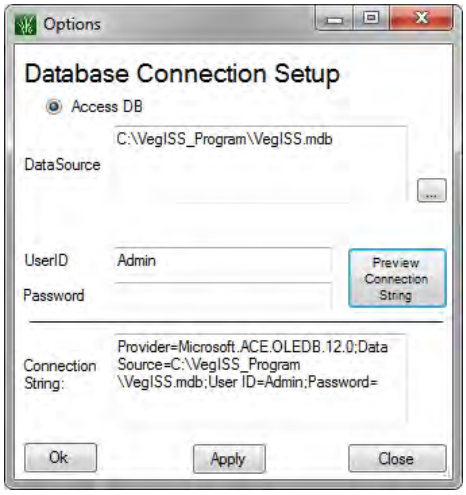
- Start VegISS (double click desktop icon). VegISS login screen will appear
- Type the user name ***ADMIN*** (all user names are automatically displayed as upper case regardless of what is entered at the keyboard
- The default password for ADMIN is ***admin1*** which is case sensitive. Press enter or click Login to log into VegISS. Once the default database has been set up you will be able to change the ADMIN password to something unique (if you wish).
- The administrator has a different menu than a traditional user. An administrator cannot view, edit or create plots. There are 3 options available to the administrator:
  - Manage users
  - Configure database connections
  - Import a database



- The first step is to set up the database. Click the button ***Database Connection Options***

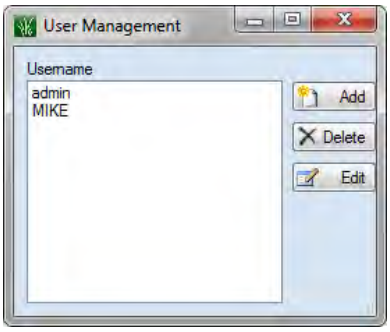


- When the database location is not yet set, VegISS will warn you and connect to the default location as a starting point. You will be able to change this setting though. Click ***OK*** to continue.
- The Database Connection Setup dialog will appear. VegISS only supports Access databases presently and thus shows a single radio button labeled ***Access DB***. When other database formats are supported, additional options will appear (SQL Server and Oracle support coming soon).
- The default database path will be displayed. Use this or click the ... Browse button to navigate to another location where the VegISS.mdb database is located.
- Click the ***Apply*** button at the bottom of the form. This will save the database settings. The Connection string window will be updated to show the current connection settings used by VegISS.
- Click the ***X*** in the top right corner to close the Database Connection Setup dialog.



NOTE: Clicking OK will apply changes and close the database connection setup dialog.

3.2.1 Creating Users



The next step is to create one or more users. Each user will be connected to a specific organization and login credentials will be included.

- From the Administrative Options dialog, click ***User Management***. The User Management form will display.
- Click the ***Add*** button to add a user
- The User dialog will appear. Provide an appropriate user name. You will also need to enter a password (twice to confirm accuracy of the password and the value will not be displayed as it is entered.
- Select the appropriate agency for the user. A user can only create/edit data associated with the agency they are tagged to.
- Make sure to fill out all fields. The form will not save if information is omitted.
- Click the save icon to complete the user creation. A popup will appear confirming the user has been created.
- Click the ***X*** to close the form.
- Repeat process to create additional users.

3.2.2 Edit User Profile

If you need to change password (such as the ADMIN user, click the ***Edit*** button to change the password. Save and close the same way to create a user.

3.2.3 General Information

The User management dialog will display all users defined and indicate the organization they belong to as well.

- Click **X** to close User Management.
- To access the VegISS application, activate the login screen and enter the new credentials. The administration components will shut down and the standard VegISS environment will display.

4 VegISS Database Concepts

4.1 Supported Database Platforms

At version 2, VegISS only supports MS Access relational databases for storing data. VegISS was designed to support multiple database platforms but a decision was made to firm up functionality based on Access before migrating to other database platforms.

In future releases, VegISS will support Oracle and SQL Server database platforms as well as Access.

NOTE: The current MS-Access database used in VegISS is based on the Access 2003 .MDB format.

4.2 Guaranteed Unique IDs (GUIDS)

The original database design for VegISS used a numeric ID system based on a sequential generator for each table defined in the database. Each table ID had an agency prefix, table prefix and sequence number generated by the application and used these values to maintain database integrity. The problem with this system was merging multiple datasets based on field/contract labour.

For example, a typical PLOT number for the Saskatchewan Watershed Authority might look like:

SWA-PLO1234567

A Survey ID might be represented as SWA-SID7654321, etc.

Since these ID numbers were sequential in nature, problems occur if multiple users collect data and want to incorporate them into the main database. Did SWA-SID7654321 already get created by another user? Many checks and balances had to be in place to ensure this could not happen.

An administrative utility was included with VegISS Version 1 to provide a way of setting database offsets for each of the main data tables. While this tool did work, it required diligence to ensure it was used correctly. Another solution was needed.

VegISS Version 2 employs Guaranteed Unique IDs or GUIDS for ensuring database integrity. A GUID consists of an auto-generated 36 character number that is always unique no matter what computer generates it. This ensures that data collected from a field computer, or through the use of contract offsite labour, can enter data into a satellite copy of VegISS and be able to incorporate that content into a master database without fear of using duplicate ID values (the backbone of a relational database).

As a result of using GUIDS, the need for providing utilities to allow an administrator to offset sequential ID numbers to ensure uniqueness is no longer required. The ID offset tool provided in VegISS Version 1 is no longer included with VegISS Version 2.

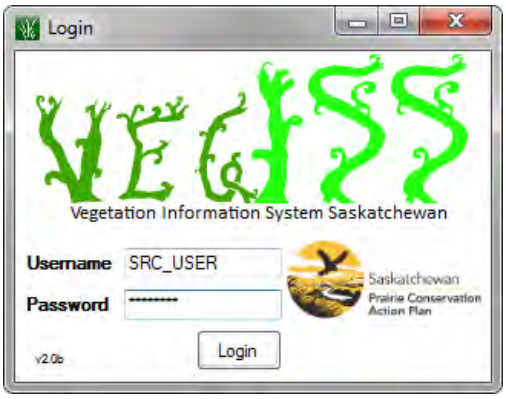
Data created with Version 1 are still supported in Version 2. Version 1 ID values can still be retained in Version 2 but new entries will be created using the new GUID ID system. All ID values appear on all forms in the window header for reference purposes. The number may be long and complex but it ensures absolute integrity in the VegISS database.

5 VegISS Functionality Overview

5.1 Starting VegISS

To start VegISS

- Double click on the VegISS icon on the desktop
- The VegISS login screen will appear. Enter your login credentials and press ***Enter*** on the keyboard or click ***Login***.
- The VegISS Navigator screen will appear.

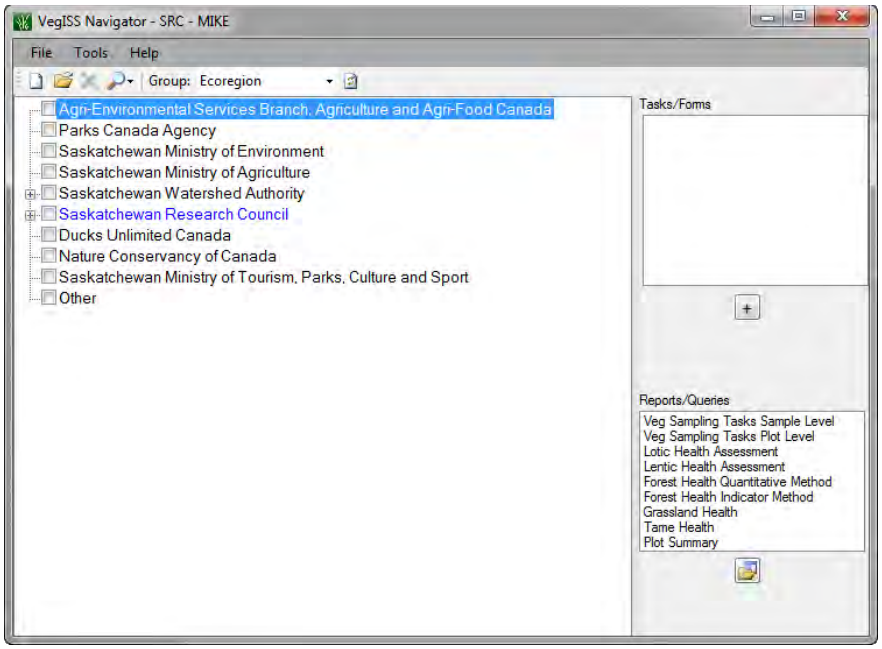


5.2 Navigator Overview

When a user logs into VegISS, the organization associated with the user account is displayed in blue header on the navigator window. This confirms the user name that is logged into the system.

The Navigator is made up of 3 main parts and associated tools.

- Tree view that displays all plots, surveys, tasks currently in the database
- Tasks/Forms lists the input forms and tasks that can be entered
- Reports/Queries that display relevant reports available
- File menu system to access system features
- A VegISS toolbar to perform common tasks.



5.2.1 Tree View

The tree view is the main navigational aid in VegISS that allows the user to traverse through the plot database to enter, edit, review and report survey activities associated with plots. The tree view is

organized by organization. All partner organizations are listed within the tree view. However, the user can only create/edit data associated with their specific organization. As such, the user's home organization is highlighted in blue within the tree view. In the example at right, "Saskatchewan Research Council" is highlighted as the user logged in is an SRC employee.

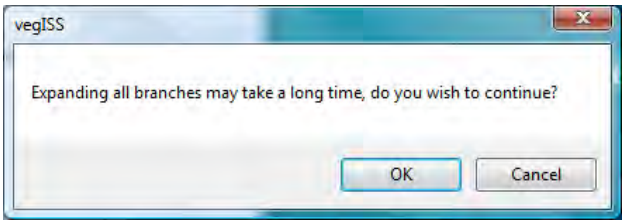
From the tree view, the user can create, edit, select and report on desired plots, forms and tasks.

5.2.1.1 Expand/Collapse Tree View

The tree view can be expanded using the **+** indicator next to the organization. The "+" indicator also signifies that data exists within that tree segment. Click on the **+** sign to expand a tree segment. Conversely, to collapse a displayed tree segment, click the **-** sign. Pressing the **+** or **–** keys on the keyboard will do the same thing as pressing the +/- indicators (keyboard will expand/collapse whatever item is hightlighted in the tree view).

Other options are available to expand/collapse an entire segment or the entire tree. If you wish to expand or collapse a segment, right mouse click on the associated header and select ***Expand {segment name}*** or ***Collapse {segment name}***.

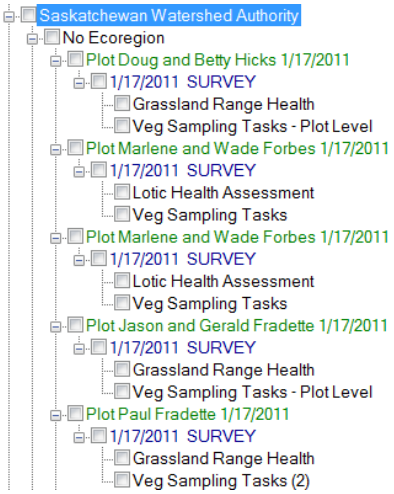
A third option to expand/collapse the tree view is available through the ***File***->***Tools***-> ***Expand/Collapse*** menu. In this tool, the user can expand/collapse the entire database. It should be noted that expanding/collapsing a very large database may take time and a warning message will be displayed to confirm this function. All data from all organizations will be expanded or collapsed.



5.2.1.2 Changing Tree Organization

The tree view has a default tier structure that is based on

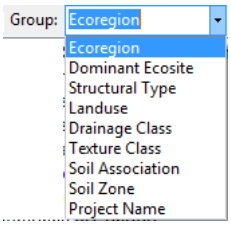
Organization
→Group (Default to plot Ecoregion)
→Plots
→Surveys
→Health Assessment Forms
→Vegetation Sampling Tasks



While most of the tree structure is static, the user can reorganize the grouping of plots based on a number of pre-defined attributes. By default, the tree view organizes plots within each organization by ecoregion.

The user can change the grouping of plots using the Group dropdown located on the VegISS toolbar. Simply select the desired plot grouping and click the refresh button to redisplay the tree view. Please note that re-displaying the tree view causes all tree segments to collapse and must be expanded once again.

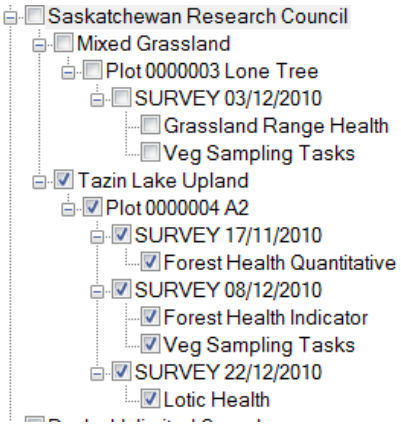
The following grouping organizations are currently available in VegISS:



- Ecoregion (Default)
- Dominant Ecosite
- Structural Type
- Landuse
- Drainage Class
- Texture Class
- Soil Association
- Soil Zone
- Project Name

5.2.1.3 Selecting/Deselecting Items

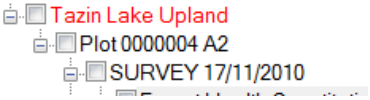
Items in the tree view can be selected for reporting, exporting and deletion purposes. Next to each segment of the tree is a checkbox that can be checked on/off. The user simply checks the desired plots, forms, etc. to perform reporting tasks. If a segment is selected, all sub-components of that segment will also be selected.



To clear all selected items, the user can either uncheck selected features or use the ***File->Tools->Select/Deselect->Deselected All*** option. There is also a similar function to select all segments in the tree.

5.2.1.4 Searching the Tree

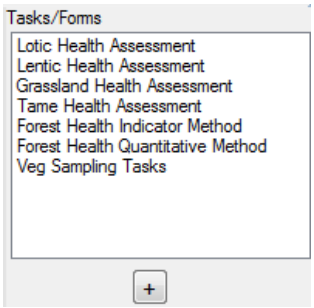
A simple search utility has been included in the VegISS toolbar to search for content found within the tree view. This could be part of the group name, the plot number or any other information that appears within the tree view. When the tree is searched, all matches are highlighted in red.



To search the tree, click the magnifier icon on the VegISS toolbar. A small input dialog will appear to allow the user to enter a string to search for. Enter an appropriate search word and click the ***Search*** button. The tree view will expand segments to show that match the search criteria. These search items will be highlighted in red.

5.2.2 Tasks/Forms

Plots can have any number of surveys associated with them. Each survey is made up of vegetation sampling tasks and/or one of the health assessment forms. These include:



- Lotic Health Assessment (form)
- Lentic Health Assessment (form)
- Grassland Health Assessment field worksheet (form)
- Forest Range Health Assessment – Indicator method (form)
- Forest Range Health Assessment – Quantitative method (form)
- Tame Health Assessment (form)

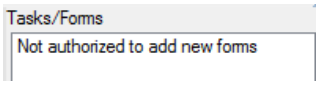
- Vegetation Sampling Tasks

The Tasks/Forms list is dynamic and only displays appropriate information. This ensures that a plot or survey is selected before appropriate choices are given. If no plots are selected then this list will be empty. Select a plot and the complete list appears. Select an existing survey and Vegetation Sampling Tasks appears in the list.

A given survey is created when either Vegetation Sampling Tasks or one of the health assessment forms is created. Only one health assessment form can be associated with a given survey.

Health assessment forms appear in the tree view under the survey date by name. Vegetation Sampling Tasks for a given survey appear as a single entry in the tree view even if multiple tasks are collected (as they are accessed through a single interface).

NOTE: VegISS security prevents users from creating/editing plot/survey information for agencies other than the one defined as part of their account setup. When this occurs, the Task/Form list will display "Not authorized to add new forms".



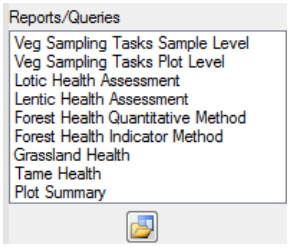
5.2.2.1 Creating a New Survey

Surveys, Vegetation Sampling Tasks, and health assessment forms are all created from the same location on the Navigator. After selecting a Plot or Survey, tasks and forms will appear in the Tasks/Forms window on the right hand side. Select one of these that you wish to create, press + and a new survey + task/form will be created. Alternatively, double-clicking the desired report can also be used to create new reports.

For further information refer to 7.2.1 Creating New Surveys/Tasks/Forms

5.2.3 Reports/Queries

Surveys and tasks have formatted reports that can be generated to provide hard copy or electronic output. These reports are available through the Reports/Queries section. VegISS has several reports available



- Vegetation Sampling Tasks (Sample level) – percentage data only
- Vegetation Sampling Tasks (Plot level) – all data types
- Riparian Health Assessment - Lotic Health
- Riparian Health Assessment - Lentic Health
- Forest Range Health Quantitative Method
- Forest Range Heath Indicator Method
- Grassland Health Assessment
- Tame Health Assessment
- Plot Summary (lists all surveys and tasks associated with a given plot)

Further reports can be generated in future to meet specific needs.

The Reports/Queries dialog provides two ways to generate reports:

- Check the desired surveys to print within the tree view and then run the report
- When no appropriate selections made in the tree view, a report print dialog will help the user to select appropriate plots/surveys to print

VegISS uses report templates developed with Crystal Reports, a commercial report writer tool. VegISS installs a Crystal Reports viewer so that reports can be displayed. Besides viewing/printing, the Crystal viewer also includes tools to export formatted reports to PDF, Word, Excel and a number of other digital formats.

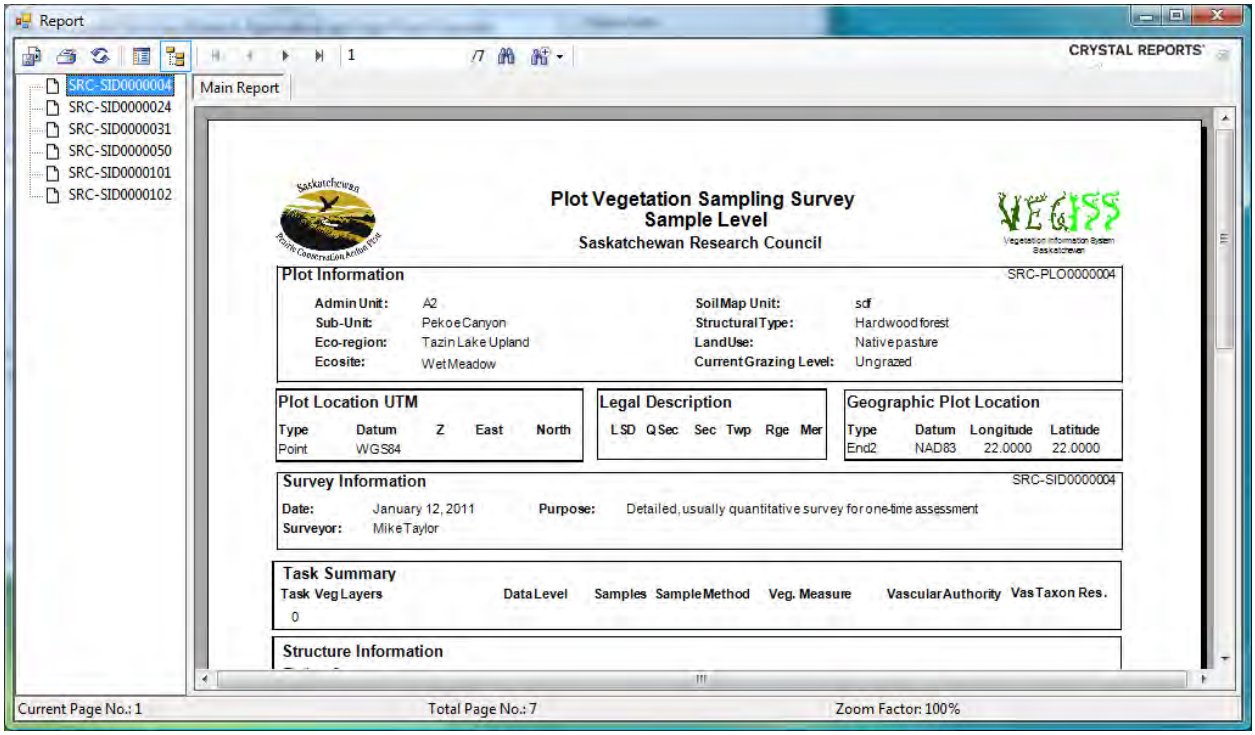
5.2.3.1 Printing a Report

As mentioned earlier, there are 2 ways that reports can be generated in VegISS.

5.2.3.1.1 Tree Checkbox Method

To print a report:

- Select the appropriate form/task from the tree view. Make sure checkboxes are checked ☑ next to each selected plot, survey or form/task. Select as many as desired. If you place a checkbox next to any group(s), all plots/surveys/forms will also be selected. This makes it easy to select entire groups.
- Highlight the report in the Reports/Queries list.
- Press the ***Print*** icon under the report list. You can also double click on the desired report name to start the report without using the print icon.



- A report dialog will open displaying the formatted report for all selected tasks. The user can browse through the report contents page by page or choose to print it.
- If required, the user can export the formatted report to PDF or a number of other formats. Press the ***Export*** icon and follow the prompts to select the desired output format.
- If desired, press the ***Print*** icon to send the report to the printer.
- To close the dialog, click the ***X***

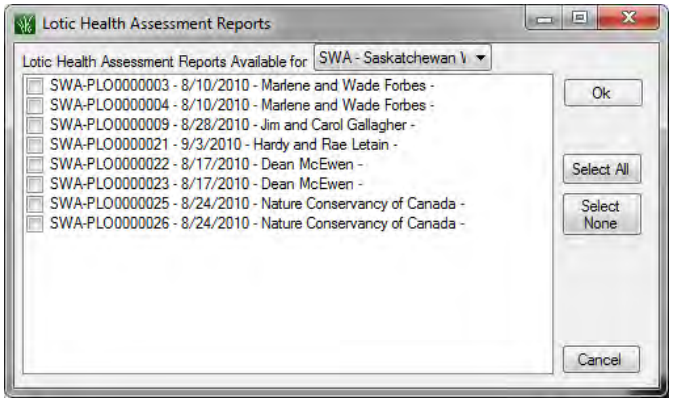
5.2.3.1.2 Report Navigator Method

The report navigator is a tool that helps the user to decide what surveys to print without the need of pre-selecting in the tree view. The report navigator automatically activates when printing of a report is initiated but when no appropriate content is checked in the tree view.

To print a report:

- Highlight the report in the Reports/Queries list.
- Press the print icon under the report list. You can also double click on the desired report name to start the report without using the print icon.
- If nothing in the tree view is selected (checkbox), or if items in the tree view selected do not have any surveys that support the report being run, then a report navigator dialog will open.

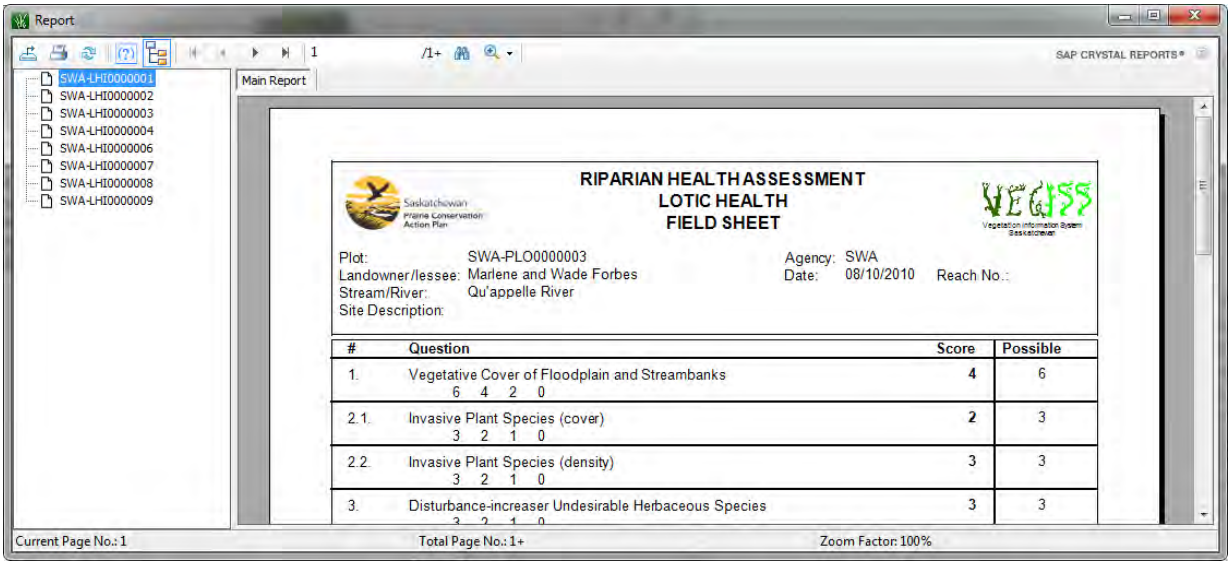
EXAMPLE: *A user checks a survey in the tree view that contains only a Tame Health Assessment. If the user selects a Lotic Health Assessment report to run, the checked survey does not contain an appropriate survey to run the report on. As a result, the user is provided the Report Navigator tool.*



The Report Navigator provides the user with a list of all surveys collected for your agency that can be run with the report that was selected. If the database contains more than one agency of information, a dropdown at the top of the navigator will provide the ability to choose a different agency to run reports on. The dropdown list will only include agencies that have matching survey data.

The Report Navigator provides a checkbox list of all surveys in the database matching the selected report (listed in the header panel of the navigator). The list displays the Plot number/label, survey date and admin unit.

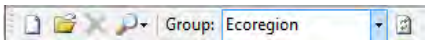
- Use the checkbox next to each survey to select what will be included in the report.
- You may also use the ***Select All*** tool to automatically check all surveys.
- Click ***Select None*** to clear the selection.
- Click ***Ok*** to generate the report for the selected surveys.
- A report dialog will open displaying the formatted report for all selected tasks. The user can browse through the report contents page by page or choose to print it.
- If required, the user can export the formatted report to PDF or a number of other formats. Press the ***Export*** icon and follow the prompts to select the desired output format.
- If desired, press the ***Print*** icon to send the report to the printer.
- To close the dialog, click the ***X***



5.2.4 VegISS Toolbar

The VegISS Toolbar contains a number of standard tools used to perform tasks related to the tree view. The toolbar is made up of the following tools:

- **New Plot** icon is used to create new plots. This button is greyed out when the agency is not highlighted in the tree view. Pressing this button opens the Plot input dialog.
- **Open** icon is used to open the input form associated with the currently highlighted plot, form or task in the tree view. Only one item can be highlighted. The open icon will gray out when appropriate items are not highlighted in the tree view.
- **Delete** icon is used to delete the currently highlighted plots, forms or tasks. It can only delete one item at a time currently. The Delete icon will gray out when appropriate items are not highlighted in the tree view
- **Search** icon is used to find content in the tree view. See section 5.2.1.4 for more information.
- **Group** tool is used to reorganize the tree view by changing the grouping order. See section 5.2.1.2 for more information.

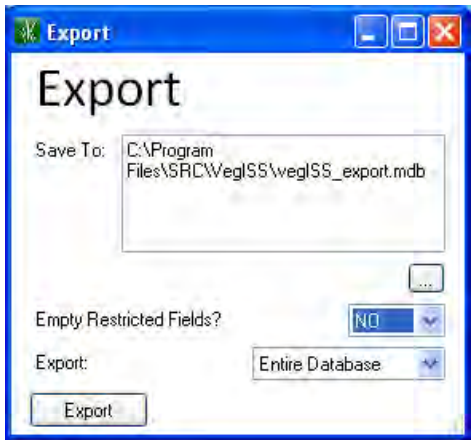


5.2.5 File Menu

The File menu is located at the top of the VegISS Navigator and is made up of the following components

- File
  - Import (Import dataset from contractors or external agencies)
  - Export (Generate an export file of the entire database or selected plots)
  - Logout (Log out and allow login by different user account)
  - Exit (shut down VegISS)
- Edit
  - Nothing defined currently
- Tools
  - Expand/Collapse
    - Expand All (Expand all segments of the tree view)
    - Collapse All (Collapse all segments of the tree view)
  - Select/Deselect
    - Select All (Select all items in tree view)
    - Deselect All (Clear all current selections)
- Help
  - Nothing defined currently

5.2.5.1 Exporting and Importing



- ***Import***: The import tool will let a user import datasets that have previously been created in a separate database. It can be a subset of data or an entire set. *When importing, it should be noted that if there is data conflicts, the newly imported data will take priority over existing data (data can/will be overwritten if there is a conflict)*
- ***Export***: The export tool allows the user to export their data to any location they desire. It will preserve relationships in the database. There are two options
    - Export Entire Database: The entire database will be exported
    - Export Selected: Any data that is checked will be exported.

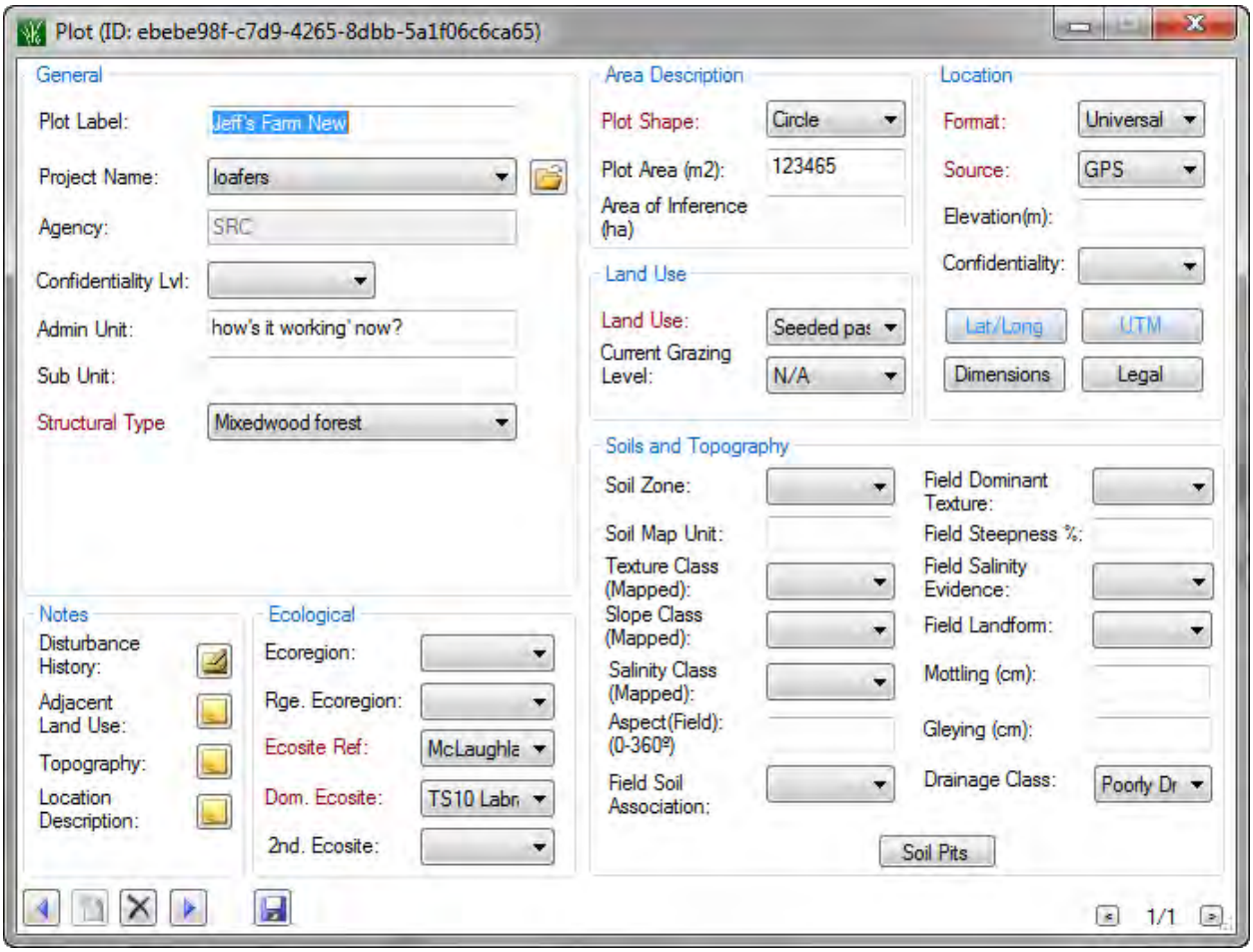
  Furthermore, during export the user has the option to empty restricted fields. This would allow the user to share data without privacy concerns as the information would have been cleared automatically.

6 Plots

6.1 Overview

The Plot is the primary unit and is required before any forms or tasks can be added into VegISS. Plots can be given unique names, organized and displayed in the VegISS Navigator tree view by feature attributes. The user can use the Group tool in the VegISS Navigator to organize the plots for easier access. This section talks about the Plot Entry tool and how to create/edit one in VegISS.

6.2 Input Form



6.3 Creating New Plots

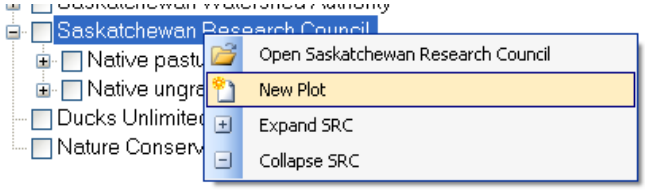
Creating new plots can be done in several fashions:

From the Navigator Menu:

- From the Toolbar

Clicking new plot on the Navigator Toolbar will create a new plot for the users' respective agency regardless of location in the navigator.

- Right Clicking on Agency



If the user has selected their agency it is possible to create a new plot by right clicking on the agency.

From the Plot Menu:

- From Plot controls

By clicking on the New Plot button at the Plot controls, a new plot will be created and the menu will move to the latest plot (Note: it will save previously entered data)

Plot Entry can be accessed in two ways: singularly or as an Agency whole. Singularly, the Plot Entry will open only one plot, in contrast; an Agency whole will open all Plots under one agency.

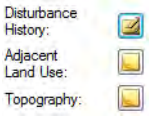
Please Note that the New Plot Button in the Plot Entry Screen is only accessible when All Plots in an Agency are opened.

6.4 Entering Plot Form Data

Filling out the plot definition:

- With the Plot dialog open, fill in the appropriate fields. Ensure that all mandatory fields (labeled in red) are filled in. You cannot save a plot definition without filling in the mandatory entries.
- Provide a plot label that is meaningful. This label will appear in the tree view and at the top of any reports.
- Optionally, a plot can be associated with a project. A project manager tool permits the creation of new projects. Once projects are defined, they can be selected from the dropdown menu.

- Complete at least one set of location parameters by either Lat/Long, UTM, or Legal description. You cannot save a plot without at least one location entry, but you can provide more than one location entry. Each button will highlight in blue if data is collected for that sub-form.
- Optionally provide notes by clicking the appropriate icon. A window will open to allow a user to enter detail descriptions. Notes that contain values will appear with a pencil icon while those without will have a basic icon.



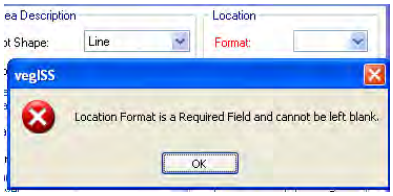
- Once all entries are complete, press the ***Save*** icon. If required values are entered, the plot information will be saved. If not, an error message will appear directing you to correct an issue on the form such as:
  - Fill out mandatory field
  - Fill in at least one set of location data for either Lat/Long, UTM, or Legal description
- To close the Plots form. Click the ***X*** at the top right corner of the form dialog.

6.5 Plot Form Data Fields

Field	Input Type	Mandatory	Comment
Plot ID	Automatic	Yes	Appears in the plot form header panel
Plot Label	Keyboard	No	Name used by the agency to identify the plot
Project Name	Dropdown	No	Project name used within the agency. Project Manager helps to create project definitions.
Agency	Automatic	No	Agency Code, Automatically Created
Confidentiality Level	Dropdown	No	Level of confidentiality of land ownership information.
Admin Unit	Keyboard	No	Land ownership or administrative unit
Sub Unit	Keyboard	No	Spatial subunit within administrative unit
Structural Type	Dropdown	Yes	General type of vegetation structure
Plot Shape	Dropdown	Yes	Shape of the plot
Plot Area	Keypad	No	The area of the plot in m^2. Note that plot area MUST be entered if plot-level density will be calculated from stem-count data (see Section 7.9.10).
Area of Inference	Keypad	No	Area (ha) which the plot is considered to represent
Land Use	Dropdown	Yes	Land use in the areas which the plot is considered to represent
Current Grazing Level	Dropdown	No	Level of current grazing use
Location Format	Dropdown	No	UTM, Decimal Degrees or Legal description
Location Source	Dropdown	Yes	Was the location obtained by GPS or read from a map?
Location Elevation	Keypad	No	Elevation above sea level (m)
Location Confidentiality	Dropdown	No	Level of confidentiality of location information
Ecoregion	Dropdown	Yes	According to Ecological Framework for Canada
Range Ecoregion	Dropdown	No	According to *Rangeland Ecosystems of Saskatchewan* (Thorpe 2007)
Ecosite Reference	Dropdown	Yes	Publication used for ecosite classification
Dominant Ecosite	Dropdown	Yes	The dominant ecosite. The list of ecosites depends on the Ecosite Reference selected.
Secondary Ecosite	Dropdown	No	If the plot is considered to represent a complex
Soil Zone	Dropdown	No	According to soil survey maps
Soil Map Unit	Keyboard	No	As shown on the 1:100,000 soil map
Texture Class	Dropdown	No	As shown on the 1:100,000 soil map
Slope Class	Dropdown	No	As shown on the 1:100,000 soil map
Salinity Class	Dropdown	No	As shown on the 1:100,000 soil map
Aspect	Keypad	No	Average slope aspect in degrees as determined in the field; use 999 for widely varying slopes within the plot.
Field Soil Assocation	Dropdown	No	Soil association determined in the field.
Field Dominant Texture	Dropdown	No	Dominant soil texture determined in the field.
Field Steepness %	Keypad	No	Average slope steepness in percent determined in the field; use 999 for widely varying slopes within the plot.
Field Salinity Evidence	Dropdown	No	Evidence of salinity observed in the field
Field Landform	Dropdown	No	Geomorphic landform based on mode of origin

Field	Input Type	Mandatory	Comment
Mottling	Keypad	No	Depth (cm) from the mineral soil surface to the appearance of mottling; only the top 100 cm of soil considered.
Gleying	Keypad	No	Depth (cm) from the mineral soil surface to the appearance of gleying; only the top 100 cm of soil considered.
Drainage Class	Dropdown	No	Drainage class determined in the field.
Disturbance History	Comment	No	Disturbances affecting the plot area
Adjacent Land Use	Comment	No	Land uses adjacent to the plot area
Topography	Comment	No	Patterns of topography in the plot area
Location	Comment	No	Notes on location of the plot.
Lat/Long	Grid input	No	Latitude/Longitude values (decimal degrees) for plot location. Multiple coordinates can be entered
UTM	Grid input	No	UTM values (metres) for plot location. Multiple coordinates can be entered
Legal	Grid input	No	Legal land description for plot location. Multiple coordinates can be entered
Dimension	Grid input	No	Plot dimension definition. Multiple dimension values can be entered
Soil Pits	Grid input	No	Soil pit/soil horizon definition. Multiple pits/horizons can be entered

Data is entered by filling in the boxes or using the drop down boxes to choose the appropriate information. Please make sure to save your changes.



It is not necessary to fill in every field if no information is available; however it is mandatory to fill in required fields. All mandatory fields are displayed with red labels. VegISS will check required fields and failure to enter information in them will result in an error message.

6.6 Plot Comments

Comment boxes are located throughout the program. Rather than be a long line for data entry they take the form of buttons which indicate whether a comment exists for them or not.

- - There is no comment yet
- - There is a comment

Clicking on the comment box will open a new window.

The comments box will allow multiple lines of entry and a scroll bar will appear if comments are long enough to need it.

Pressing save, delete or X will close the comment box.

6.7 Grid Inputs

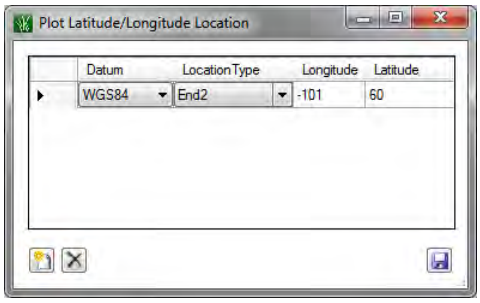
Other buttons exist in the Plot Form which opens additional forms to add supplemental information. These sub-forms include:

- Latitude/Longitude plot coordinates
- UTM plot coordinates
- Plot dimensions
- Plot legal description
- Soil pits and soil horizons

These buttons are also used as an indicator that data is present. For example, if UTM data exists for a given plot, the button text will change colour. This is a useful quick reminder whether values exist in a given sub-form.

NOTE: For plot location information (Lat/Long, UTM, Legal), at least one of these sub-forms must be entered in order to save a plot definition. You can enter more than one definition (i.e. UTM and Legal Description) for a single plot but there must be at least one definition for plot location defined. An error message will appear when saving a plot that does not have at least one location definition defined.

6.7.1 Plot Latitude/Longitude Location



The Plot location sub-form provides the ability to describe the plot location in geographic latitude/longitude coordinates. VegISS permits the collection of lat/long coordinates in decimal degree format (degree/minute/second format is not permitted).

Multiple coordinate values can be entered in the Lat/Long sub-form. Based on the location type defined, the user can enter enough coordinate values that help define the plot extent. This could be a single plot centre or perhaps endpoint values of a line. The entry is flexible but should make sense for proper location definition purposes.

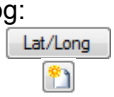
Coordinate values are restricted based on pre-defined/acceptable minimum/maximum coordinate ranges defined in the database. By default, coordinate values in VegISS are accepted only for values located within the province of Saskatchewan. These parameters are adjustable so that any realistic value for any province could be entered.

NOTE: Longitude values in Canada are always negative numbers. VegISS will not allow for the entry of positive longitude values unless permitted through updating the adjustable coordinate parameters.

6.7.1.1 Entering Latitude/Longitude Data

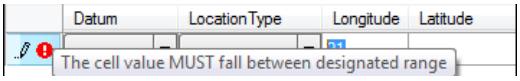
To create a Latitude/Longitude entry in the VegISS Plots dialog:

- Click the ***Lat/Long*** icon. The sub-form will open.



- To add a new entry click the ***Add*** icon

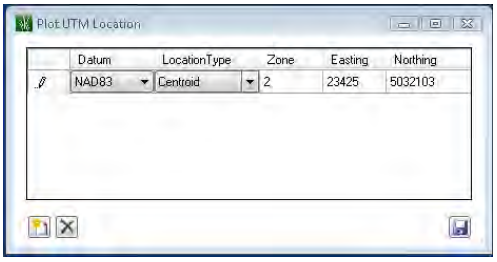
- Define the datum that the coordinates to be used are based on. Select the appropriate value for your coordinate data. Most common datums used in Saskatchewan are NAD83 or NAD27 (legacy).
- Define the location type which could be for a single point, centroid or end points
- Enter latitude/longitude coordinates as decimal degree values. Remember that longitude values begin with a negative number in North America. Values must meet a minimum valid coordinate range in order to be accepted before you can



complete the entry. If the coordinate entered is not considered valid, a red exclamation will be displayed until a proper coordinate is entered or the entry is cleared.

- Continue to add new entries as needed by clicking the Add icon
- To delete a row, click on the arrow to the left of the row to delete. The entire row will highlight. Then click the ***Delete*** icon. The row will be removed from the sub-form.
- To save and close the form click the ***Save*** icon

6.7.2 Plot UTM Location



The Plot location sub-form provides the ability to describe the plot location in UTM coordinates. VegISS permits the collection of zone/easting/northing coordinates in metre format.

Multiple coordinate values can be entered in the UTM sub-form. Based on the location type defined, the user can enter enough coordinate values that help define the plot extent. This could be a single point, the centroid of the plot area, the end points of a transect, or any point included within the plot. The entry is flexible but should make sense for proper location definition purposes.

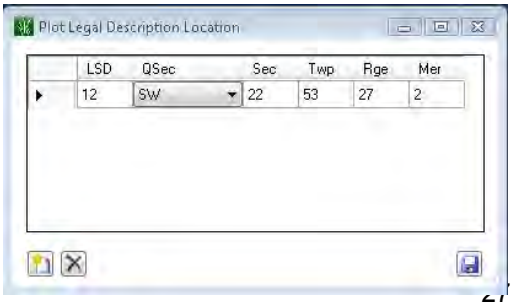
Coordinate values are restricted based on pre-defined/acceptable minimum/maximum coordinate ranges defined in the database. By default, coordinate values in VegISS are accepted only for values located within the province of Saskatchewan. These parameters are adjustable so that any realistic value for any province could be entered.

6.7.2.1 Entering UTM Data

To create a UTM entry in the VegISS Plots dialog:

- Click the ***UTM*** icon. The sub-form will open.
- To add a new entry click the ***Add*** icon
- Define the datum that the coordinates to be used are based on. Select the appropriate value for your coordinate data. Most common datums used in Saskatchewan are NAD83 or NAD27 (legacy).
- Define the location type which could be for a single point, centroid or end points
- Enter UTM zone/easting/northing coordinates as integer values. Values must meet a minimum valid coordinate range in order to be accepted before you can complete the entry. If the coordinate entered is not considered valid, a red exclamation will be displayed until a proper coordinate is entered or the entry is cleared.
- Continue to add new entries as needed by clicking the Add icon
- To delete a row, click on the arrow to the left of the row to delete. The entire row will highlight. Then click the ***Delete*** icon. The row will be removed from the sub-form.
- To save and close the form click the ***Save*** icon

6.7.3 Plot Legal Description



The Plot location sub-form provides the ability to describe the plot legal location. VegISS permits the collection of legal sub-division (LSD), quarter section, section, township, range and meridian.

Multiple locations can be entered in the legal description sub-form. This would only occur if the plot extended over a

border between two legal units (e.g. two quarter-sections), in which case a separate entry would be made for each unit.

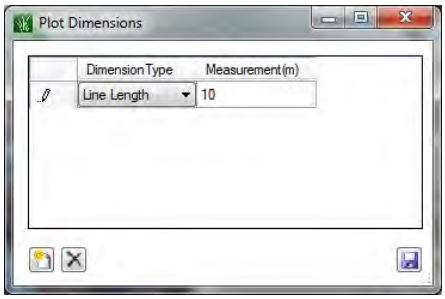
6.7.3.1 Entering Legal Description Data

To create a Legal Description entry in the VegISS Plots dialog:

- Click the ***Legal*** icon. The sub-form will open. 

- To add a new entry click the ***Add*** icon
- Enter the following information (all fields optional). No special auditing is performed on legal descriptions. It is up to the user to provide meaningful values.
    - Applicable Legal Sub-Division (LSD)
    - Applicable quarter section from dropdown list
    - Section, Township, Range, Meridian values; note that Meridian is a number (i.e. 3 not W3)
- Continue to add new entries as needed by clicking the ***Add*** icon
- To delete a row, click on the arrow to the left of the row to delete. The entire row will highlight. Then click the ***Delete*** icon. The row will be removed from the sub-form.
- To save and close the form click the ***Save*** icon

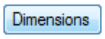
6.7.4 Plot Dimensions



The Plot Dimensions sub-form provides the ability to define the dimensions of a plot (i.e. length/width) in metres. Plot dimension values are not mandatory but are valuable information for defining the plot.

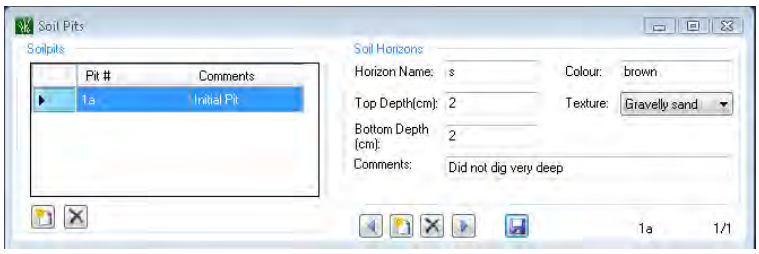
6.7.4.1 Entering Plot Dimension Data

To create a Plot Dimension entry in the VegISS Plots dialog:

- Click the ***Dimensions*** icon. The sub-form will open. 

- To add a new entry click the ***Add*** icon
- Define the dimension type which could be for a line length, diameter, etc.
- Enter the measurement for the dimension type selected in decimal metres
- Continue to add new entries as needed by clicking the Add icon
- To delete a row, click on the arrow to the left of the row to delete. The entire row will highlight. Then click the ***Delete*** icon. The row will be removed from the sub-form.
- To save and close the form click the ***Save*** icon

6.7.5 Soil Pits



The Soil Pits sub-form provides the ability to define any number of soil pits for a given plot. Soil pit definitions are broken into 2 parts:

- Pit Number
- Soil Horizons

This 2-tiered sub-form provides the ability to create a list of soil pits (left hand side of the form) and define one or more soil horizon definitions for each pit.

6.7.5.1 Entering Soil Pit Data

To create a Soil Pit entry in the VegISS Plots dialog:

- Click the ***Soil Pits*** icon. The sub-form will open. 

- To a a new soil pit, click the ***Add***  icon under the Soil Pits window.

Note: There are two add buttons on this form. One is for adding new soil pits and one is for adding Soil Horizons for the currently selected soil pit.

- Enter a pit number or reference and provide comments as needed.
- With a pit defined and selected (arrow in soil pit list indicates currently selected soil pit), Soil Horizons can be added. Click the second add icon (under the Soil Horizons window) to add a new soil horizon definition.
- Continue to add as many soil horizons needed for the selected soil pit
- Use the arrows to move between soil horizon definitions  for the selected soil pit
- To delete soil pits, highlight the row in the soil pit list and click the delete icon under the soil pit window. There are also 2 delete buttons, one for the soil pit and one for the current soil horizon.
- To delete a soil horizon, make sure the horizon to delete is displayed and press the ***Delete***  icon under the Soil Horizon window.
- At any time, add new soil pits as needed with the left-most ***Add***  icon
- To edit/add soil horizons to a list of more than one soil pit:
  - Select the pit on the left. The column will highlight.
  - Use the arrows to move between soil horizon definitions 
  - Edit as needed, add as needed, delete as needed
- To save edits and exit, press the ***Save***  icon

7 Surveys, Vegetation Sampling Tasks, and Health Assessment Forms

7.1 Overview

In VegISS a survey is created by opening either a Vegetation Sampling Tasks form or one of the the health assessment forms:

- Lotic Health Assessment
- Lentic Health Assessment
- Grassland Health Assessment
- Tame Health Assessment
- Forest Health Assessment – Indicator Method
- Forest Health Assessment - Quantitative Method

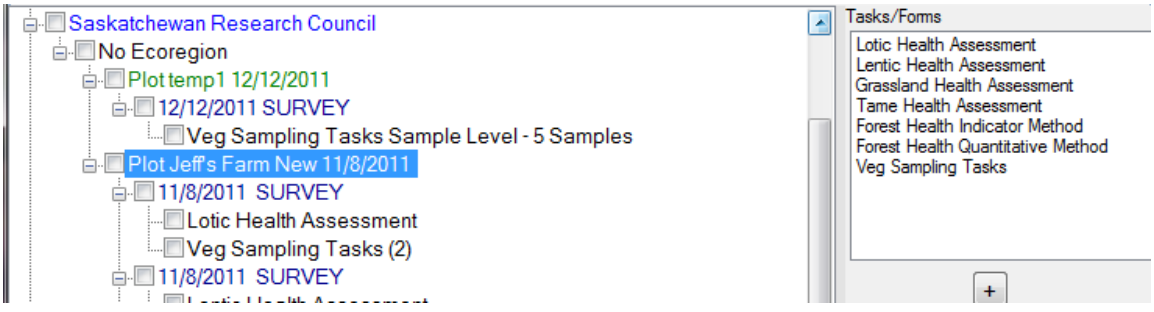
A survey may include Vegetation Sampling Tasks OR one of the health assessments, OR both Vegetation Sampling Tasks and a health assessment. However, a survey cannot include more than one health assessment.

7.2 Editing Surveys/Vegetation Sampling Tasks/Health Assessment Forms

7.2.1 Create a New Survey

To create a survey/form:

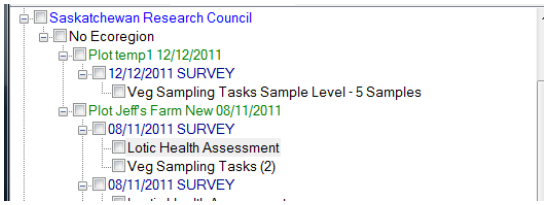
- Highlight the plot for which to create the survey in the tree view. The Tasks/Forms dialog will appear displaying potential options.
- If the survey will consist of Vegetation Sampling Tasks but no health assessment, then highlight ***Veg Sampling Tasks*** and press the [+] button. A combined form showing survey information and vegetation sampling tasks information will open. Multiple vegetation sampling tasks are added within the Vegetation Sampling Tasks form.
- If the survey will consist of both Vegetation Sampling Tasks and a health assessment, then you MUST open the health assessment form first. Highlight one of the health assessment methods and press the [+] button. A combined form showing survey information and the health assessment form will open.
- After you have filled out the survey information and the health assessment information, if you wish to add Vegetation Sampling Tasks, simply click the ***Vegetation Tasks*** button at the bottom of the health assessment form. The survey information from the health assessment form will automatically appear on the survey portion of the Vegetation Sampling Tasks form.



You can also add Vegetation Sampling Tasks to any survey listed in the tree view by highlighting the survey. The list of forms will show only Vegetation Sampling Tasks.

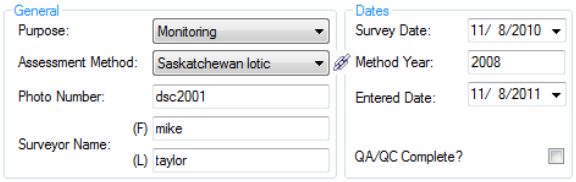
7.2.2 Edit an Existing Vegetation Sampling Task or Health Assessment Form

To open existing Vegetation Sampling Tasks or an existing health assessment form:



- Locate Vegetation Sampling Tasks or the health assessment form that you wish to edit in the tree view and highlight it with a single mouse click.
- Click the ***Folder***  icon in the main toolbar and the form will form will open
- Alternative methods for opening a form/task include:
    - Double-click Vegetation Sampling Tasks or the health assessment form in the tree view or
    - Right mouse click on Vegetation Sampling Tasks or the health assessment form and select ***Open {form/task name}***

7.2.3 Entering a Survey



The Survey portion of the Vegetation Sampling Tasks form or the health assessment forms carries a general design which is congruent throughout all forms.
The only required fields are Assessment Method and Method Year, all the rest are not mandatory but the user is encouraged to fill them in.

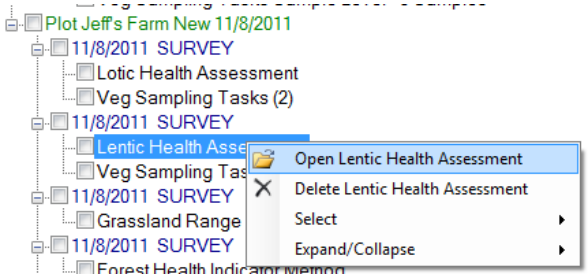
The Survey ID is automatically generated when the survey is first created and is displayed in the form header.

If the survey is created by opening a health assessment method, Assessment Method is automatically set to reflect the method chosen and Method Year is set to the publication year of that method (2008 for the current health assessment methods). If any of the Saskatchewan health assessment methods is modified in coming years, then the user would manually change Method Year to reflect the year of the revised method.

7.2.4 Survey Form Data Fields

Field	Input Type	Mandatory	Comment
SurveyID	Automatic	Yes	Unique identifier of the Survey
Assessment Method	Automatic/Dropdown	No	Health Assessment Method used
Purpose	Dropdown	No	Purpose for the survey
Surveyor Name (F)	Keyboard	No	Surveyor first name
Surveyor Name (L)	Keyboard	No	Surveyor last name
Survey Date	Dropdown	Yes	Date the survey was undertaken
Method Year	Automatic/Keypad	No	The publication year of the method
Entered Date	Dropdown	No	Date the form was filled out
QA/QC Complete?	Checkbox	No	Audit performed?

7.2.5 Editing/Deleting an Existing Health Assessment or Vegetation Sampling Tasks Form



Opening an existing Vegetation Sampling Tasks or health assessment form is simple and there are two ways of achieving this:

- Locate the desired form/task that you wish to view/edit
- Either double click on the form/task or right mouse click and select ***Open {form/task}***

NOTE: If the surveys are attached to a plot that is not in your agency, you will not be able to edit the form but can only view its contents.

Deleting a form/task is similar to editing:

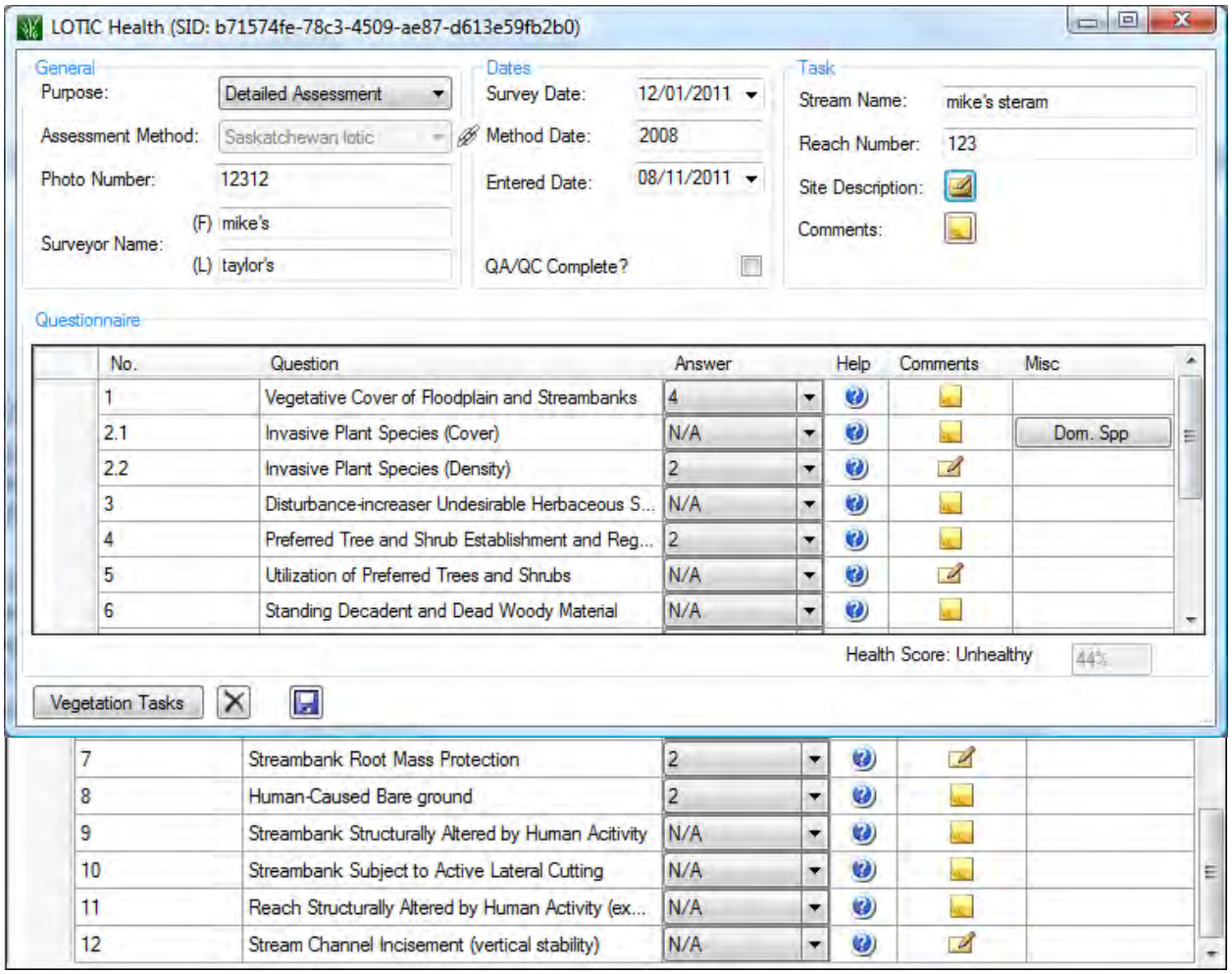
- Highlight the form/task to delete
- Click the ***Delete*** icon at the top of the VegISS navigator or right mouse click and select ***Delete {form/task}***.
- Deleting a survey will delete all components (forms and/or tasks) associated with it.
- Deleting a plot will delete all related surveys/forms/tasks

7.3 Lotic Health Assessment

The Lotic Health Assessment survey form is based on the Saskatchewan "Riparian Health Assessment – Field Sheet for Lotic Health". It consists of a questionnaire that includes 12 main questions (one question has 2 parts) along with other descriptive data.

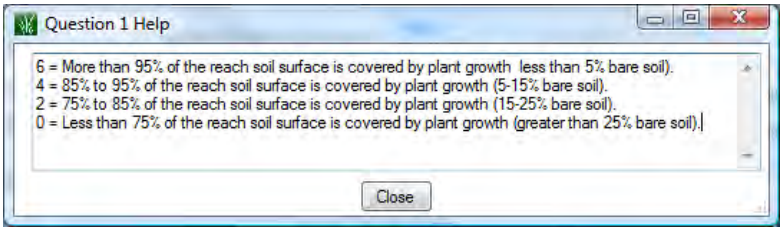
Survey questions that are omitted affect the total possible score that can be calculated. For instance the maximum possible score for this survey is 63 if all questions are answered with all answers being given the highest score. So, 63 / 63 would give a health score of 100%. If question 1 (with a maximum possible score of 6) was omitted, then the total possible score would then be 57 and 57/57 would also yield a health score of 100%. Only the Lotic/Lentic Health assessments have optional question functionality.

7.3.1 Input Form

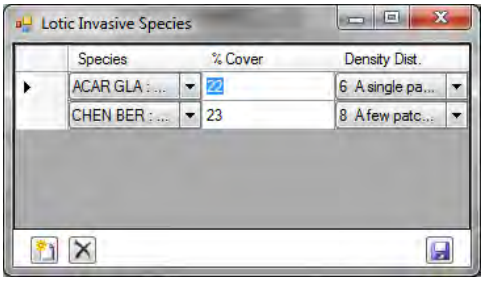


Each question in the assessment is provided in a grid format. All questions are not visible on the screen at one time but can be scrolled to see the remaining questions. The user can select their answer from the dropdown list or by typing the appropriate value. A question that is not applicable for the plot being surveyed can be omitted by leaving an ***N/A*** entry in the ***Answer*** column.

To determine what each answer value represents, the user can move the mouse over the ***Help*** icon to get more information. This will show all values available for a given question or may show more information on how to answer it. Alternatively, clicking on the help icon will open up a help dialog for the specific question.

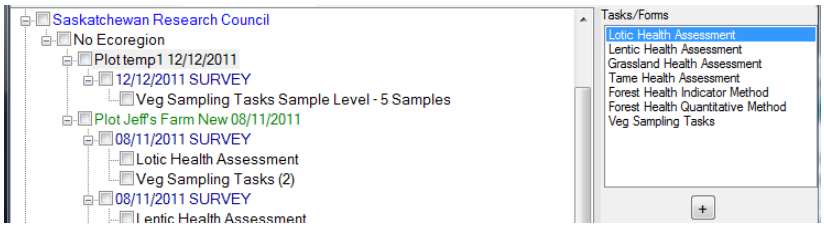


Question ***2.1*** of the Lotic Health Assessment includes a sub-form to enter multiple invasive species, cover percent and associated density distribution class data. There is no limit to the number of species that can be entered into this sub-form.



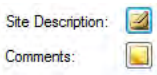
7.3.2 Creating/Editing a Lotic Health Assessment

Creating a Lotic Health Assessment is the same as creating any form/task in VegISS. For detailed instruction on creating/editing survey forms/tasks refer to sections 7.2.1 and 7.2.2 in this manual.

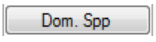


- From the VegISS Navigator tree view, highlight the plot that you intend to survey
- From the Task/Forms list, highlight ***Lotic Health Assessment***
- Create the new form by pressing the + icon or by double-clicking the form name in the Tasks/Forms window.
- An empty form will open.
- Enter the general survey information at the top of the form including the purpose, surveyor name and date information.
- Note that the Assessment method is automatically filled in based on the Lotic assessment form being used. The Method Date (publication year of the method) is automatically calculated. A link symbol between the two fields signifies this linkage.

- Site descriptions and comments are entered through the use of a comment dialog. Click the ***Comments*** icon next to the comment field to enter any appropriate comment data. A ***Pencil*** icon will appear in the form when comment information is entered in the form. The user can also move the mouse over the ***Pencil*** icon to display the collected information without opening the form.

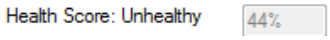


- Answer the questions in the questionnaire by selecting the appropriate score for each question. Not all questions are visible at one time and you must scroll through all 12 questions to complete this questionnaire.
- Help on answering each question is available through the associated ***Help*** icon.
- For a given question, comments can be attached using the Comments icon.
- Question ***2.1*** has an optional sub-form to enter dominant invasive species and is accessible clicking the ***Dom. Spp*** button. This will open a sub-form to allow you to enter multiple species, % cover and density distribution class values.



*NOTE: The Lotic Assessment consists of a questionnaire that includes 12 questions (one 2 part question). The survey computes a health score based on individual scores for each of the question. However, questions can be omitted in this questionnaire that is considered inappropriate for the plot being surveyed. Omitted questions should be answered as **N/A**.*

- When finished entering the survey, click the ***Save*** icon. Once saved, the ***Health Score*** at the bottom left corner of the form will update and a general health rating will be displayed.



- If Vegetation Sampling Tasks are also to be entered for this survey, click the ***Vegetation Tasks*** button (refer to section 7.9 for completing a Vegetation Sampling Task).

- To close the form, click ***X*** at the top right corner of the input screen.

7.3.3 Lotic Health Assessment Data Fields

Field	Input Type	Mandatory	Comment
SurveyID	Automatic	Yes	Unique identifier of the Survey displayed in form header
Assessment Method	Automatic/Dropdown	No	Assessment methodology (pre-loaded)
Purpose	Dropdown	No	Purpose for the survey
Surveyor Name (F)	Keyboard	No	Surveyor first name
Surveyor Name (L)	Keyboard	No	Surveyor last name
Survey Date	Dropdown	Yes	Date the survey was undertaken
Method Year	Automatic/Keypad	No	Publication date of the method
Entered Date	Dropdown	No	Date the form was filled out
QA/QC Complete?	Checkbox	No	Audit performed?
Stream Name	Keyboard	No	Stream name
Reach Number	Keyboard	No	Number assigned to the stream reach
Site Description	Comments	No	Site description comments
Comments	Comment	No	General assessment comments
Question 1	Dropdown	Yes	Vegetative Cover of Floodplain and Streambanks: Score (6,4,2,0)
Question 2.1	Dropdown	No	Invasive Species Cover: Score (6,4,2,0)
Question 2.1 – Dominant Species - Species Code	Dom. Spp sub-form Dropdown	Yes	Name of the invasive species
Question 2.1 – Dominant Species - %Cover	Dom. Spp sub-form Keyboard	No	Percent cover of the invasive species
Question 2.1 – Dominant Species - Density Distribution Class	Dom. Spp sub-form Dropdown	No	Density Distribution Class of the invasive species
Question 2.2	Dropdown	No	Invasive Plant Species Density: Score (3,2,1,0)
Question 3	Dropdown	No	Disturbance-increaser Undesirable Herbaceous Species: Score (3,2,1,0)
Question 4	Dropdown	No	Preferred Tree and Shrub Establishment and Regeneration: Score (6,4,2,0)
Question 5	Dropdown	No	Utilization of Preferred Trees and Shrubs: Score (3,2,1,0)

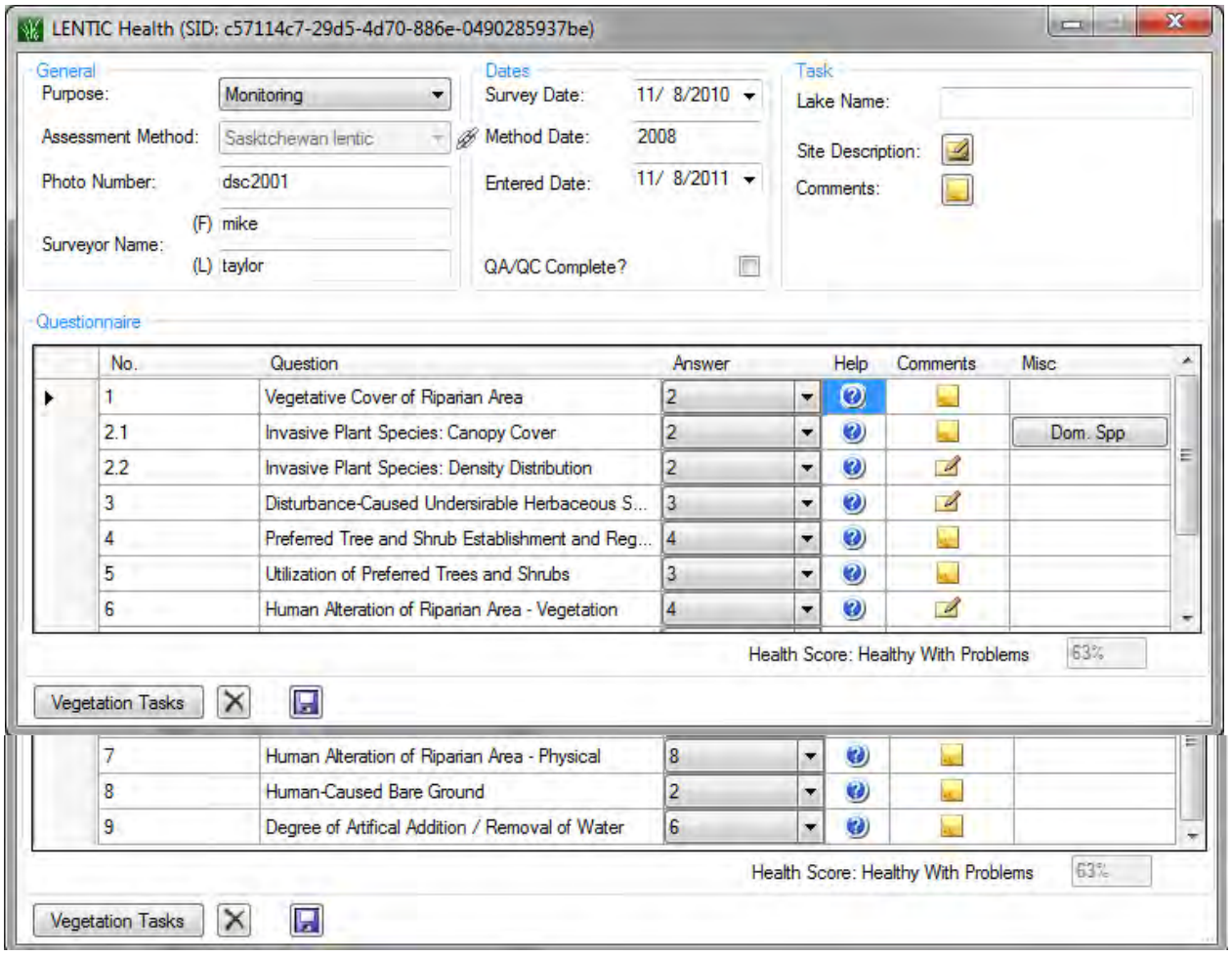
Field	Input Type	Mandatory	Comment
Question 6	Dropdown	No	Standing Decadent and Dead Woody Material: Score (3,2,1,0)
Question 7	Dropdown	No	Streambank Root Mass Protection: Score (6,4,2,0)
Question 8	Dropdown	No	Human-Caused Bare ground: Score (6,4,2,0)
Question 9	Dropdown	No	Streambank Structurally Altered by Human Acitivity: Score (6,4,2,0)
Question 10	Dropdown	No	Streambank Subject to Active Lateral Cutting: Score (6,4,2,0)
Question 11	Dropdown	No	Reach Structurally Altered by Human Activity (excl. banks): Score (3,2,1,0)
Question 12	Dropdown	No	Stream Channel Incisement (vertical stability): Score (9.6.3.0)

7.4 Lentic Health Assessment

The Lentic Health Assessment survey form is based on the Saskatchewan "Riparian Health Assessment – Field Sheet for Lentic Health". It consists of a questionnaire that includes 9 main questions (one question has 2 parts) along with other descriptive data.

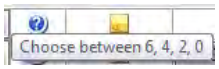
Survey questions that are omitted affect the total possible score that can be calculated. For instance the maximum possible score for this survey is 57 if all questions are answered with all answers being given the highest score. So, 57 / 57 would give a health score of 100%. If question 1 (with a maximum possible score of 6) was omitted, then the total possible score would then be 51 and 51/51 would also yield a health score of 100%. Only the Lotic/Lentic Health Assessments have optional question functionality.

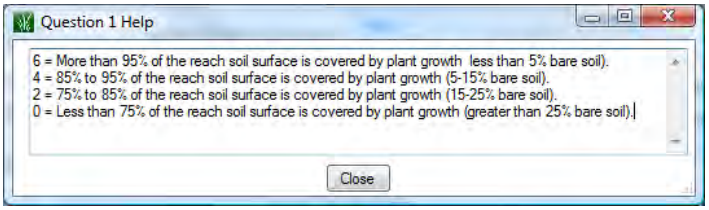
7.4.1 Input Form



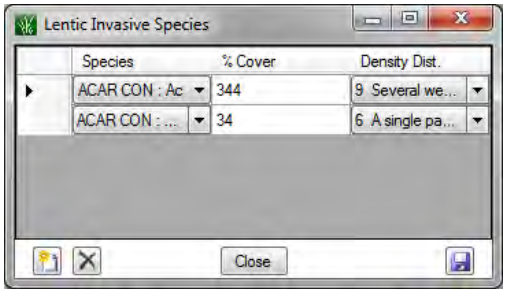
Each question in the assessment is provided in a grid format. All questions are not visible on the screen at one time but can be scrolled to see the remaining questions. The user can select their answer from the dropdown list or by typing the appropriate value. A question that is not applicable for the plot being surveyed can be omitted by leaving an ***N/A*** entry in the ***Answer*** column.

To determine what each answer value represents, the user can move the mouse over the ***Help*** icon to get more information. This will show all values available for a given question or may show more information on how to answer it. Alternatively, clicking on the ***Help*** icon will open up a help dialog for the specific question.



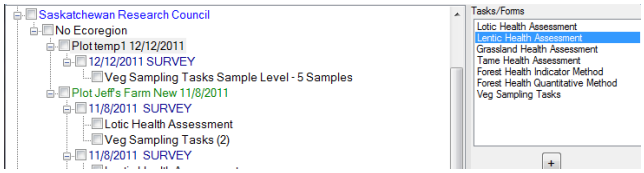


Question ***2.1*** of the Lentic Health Assessment includes a sub-form to enter multiple invasive species, cover percent and associated density distribution class data. There is no limit to the number of species that can be entered into this sub-form.

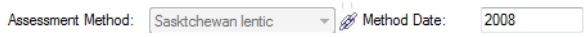


7.4.2 Creating/Editing a Lentic Health Assessment

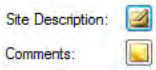
Creating a Lentic Health Assessment is the same as creating any form/task in VegISS. For detailed instruction on creating/editing survey forms/tasks refer to sections 7.2.1 and 7.2.2 in this manual.



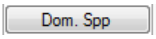
- From the VegISS Navigator tree view, highlight the plot that you intend to survey
- From the Task/Forms list, highlight ***Lentic Health Assessment***
- Create the new form by pressing the + icon or by double-clicking the form name in the Tasks/Forms window.
- An empty form will open.
- Enter the general survey information at the top of the form including the purpose, surveyor name and date information.
- Note that the Assessment method is automatically filled in based on the Lentic assessment form being used. The Method Date (publication year of the method) is automatically calculated. A link symbol between the two fields signifies this linkage.



- Site descriptions and comments are entered through the use of a comment dialog. Click the ***Comments*** icon next to the comment field to enter any appropriate comment data. A ***Pencil*** icon will appear in the form when comment information is entered in the form. The user can also move the mouse over the ***Pencil*** icon to display the collected information without opening the form.

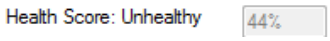


- Answer the questions in the questionnaire by selecting the appropriate score for each question. Not all questions are visible at one time and you must scroll through all 9 questions to complete this questionnaire.
- Help on answering each question is available through the associated ***Help*** icon.
- For a given question, comments can be attached using the ***Comments*** icon.
- Question ***2.1*** has an optional sub-form to enter dominant invasive species and is accessible clicking the ***Dom. Spp*** button. This will open a sub-form to allow you to enter multiple species, % cover and density distribution class values.

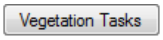


*NOTE: The Lentic Assessment consists of a questionnaire that includes 9 questions (one 2 part question). The survey computes a health score based on individual scores for each of the question. However, questions can be omitted in this questionnaire that is considered inappropriate for the plot being surveyed. Omitted questions should be answered as **N/A**.*

- When finished entering the survey, click the ***Save*** icon. Once saved, the ***Health Score*** at the bottom left corner of the form will update and a general health rating will be displayed.



- If Vegetation Sampling Tasks are also to be entered for this survey, click the ***Vegetation Tasks*** button (refer to section 7.9 for completing a Vegetation Sampling Task).



- To close the form, click ***X*** at the top right corner of the input screen.

7.4.3 Lentic Health Assessment Data Fields

Field	Input Type	Mandatory	Comment
SurveyID	Automatic	Yes	Unique identifier of the Survey displayed in form header
Assessment Method	Automatic/Dropdown	No	Assessment methodology (pre-loaded)
Purpose	Dropdown	No	Purpose for the survey
Surveyor Name (F)	Keyboard	No	Surveyor first name
Surveyor Name (L)	Keyboard	No	Surveyor last name
Survey Date	Dropdown	Yes	Date the survey was undertaken
Method Year	Automatic/Keypad	No	Publlication date of the method
Entered Date	Dropdown	No	Date the form was filled out
QA/QC Complete?	Checkbox	No	Audit performed?
Lake Name	Keyboard	No	Name of lake, slough, or wetland
Site Description	Comments	No	Site description comments
Comments	Comment	No	General assessment comments
Question 1	Dropdown	No	Vegetative Cover of Riparian Area: Score (6,4,2,0)
Question 2.1	Dropdown	No	Invasive Plant Species: Canopy Cover: Score (3,2,1,0)
Question 2.1 – Dominant Species - Species Code	Dom. Spp sub-form Dropdown	Yes	Name of the invasive species
Question 2.1 – Dominant Species - %Cover	Dom. Spp sub-form Keyboard	No	Percent cover of invasive species
Question 2.1 – Dominant Species - Density Distribution Class	Dom. Spp sub-form Dropdown	No	Density Distribution Class of the invasive species
Question 2.2	Dropdown	No	Invasive Plant Species Density Distribution: Score (3,2,1,0)
Question 3	Dropdown	No	Disturbance-Caused Undersirable Herbaceous Species: Score (3,2,1,0)
Question 4	Dropdown	No	Preferred Tree and Shrub Establishment and Regeneration score (6,4,2,0)
Question 5	Dropdown	No	Utilization of Preferred Trees and Shrubs: Score (3,2,1,0)
Question 6	Dropdown	No	Human Alteration of Riparian Area – Vegetation: Score (6,4,2,0)
Question 7	Dropdown	No	Human Alteration of Riparian Area – Physical: Score (12,8,4,0)

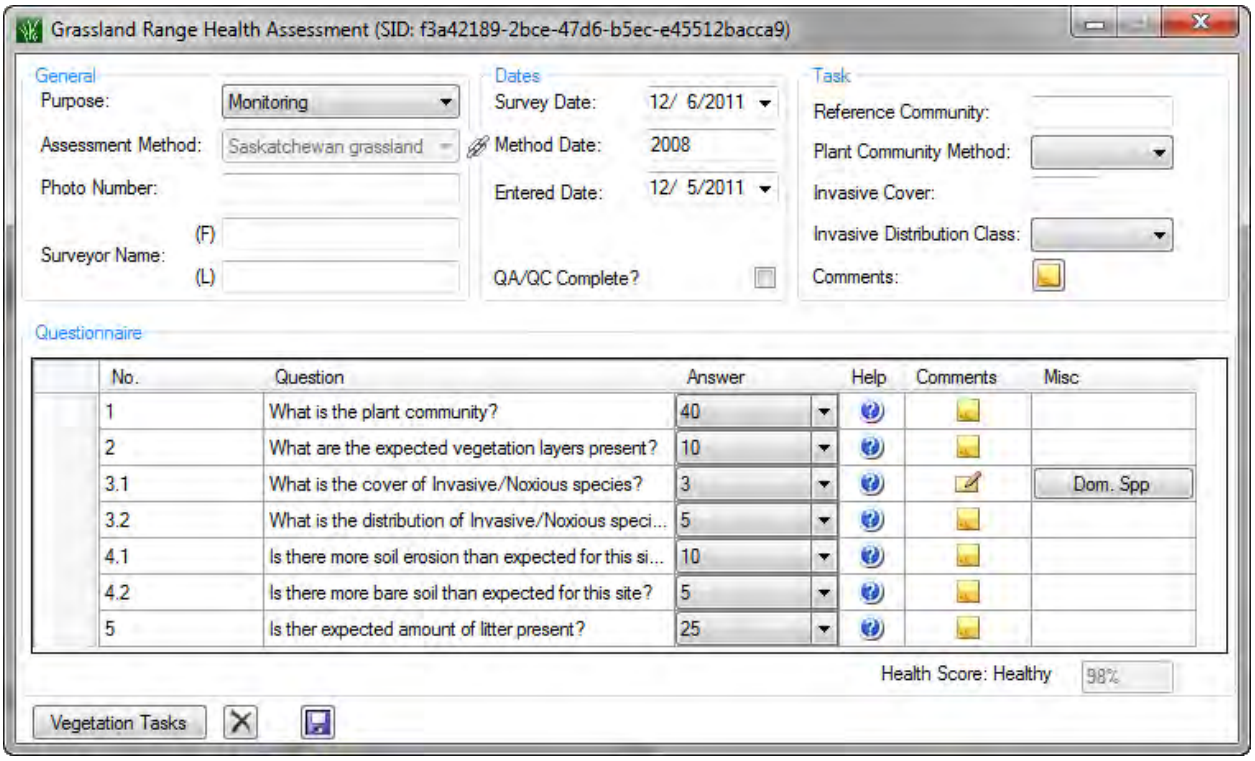
Field	Input Type	Mandatory	Comment
Question 8	Dropdown	No	Human-Caused Bare ground: Score (6,4,2,0)
Question 9	Dropdown	No	Degree of Artifical Addition / Removal of Water: Score (9,6,3,0)

7.5 Grassland Range Health Assessment

The Grassland Health Assessment survey form is based on the Saskatchewan "Field Worksheet: Grassland Range Health Assessment". It consists of a questionnaire that includes 5 main questions (two questions have 2 parts) along with other descriptive data.

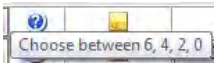
Unlike the Lotic/Lentic Health Assessments, survey questions cannot be omitted in the Grassland Range Health Assessment. A total possible Health score is 100.

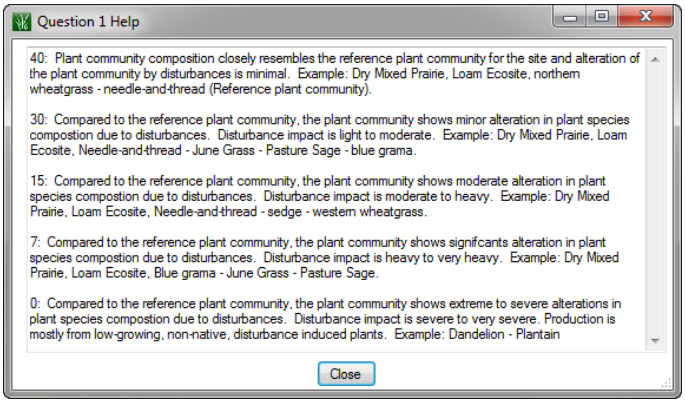
7.5.1 Input Form



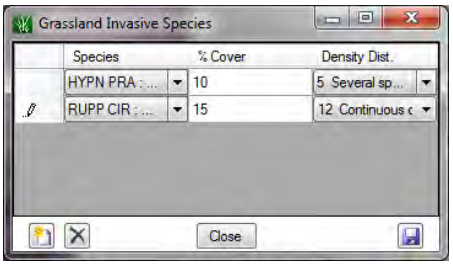
Each question in the assessment is provided in a grid format. All questions are visible on the screen at one time so scrolling to see remaining questions is not required in the Grassland Range Health Assessment. The user can select their answer from the dropdown list or by typing the appropriate value.

To determine what each answer value represents, the user can move the mouse over the ***Help*** icon to get more information. This will show all values available for a given question or may show more information on how to answer it. Alternatively, clicking on the ***Help*** icon will open up a help dialog for the specific question.





Question ***3.1*** of the Grassland Range Health Assessment includes a sub-form to enter multiple invasive species, cover percent and associated density distribution class data. There is no limit to the number of species that can be entered into this sub-form.



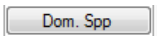
7.5.2 Creating/Editing a Grassland Range Health Assessment

Creating a Grassland Range Health Assessment is the same as creating any form/task in VegISS. For detailed instruction on creating/editing survey forms/tasks refer to sections 7.2.1 and 7.2.2 in this manual.

- From the VegISS Navigator tree view, highlight the plot that you intend to survey
- From the Task/Forms list, highlight ***Grassland Health Assessment***
- Create the new form by pressing the + icon or by double-clicking the form name in the Tasks/Forms window.
- An empty form will open.
- Enter the general survey information at the top of the form including the purpose, surveyor name and date information.
- Note that the Assessment method is automatically filled in based on the Grassland Range Health Assessment form being used. The Method Date (publication year of the method) is automatically calculated. A link symbol between the two fields signifies this linkage.

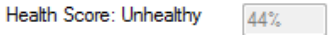
- Comments are entered through the use of a comment dialog. Click the ***Comments*** icon next to the comment field to enter any appropriate comment data. A ***Pencil*** icon will appear in the form when comment information is entered in the form. The user can also move the mouse over the ***Pencil*** icon to display the collected information without opening the form.

- Answer the 5 questions in the questionnaire by selecting the appropriate score for each question. Help on answering each question is available through the associated ***Help*** icon.
- For a given question, comments can be attached using the ***Comments*** icon.
- Question ***3.1*** has an optional sub-form to enter dominant invasive species and is accessible clicking the ***Dom. Spp*** button. This will open a sub-form to allow you to enter multiple species, % cover and density distribution class values.

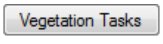


NOTE: The Grassland Range Health Assessment consists of a questionnaire that includes 5 questions (questions 3 and 4 have 2 part questions). The survey computes a health score based on individual scores for each of the question.

- When finished entering the survey, click the ***Save*** icon. Once saved, the ***Health Score*** at the bottom left corner of the form will update and a general health rating will be displayed.



- If Vegetation Sampling Tasks are also to be entered for this survey, click the ***Vegetation Tasks*** button (refer to section 7.9 for completing a Vegetation Sampling Task).



- To close the form, click ***X*** at the top right corner of the input screen.

7.5.3 Grassland Range Health Assessment Data Fields

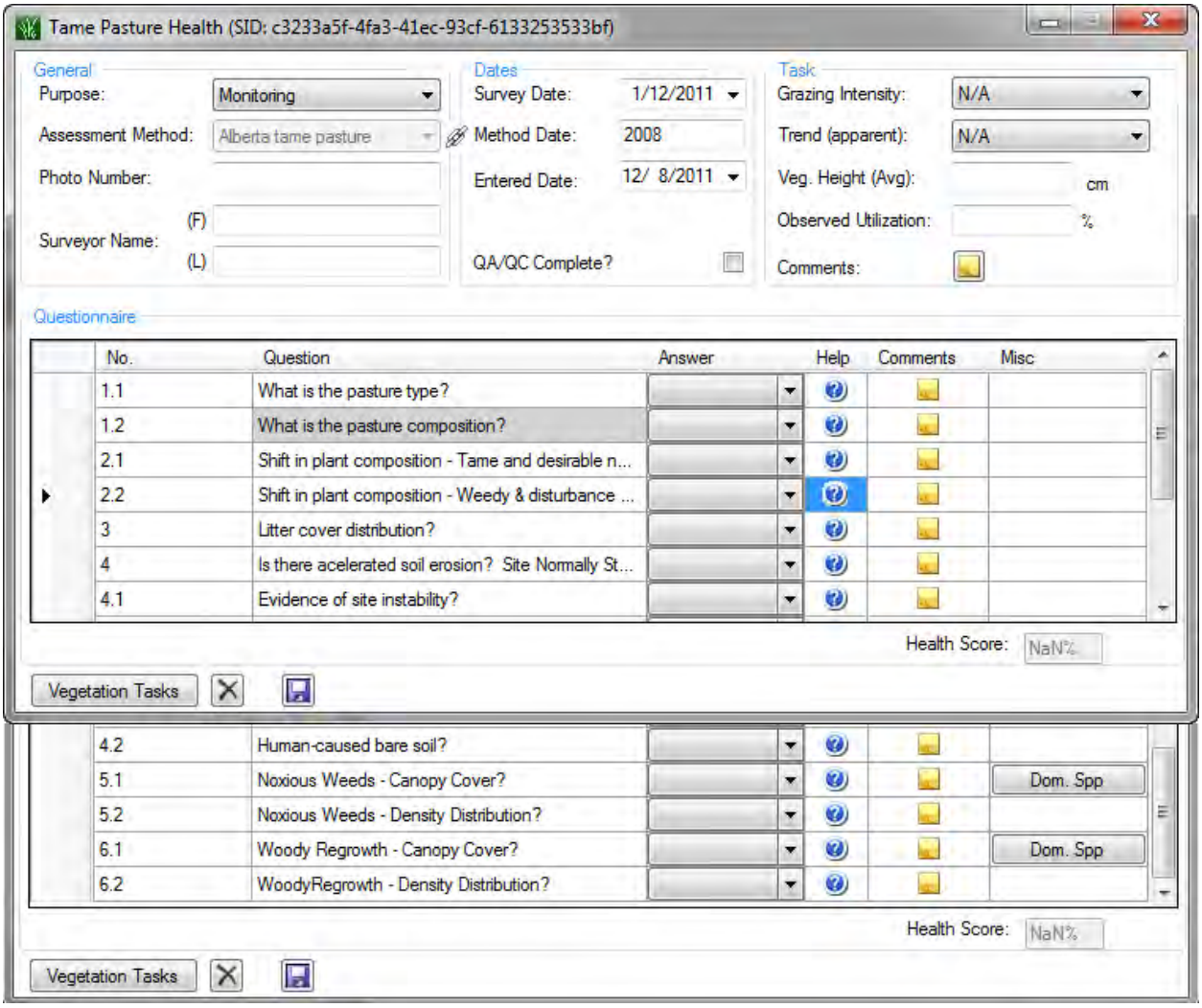
Field	Input Type	Mandatory	Comment
SurveyID	Automatic	Yes	Unique identifier of the Survey displayed in form header
Assessment Method	Automatic/Dropdown	No	Assessment methodology (pre-loaded)
Purpose	Dropdown	No	Purpose for the survey
Surveyor Name (F)	Keyboard	No	Surveyor first name
Surveyor Name (L)	Keyboard	No	Surveyor last name
Survey Date	Dropdown	Yes	Date the survey was undertaken
Method Year	Automatic/Keypad	No	Publication year of the method
Entered Date	Dropdown	No	Date the form was filled out
QA/QC Complete?	Checkbox	No	Audit performed?
Reference Community	Keyboard	No	Reference Community
Plant Community Method	Dropdown	No	Plant community method
Invasive Cover%	Keyboard	No	Cover percentage of invasive species
Invasive Distribution Class	Dropdown	No	Invasive species density distribution class
Comments	Comment	No	General assessment comments
Question 1	Dropdown	No	What is the plant community: Score (40,30,15,7,0)
Question 2	Dropdown	Yes	What are the expected vegetation layers present: Score (5,3,0)
Question 3.1	Dropdown	Yes	Invasive Plant Species: Canopy Cover: Score (3,2,1,0)
Question 3.1 – Dominant Species - Species Code	Dom. Spp sub-form Dropdown	Yes	Name of the invasive species
Question 3.1 – Dominant Species - %Cover	Dom. Spp sub-form Keyboard	No	Percent cover of invasive species
Question 3.1 – Dominant Species - Density Distribution Class	Dom. Spp sub-form Dropdown	No	Density Distribution Class of the invasive species
Question 3.2	Dropdown	Yes	What is the distribution of Invasive/Noxious species: Score (5,3,0)
Question 4.1	Dropdown	Yes	Is there more soil erosion than expected for this site: Score (10,7,3,0)
Question 4.2	Dropdown	Yes	Is there more bare soil than expected for this site: Score (5,3,2,0)
Question 5	Dropdown	Yes	Is the expected amount of litter present?: Score (25,13,0)

7.6 Tame Health Assessment

The Tame Health Assessment survey form is based on the Alberta "Tame Health Assessment Worksheet". It consists of a questionnaire that includes 6 main questions (several questions have multiple parts) along with other descriptive data.

Unlike the Lotic/Lentic Health Assessments, survey questions cannot be omitted in the Tame Health Assessment. A total possible Health score is 60 (for a tame pasture type) or 58 (for a modified tame pasture type).

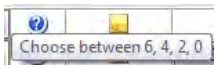
7.6.1 Input Form

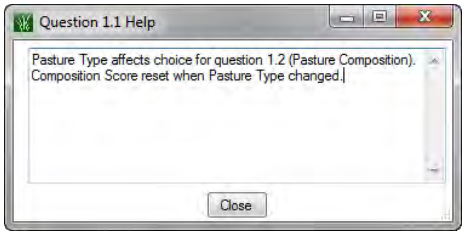


Each question in the assessment is provided in a grid format. All questions are not visible on the screen at one time but can be scrolled to see the remaining questions. The user can select their answer from the dropdown list or by typing the appropriate value.

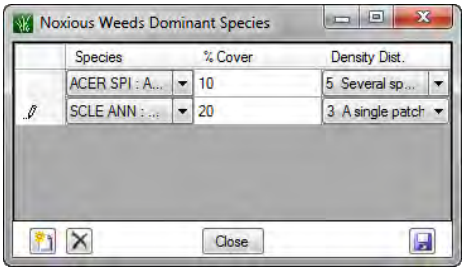
Question ***1.1*** contains a pasture type definition of Tame or Modified Tame. Depending on the value selected, the results will affect values for question ***1.2*** (pasture composition). If you change the pasture type, the pasture composition will be reset.

To determine what each answer value represents, the user can move the mouse over the ***Help*** icon to get more information. This will show all values available for a given question or may show more information on how to answer it. Alternatively, clicking on the ***Help*** icon will open up a help dialog for the specific question.





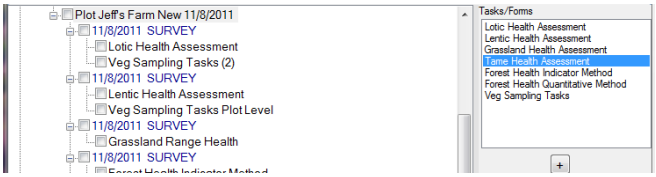
Questions ***5.1*** and ***6.1*** of the Tame Health Assessment includes a sub-form to enter multiple invasive species, cover percent and associated density distribution class data. There is no limit to the number of species that can be entered into this sub-form.



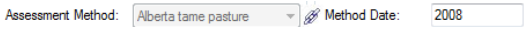
7.6.2 Creating/Editing a Tame Range Health Assessment

Creating a Tame Health Assessment is the same as creating any form/task in VegISS. For detailed instruction on creating/editing survey forms/tasks refer to sections 7.2.1 and 7.2.2 in this manual.

- From the VegISS Navigator tree view, highlight the plot that you intend to survey
- From the Task/Forms list, highlight ***Tame Health Assessment***
- Create the new form by pressing the + icon or by double-clicking the form name in the Tasks/Forms window.

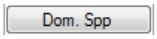


- An empty form will open.
- Enter the general survey information at the top of the form including the purpose, surveyor name and date information.
- Note that the Assessment method is automatically filled in based on the Tame Health Assessment form being used. The Method Date (publication year of the method) is automatically calculated. A link symbol between the two fields signifies this linkage.



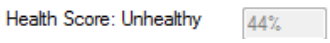
- Comments are entered through the use of a comment dialog. Click the ***Comments*** icon next to the comment field to enter any appropriate comment data. A ***Pencil*** icon will appear in the form when comment information is entered in the form. The user can also move the mouse over the ***Pencil*** icon to display the collected information without opening the form.

- Answer the 6 questions in the questionnaire by selecting the appropriate score for each question. Help on answering each question is available through the associated ***Help*** icon.
- For a given question, comments can be attached using the Comments icon.
- Questions ***5.1*** and ***6.1*** have an optional sub-form to enter dominant invasive species and are accessible by clicking the ***Dom. Spp*** button. This will open a sub-form to allow you to enter multiple species, % cover and density distribution class values.



NOTE: The Tame Health Assessment consists of a questionnaire that includes 5 questions (questions 1, 2, 4, 5 and 6 have multi-part questions). The survey computes a health score based on individual scores for each of the question.

- When finished entering the survey, click the ***Save*** icon. Once saved, the ***Health Score*** at the bottom left corner of the form will update and a general health rating will be displayed.



- If Vegetation Sampling Tasks are also to be entered for this survey, click the ***Vegetation Tasks*** button (refer to section 7.9 for completing a Vegetation Sampling Task).

- To close the form, click ***X*** at the top right corner of the input screen.

7.6.3 Tame Health Assessment Data Fields

Field	Input Type	Mandatory	Comment
SurveyID	Automatic	Yes	Unique identifier of the Survey displayed in form header
Assessment Method	Automatic/Dropdown	No	Assessment methodology (pre-loaded)
Purpose	Dropdown	No	Purpose for the survey
Surveyor Name (F)	Keyboard	No	Surveyor first name
Surveyor Name (L)	Keyboard	No	Surveyor last name
Survey Date	Dropdown	Yes	Date the survey was undertaken
Method Year	Automatic/Keypad	No	Publication year of the method
Entered Date	Dropdown	No	Date the form was filled out
QA/QC Complete?	Checkbox	No	Audit performed?
Grazing Intensity	Dropdown	No	Grazing intensity level
Trend	Dropdown	No	Apparent trend
Veg. Height	Keyboard	No	Average Vegetation height (cm)
Observed Utilization	Keyboard	No	Observed utilization percent
Comments	Comment	No	General assessment comments
Question 1.1	Dropdown	Yes	What is the pasture type (Tame, Modified Tame) Affects choice for question 1.2
Question 1.2	Dropdown	Yes	What is the pasture composition: Score Score options affected by choice in question 1.1 (Tame: 8,6,3) (Modified Tame: 6,3,0)
Question 2.1	Dropdown	Yes	Shift in plant composition - Tame and desirable native species: Score (8,4,0)
Question 2.2	Dropdown	Yes	Shift in plant composition - Weedy & disturbance species: Score (8,4,0)
Question 3	Dropdown	Yes	Litter cover distribution: Score (15,10,5,0)
Question 4	Dropdown	Yes	Is there accelerated soil erosion? Site Normally Stable (Stable, Unstable)
Question 4.1	Dropdown	Yes	Evidence of site instability: Score (6,4,2,0)
Question 4.2	Dropdown	Yes	Human-caused bare soil: Score (3,2,1,0)
Question 5.1	Dropdown	Yes	Noxious Weeds - Canopy Cover: Score (3,2,1,0)
Question 5.1 – Dominant Species - Species Code	Dom. Spp sub-form Dropdown	Yes	Name of the noxious species
Question 5.1 – Dominant Species - %Cover	Dom. Spp sub-form Keyboard	Yes	Noxious Weeds - Percent cover of noxious species

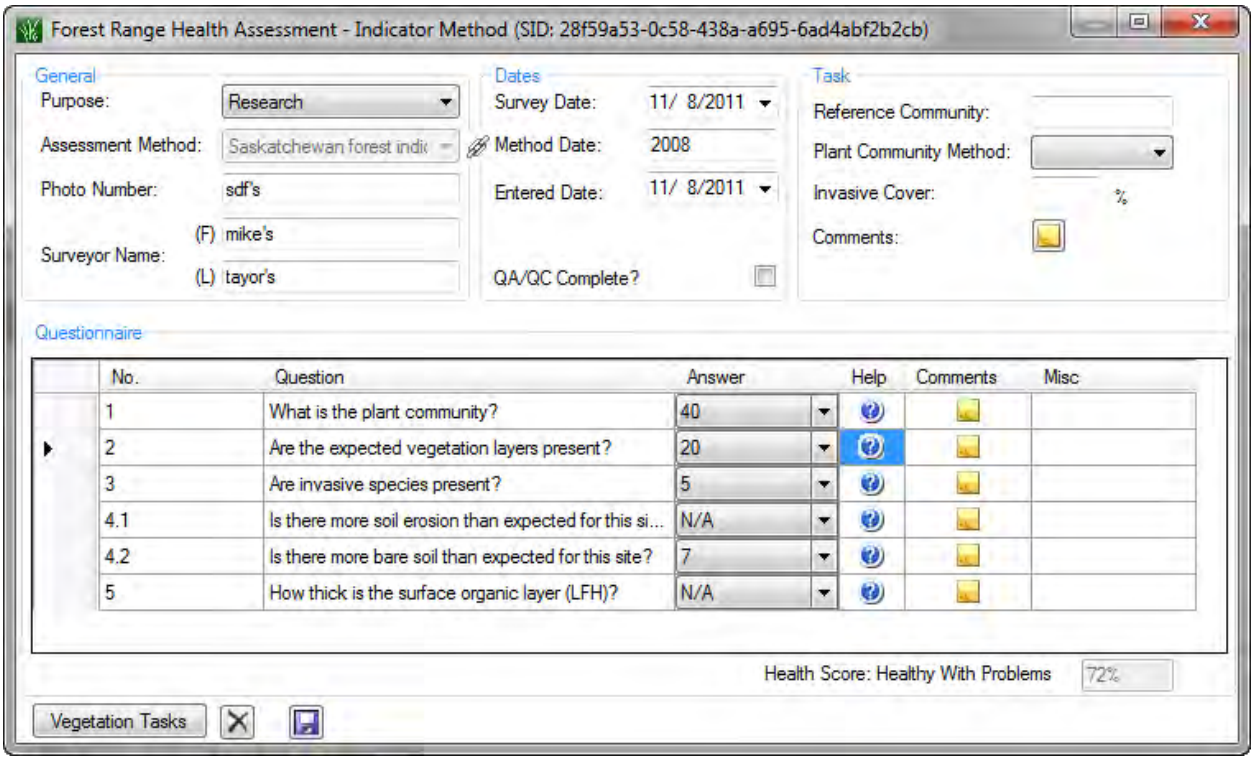
Field	Input Type	Mandatory	Comment
Question 5.1 – Dominant Species - Density Distribution Class	Dom. Spp sub-form Dropdown	No	Noxious Weeds - Density Distribution Class of the noxious species
Question 5.2	Dropdown	Yes	Noxious Weeds - Density Distribution: Score (5,3,0)
Question 6.1	Dropdown	Yes	Woody Regrowth - Canopy Cover: Score (3,2,1,0)
Question 6.1 – Dominant Species - Species Code	Dom. Spp sub-form Dropdown	Yes	Woody Regrowth - Invasive Species code
Question 6.1 – Dominant Species - %Cover	Dom. Spp sub-form Keyboard	Yes	Woody Regrowth - Percent cover of invasive species
Question 6.1 – Dominant Species - Density Distribution Class	Dom. Spp sub-form Dropdown	No	Woody Regrowth - Density Distribution Class code
Question 6.2	Dropdown	Yes	Woody Regrowth - Density Distribution: Score (3,2,1,0)

7.7 Forest Range Health Assessment – Indicator Method

The Forest Range Health Assessment - Indicator Method survey form is based on the Saskatchewan "Field Worksheet: Forest Range Health Assessment – Indicator Method". It consists of a questionnaire that includes 5 main questions (one questions has 2 parts) along with other descriptive data.

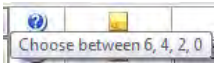
Unlike the Lotic/Lentic Health Assessments, survey questions cannot be omitted in the Forest Range Health Assessment – Indicator Method. A total possible Health score is 100.

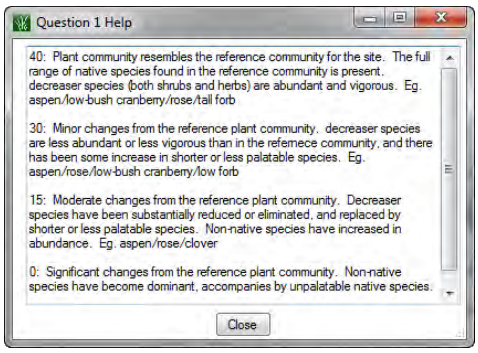
7.7.1 Input Form



Each question in the assessment is provided in a grid format. All questions are visible on the screen at one time so scrolling to see remaining questions is not required in the Forest Range Health Assessment. The user can select their answer from the dropdown list or by typing the appropriate value.

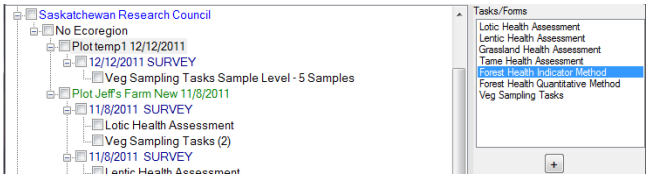
To determine what each answer value represents, the user can move the mouse over the ***Help*** icon to get more information. This will show all values available for a given question or may show more information on how to answer it. Alternatively, clicking on the ***Help*** icon will open up a help dialog for the specific question.





7.7.2 Creating/Editing a Forest Range Health Assessment – Indicator Method

Creating a Forest Range Health Assessment – Indicator Method is the same as creating any form/task in VegISS. For detailed instruction on creating/editing survey forms/tasks refer to sections 7.2.1 and 7.2.2 in this manual.



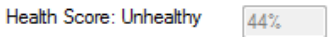
- From the VegISS Navigator tree view, highlight the plot that you intend to survey
- From the Task/Forms list, highlight ***Forest Health Indicator Method***
- Create the new form by pressing the + icon or by double-clicking the form name in the Tasks/Forms window.
- An empty form will open.
- Enter the general survey information at the top of the form including the purpose, surveyor name and date information.
- Note that the Assessment method is automatically filled in based on the Forest Range Health Assessment – Indicator Method form being used. The Method Date (publication year of the method) is automatically calculated. A link symbol between the two fields signifies this linkage.

- Comments are entered through the use of a comment dialog. Click the ***Comments*** icon next to the comment field to enter any appropriate comment data. A ***Pencil*** icon will appear in the form when comment information is entered in the form. The user can also move the mouse over the ***Pencil*** icon to display the collected information without opening the form.

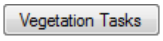
- Answer the 5 questions in the questionnaire by selecting the appropriate score for each question. Help on answering each question is available through the associated ***Help*** icon.
- For a given question, comments can be attached using the ***Comments*** icon.

NOTE: The Forest Range Health Assessment – Indicator Method consists of a questionnaire that includes 5 questions (question 4 is a 2 part question). The survey computes a health score based on individual scores for each of the question.

- When finished entering the survey, click the ***Save*** icon. Once saved, the ***Health Score*** at the bottom left corner of the form will update and a general health rating will be displayed.



- If Vegetation Sampling Tasks are also to be entered for this survey, click the ***Vegetation Tasks*** button (refer to section 7.9 for completing a Vegetation Sampling Task).



- To close the form, click ***X*** at the top right corner of the input screen.

7.7.3 Forest Range Health Assessment – Indicator Method Data Fields

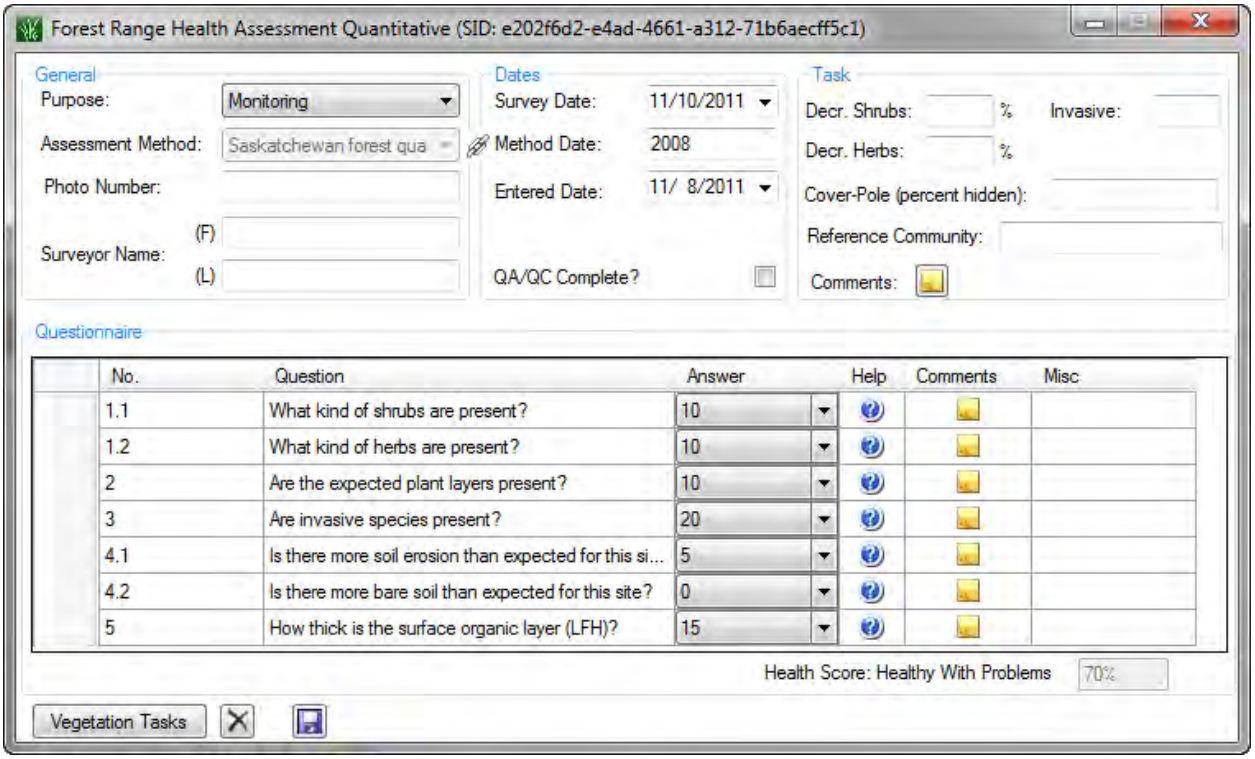
Field	Input Type	Mandatory	Comment
SurveyID	Automatic	Yes	Unique identifier of the Survey displayed in form header
Assessment Method	Automatic/Dropdown	No	Assessment methodology (pre-loaded)
Purpose	Dropdown	No	Purpose for the survey
Surveyor Name (F)	Keyboard	No	Surveyor first name
Surveyor Name (L)	Keyboard	No	Surveyor last name
Survey Date	Dropdown	Yes	Date the survey was undertaken
Method Year	Automatic/Keypad	No	Publication year of the method
Entered Date	Dropdown	No	Date the form was filled out
QA/QC Complete?	Checkbox	No	Audit performed?
Reference Community	Keyboard	No	Name of a published reference community to which the surveyed community was compared
Plant Community Method	Dropdown	No	Method used to determine the plant community score: subjective assessment based on walkthrough, or calculate of % similarity using composition data.
Invasive Cover%	Keyboard	No	Percent cover of invasive species
Comments	Comment	No	General assessment comments
Question 1	Dropdown	No	What is the plant community: Score (40,30,15,0)
Question 2	Dropdown	Yes	Are the expected vegetation layers present: Score (20,10,5,0)
Question 3	Dropdown	Yes	Are invasive species present: Score (10,5,0)
Question 4.1	Dropdown	Yes	Is there more soil erosion than expected for this site: Score (5,3,1,0)
Question 4.2	Dropdown	Yes	Is there more bare soil than expected for this site: Score (10,7,3,0)
Question 5	Dropdown	Yes	How thick is the surface organic layer (LFH): Score (15,10,5,0)

7.8 Forest Range Health Assessment – Quantitative Method

The Forest Range Health Assessment - Quantitative Method survey form is based on the Saskatchewan "Field Worksheet: Forest Range Health Assessment – Quantitative Method". It consists of a questionnaire that includes 5 main questions (one questions has 2 parts) along with other descriptive data.

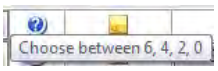
Unlike the Lotic/Lentic Health Assessments, survey questions cannot be omitted in the Forest Range Health Assessment – Quantitative Method. A total possible Health score is 100.

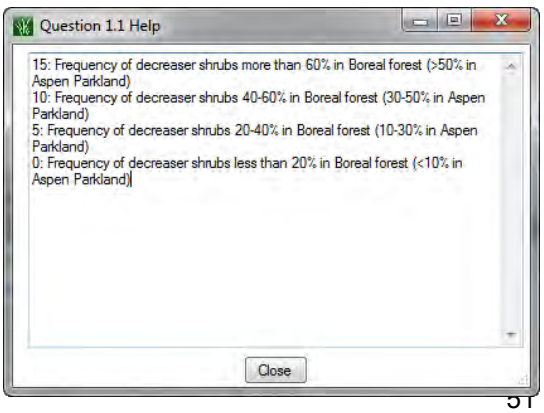
7.8.1 Input Form



Each question in the assessment is provided in a grid format. All questions are visible on the screen at one time so scrolling to see remaining questions is not required in the Forest Range Health Assessment. The user can select their answer from the dropdown list or by typing the appropriate value.

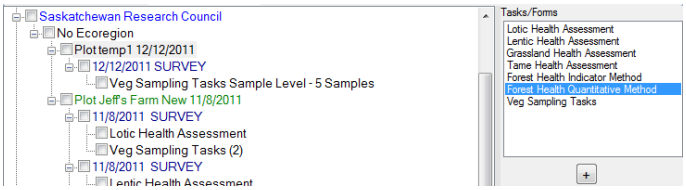
To determine what each answer value represents, the user can move the mouse over the ***Help*** icon to get more information. This will show all values available for a given question or may show more information on how to answer it. Alternatively, clicking on the ***Help*** icon will open up a help dialog for the specific question.





7.8.2 Creating/Editing a Forest Range Health Assessment – Quantitative Method

Creating a Forest Range Health Assessment – Quantitative Method is the same as creating any form/task in VegISS. For detailed instruction on creating/editing survey forms/tasks refer to sections 7.2.1 and 7.2.2 in this manual.



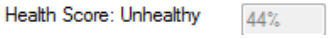
- From the VegISS Navigator tree view, highlight the plot that you intend to survey
- From the Task/Forms list, highlight ***Forest Health Quantitative Method***
- Create the new form by pressing the + icon or by double-clicking the form name in the Tasks/Forms window.
- An empty form will open.
- Enter the general survey information at the top of the form including the purpose, surveyor name and date information.
- Note that the Assessment method is automatically filled in based on the Forest Range Health Assessment – Quantitative Method form being used. The Method Date (publication year of the method) is automatically calculated. A link symbol between the two fields signifies this linkage.

- Comments are entered through the use of a comment dialog. Click the ***Comments*** icon next to the comment field to enter any appropriate comment data. A ***Pencil*** icon will appear in the form when comment information is entered in the form. The user can also move the mouse over the ***Pencil*** icon to display the collected information without opening the form.

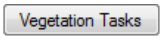
- Answer the 5 questions in the questionnaire by selecting the appropriate score for each question. Help on answering each question is available through the associated ***Help*** icon.
- For a given question, comments can be attached using the ***Comments*** icon.

NOTE: The Forest Range Health Assessment – Indicator Method consists of a questionnaire that includes 5 questions (questions 1 and 4 are 2 part questions). The survey computes a health score based on individual scores for each of the question.

- When finished entering the survey, click the ***Save*** icon. Once saved, the ***Health Score*** at the bottom left corner of the form will update and a general health rating will be displayed.



- If Vegetation Sampling Tasks are also to be entered for this survey, click the ***Vegetation Tasks*** button (refer to section 7.9 for completing a Vegetation Sampling Task).



- To close the form, click ***X*** at the top right corner of the input screen.

7.8.3 Forest Range Health Assessment – Quantitative Method Data Fields

Field	Input Type	Mandatory	Comment
SurveyID	Automatic	Yes	Unique identifier of the Survey displayed in form header
Assessment Method	Automatic/Dropdown	No	Assessment methodology (pre-loaded)
Purpose	Dropdown	No	Purpose for the survey
Surveyor Name (F)	Keyboard	No	Surveyor first name
Surveyor Name (L)	Keyboard	No	Surveyor last name
Survey Date	Dropdown	Yes	Date the survey was undertaken
Method Year	Automatic/Keypad	No	Publication year of the method
Entered Date	Dropdown	No	Date the form was filled out
QA/QC Complete?	Checkbox	No	Audit performed?
Decr. Shrubs	Keyboard	No	% frequency of decreaser shrubs
Decr. Herbs	Keyboard	No	% frequency of decreaser herbs
Invasive	Keyboard	No	% frequency of invasive species
Cover-Pole (percent hidden)	Keyboard	No	The average percent of the cover-pole that is hidden
Reference Community	Keyboard	No	Name of a published reference community to which the surveyed community was compared
Comments	Comment	No	General assessment comments
Question 1.1	Dropdown	Yes	What kind of shrubs are present:: Score (40,30,15,0)
Question 1.2	Dropdown	Yes	What kind of herbs are present:: Score (15,10,5,0)
Question 2	Dropdown	Yes	Are the expected plant layers present: Score (20,10,5,0)
Question 3	Dropdown	Yes	Are invasive species present: Score (20,15,10,5,0)
Question 4.1	Dropdown	Yes	Is there more soil erosion than expected for this site: Score (5,3,1,0)
Question 4.2	Dropdown	Yes	Is there more bare soil than expected for this site: Score (10,7,3,0)
Question 5	Dropdown	Yes	How thick is the surface organic layer (LFH): Score (15,10,5,0)

7.9 Vegetation Sampling Tasks

7.9.1 Overview

Vegetation Sampling Tasks (VSTs) are the various tasks by which vegetation is sampled within a given survey. These tasks can be combined with a health assessment (i.e. Lotic/Lentic, Forest Health, etc.) or can be considered a stand-alone survey for a specified plot.

Each survey can have one or more Vegetation Sampling Tasks. However, only a single line is displayed for Vegetation Sampling Tasks in the VegISS Navigator. To help the user, two representations are used to display a Vegetation Sampling Task in the Navigator tree view:

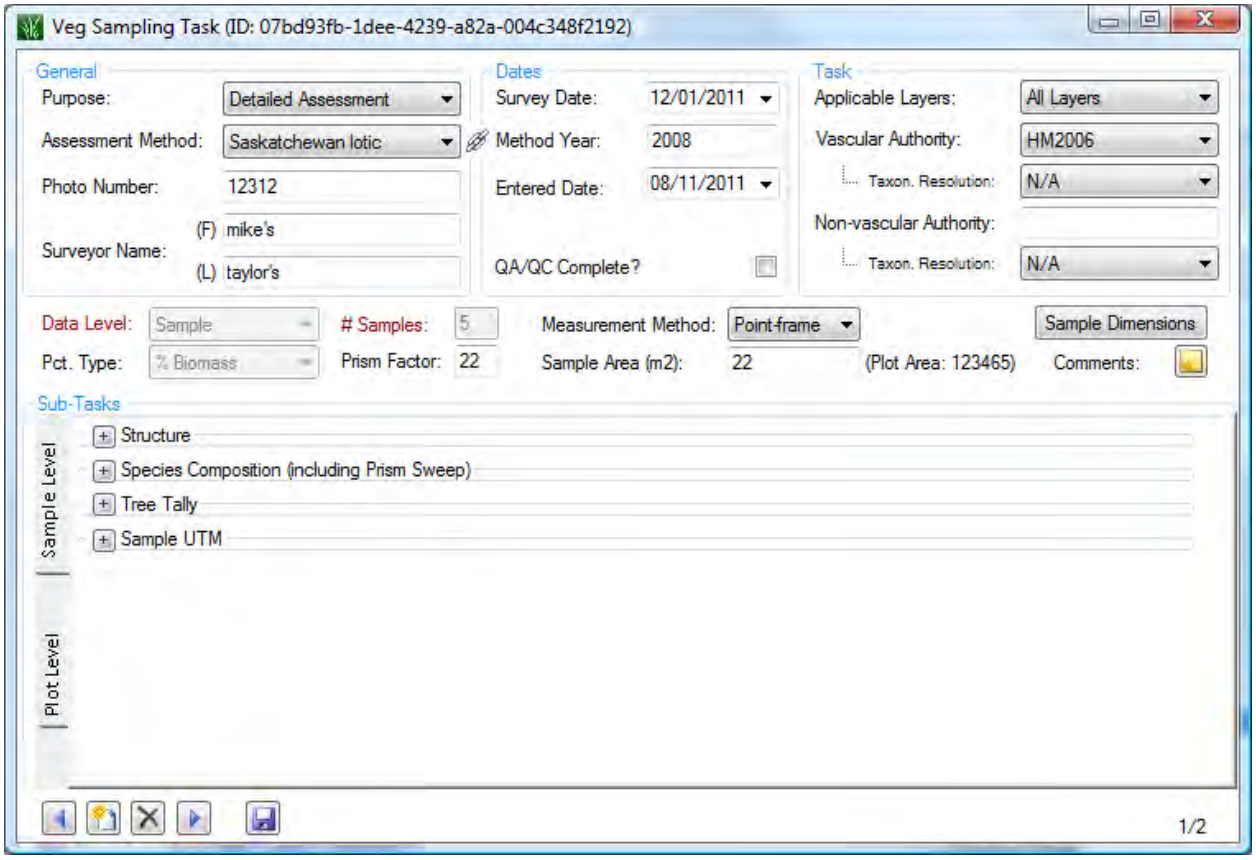
- ***Single Task*** Describe the task (Sample level with number of samples, or Plot level)

  12/12/2011 SURVEY
  - Veg Sampling Tasks Sample Level - 5 Samples

- ***Multiple Tasks*** List number of tasks when 2 or more sampling tasks are included with survey

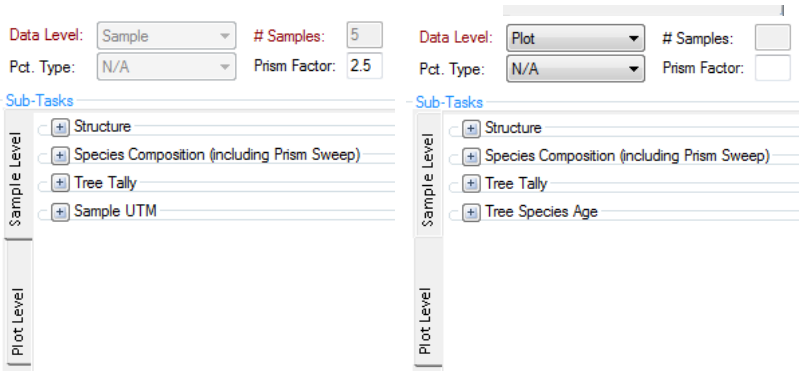
  08/11/2011 SURVEY
  - Lotic Health Assessment
  - Veg Sampling Tasks (2)

7.9.2 Main Vegetation Sampling Tasks Input Form



7.9.3 Understanding Vegetation Sampling Tasks

VSTs are designated with a data level of either ***Sample***-Level or ***Plot***-Level. Users enter survey data based on the data level but users that chose Sample-Level data can also summarize sample level data to the plot level. Sample and Plot Level tabs control what input forms can be used and what sub-forms are available at that level.



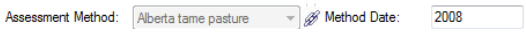
*Note: When creating a new task, it is important to fill out the **Data Level** before opening the sub-forms components. It is impossible to open the sub-forms prior to fulfilling the required settings.*

Data from each Vegetation Sampling Task can be entered using one or more sub-forms. These sub-forms are listed in the bottom of the main Vegetation Sampling Tasks input form and expand and collapse using **+/-** buttons. The sub-forms available on the Vegetation Sampling Task form include:

- Structure - Sample/Plot levels
- Species Composition (including Prism Sweep) – Sample/Plot levels
- Tree Tally – Sample/Plot levels
- Sample UTM – Sample level only
- Tree Species Age – Plot level only

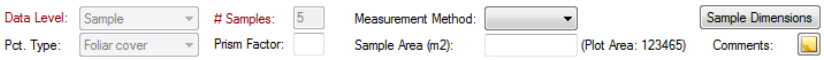
7.9.4 Creating Vegetation Sampling Tasks

- Use one of the above-listed methods for creating a VST. An Empty form will open.
- Enter the general survey information including the purpose, surveyor name and date information in the ***General*** and ***Dates*** boxes in the upper left part of the form. If the survey has already been created by filling out one of the health assessment forms, then much of this information will already be pre-loaded.
- Note that the Assessment Method is automatically set if the VSTs are linked to a health assessment. If they are not linked to a health assessment, then select ***None***. The Method Date (publication year of the method) is automatically calculated. A link symbol between the two fields signifies this linkage.

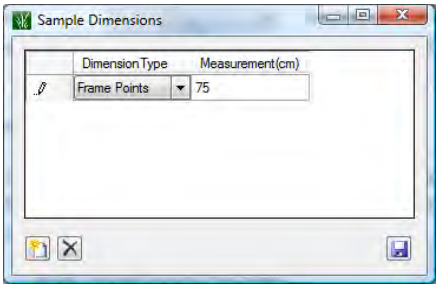


- Defining a VST begins with the ***Task*** box in the upper right part of the form. The Task portion of the input form is entered for each task while the ***General***/***Dates*** portion which defines the survey is only entered once and will be displayed on the form for each new task. If you change any values in the ***General***/***Dates*** sections for any task created, all tasks will report the same information (i.e. you cannot have one task listed with one surveyor name and another task listed with another if they are considered part of the same overall survey).
- Enter the applicable vegetation layers for the task (i.e. does the task only deal with the tree layer, the shrub layer, the herb layer, or all layers?).
- The Vascular Authority is automatically set to ***Harms 2006***, the publication used for vascular plants in the current version of VegISS. If in the future a new vascular authority is selected this will be changed.
- Enter the level of taxonomic resolution of the task: if the task involved identification of all species, enter ***ID all species***. If not all species were identified, choose the option which describes the level of generalization. For example, if sedges were grouped as *Carex* spp., then choose ***some species lumped***". If only the common or dominant species were recorded, choose these options.
- If non-vascular plants (lichens or bryophytes) were recorded, provide the taxonomic authority and level of taxonomic resolution for these components.

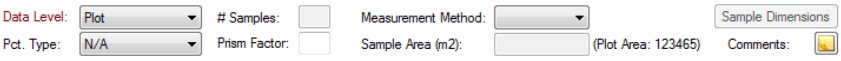
- The Data Level must be set next. This is the most important component to the VST as it dictates the kind of sub-forms and where the data will be stored. The choice is sample level or plot level.
- If ***Sample*** level:



  - The number of samples must be defined
  - Sample Area (m^2) (i.e. the area of the sample quadrat) can optionally be defined for use in calculating sample density values.
  - Sample Dimensions can optionally be defined by pressing the ***Sample Dimensions*** button. A sub-form will open where the user can define the dimensions of a sample. One or more dimension values can be defined. Click the ***Add*** icon to add new dimension entries. Click the ***Save*** icon to save and close the form



- If ***Plot*** level:



  - The number of samples is disabled and will be greyed out
  - Sample area is disabled and will be greyed out
  - Sample Dimensions is disabled and will be greyed out
- If the task involves collecting species composition data as some type of percentage, select a Percent Type (***Pct. Type*** on the form) value. Percent types include:
  - % frequency – percent of samples in which the species was present (should only be used for plot-level data)
  - % biomass – percent contribution of the species to the total biomass in the layer; note that this is relative to the total biomass of the "applicable layers" as specified for the task.
  - foliar cover – percent cover of the above-ground plant parts of the species, not including gaps within canopies.
  - canopy cover – percent cover of plant canopies of the species, including gaps within canopies
  - unspecified cover – percent cover which is not specified as foliar or canopy cover
  - basal cover – percent cover of the bases of the plants
- Percent type should be set to ***N/A*** if you are not collecting percentage data.
- Enter the measurement method. Methods include:
  - plot estimates – estimates made over the whole plot; should only be used for plot-level data
  - quadrats – estimates made in sample quadrats within the plot; should only be used for sample-level data
  - point-frame – cover estimates made by the point-frame method
  - line-intercept – cover estimates made by the line-intercept method
  - prism sweep – tree basal area estimates made by the prism method or some other form of variable-radius sampling
- If the prism sweep method is used, it is necessary to enter the numerical prism factor
- Comments are entered through the use of a comment dialog. Click the ***Comments*** icon next to the comment field to enter any appropriate comment data. A ***Pencil*** icon will appear in the form when comment information is entered in the form. The user can also move the mouse over the ***Pencil*** icon to display the collected information without opening the form.

- Click the ***Save*** icon at the bottom of the form to save the settings which define the Vegetation Sampling Task. For sample-level data, you must save the main form before sub-form information can been entered. This is to confirm the number of samples you will be entering sub-form. When set to sample level, sub-forms are greyed out until the main form with the task definitions is saved.
- After you have entered the data for a particular task using the sub-forms, you can add a new task by pressing the ***New Task*** icon at the lower left of the main form. It will have the same survey

information in the ***General*** and ***Dates*** boxes, but new information on applicable layers, taxonomic resolution, data level, measurement method, etc. is entered to define the next task.

Sub-forms are used to enter the vegetation data within a VST. Sub-forms are filled out much the same way any other forms are filled out; however they offer their own group box that can be opened or closed. As a result, each sub-form behaves much like an independent "mini-form" with its own set of navigation controls. These controls appear in the bottom left of the sub-form, but should not be confused with main navigation controls for the overall VST form. When  a sub-form is open, the navigation controls will appear at the bottom of the sub-form box, while the main navigation controls for the overall VST form will appear below the sub-form controls, and are a little larger. The sub-form navigation controls are used within the sub-form (e.g. for adding new species or saving the sub-form), while the main navigation controls are used for saving the overall task or adding new tasks.

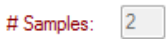
Now that the main task definition is complete, it is time to enter the vegetation data for the task using the sub-forms. The following sections describe each of these sub-forms in detail.

For a complete list of field definitions for the Vegetation Sampling Task, see section 7.9.13.

7.9.5 Sample Level: Structure Sub-form

7.9.5.1 Overview

The Structure sub-form stores vegetation structure data for each sample. Vegetation structure data consists of vegetation layers (e.g. trees, shrubs, herbs, bryophytes, litter, bare soil) with abundance values for each. The only abundance values available are percent cover, cover-class using the Daubenmire or Modified Daubenmire scale, and weight.

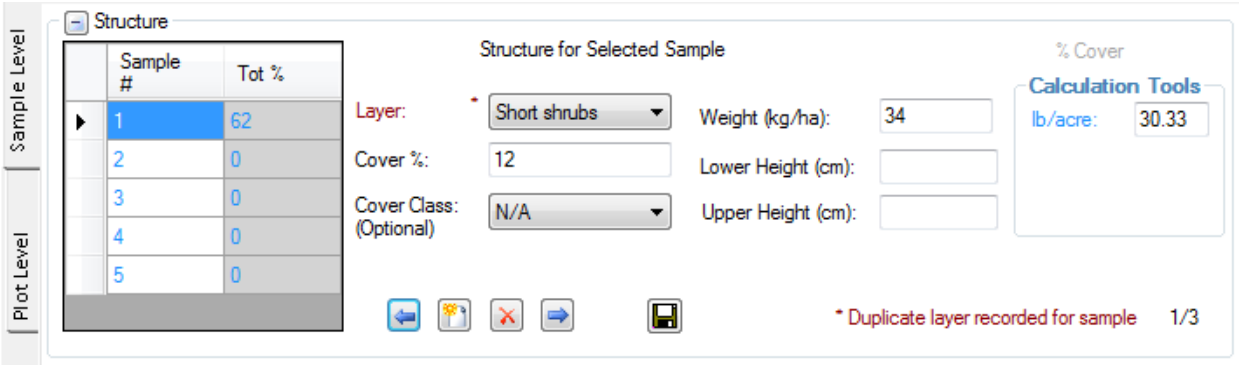


The Structure sub-form is configured with a pre-generated grid of all samples to be entered. This is determined by the Number of Samples defined for the Vegetation Sampling Task. A total percent field displays the sum of percent cover values entered within each sample as a cross-reference. The right hand portion of the form contains all of the layer input information and navigation tools for creating, searching and deleting layers. The number of layers for which data have been entered in a given sample is displayed at the bottom right corner of the form. Warning indicators will also inform the user if they define the same layer type more than once for a given sample.

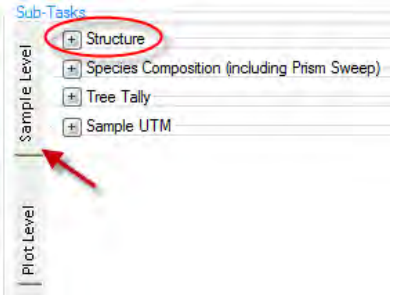
While working within a sample-level vegetation sampling task, it is also possible to generate plot-level averages of the sample-level data. After entering the data using the sample-level structure sub-form, select the plot-level structure sub-form. Press the **Summarize** button at the right side of the sub-form. This will calculate averages by summing the data for a given variable (e.g. % cover of the tree layer) and dividing by the number of samples. Averages will be displayed and saved as plot-level data.

*NOTE: Pressing **Summarize** will generate a new set of data records for the plot and any previously generated plot-level values will be erased in favour of the newly generated values.*

7.9.5.2 Input Form



7.9.5.3 Creating Sample Level: Structure Data

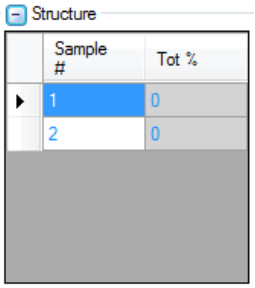


To enter Structure sub-form data at sample level, make sure that you have created the appropriate Vegetation Sampling Task and have set:

- Data Level to “Sample”
- Number of Samples to appropriate value for the task
- Saved the VST. Data level tabs for sample are unlocked once saved.

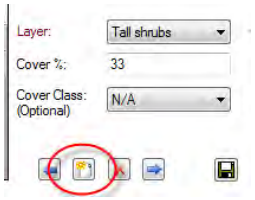
- Make sure the survey level tab is set to ***Sample Level*** (arrow in image on the right). A Dark line appears under the button when activated. Also, the Sample UTM sub-form appears only at Sample Level. By default, Sample Level is active.

- Activate the Structure sub-form by clicking the **+** sign next to Structure on the form (circle in image on the right). The sub-form will now display. If necessary, use the scroll control at the far right to make sure the entire sub-form is visible.



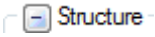
- A control grid in the Structure sub-form is used to manage sample data entry and displays the number of samples that are to be collected. This grid provides:
  - The current sample number (small triangle next to sample number represents the current sample being edited on the right-hand portion of the sub-form.
  - A Total Percent column displays the sum of the percent cover values of all layers defined within the sample.
  - Click on a particular sample to change the active sample being edited on the right-hand portion of the sub-form.
- With the appropriate sample number selected, the layer and percent cover data can be entered. Select the appropriate vegetation layer from the dropdown list (layer is the only mandatory field in this sub-form).
- Percent cover of the layer can be entered in Cover %. Changes to the Cover % data will automatically be reflected in the Tot % column of the control grid for the current sample.
- Cover-class of the layer can be entered by selecting a class on one of two scales: the original Daubenmire Scale (classes D1 to D6) or the modified Daubenmire scale (classes MD1 to MD7).
- Weight data can also be entered for the vegetation layer. Weight can be entered directly in kg/ha. Alternatively, a calculation tool is provided to allow the user to enter a value in lb/acre which then calculates the value in kg/ha. Only the kg/ha value is saved in the database.

- Upper or lower height limits of the layer can be entered (e.g. to separate tall shrub and short shrub layers.
- To create additional layers for the current sample, click the ***New*** icon in the Structure sub-form window located under the Cover Class field



NOTE: Do not use the tools located in the bottom left of the overall Vegetation Sampling Task form as those tools are for creating new tasks.

- Repeat the process for as many layers as are required. Click the ***Save*** icon in the sub-form window.
- Select the next sample number from the control grid by clicking on the next sample number in the list.
- Repeat entry of layer data for all required samples.
- Click ***Save*** and minimize the sub-form by clicking the **–** sign next to the sub-form.



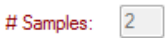
For a complete list of field definitions for the Vegetation Sampling Task (including Structure), see section 7.9.13.

7.9.6 Sample Level: Species Composition Sub-form

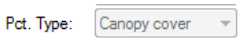
7.9.6.1 Overview

The Species Composition sub-form is used to enter species composition data collected by various methods.

The Species Composition (including Prism Sweep) sub-form is configured with a pre-generated grid of all samples to be entered. A total percent field displays the sum of percentage values that have been entered within each sample as a cross-reference. This is particularly useful for those percentage types that are expected to sum to 100 within a sample. The right hand portion of the form contains all of the layer input information and navigation tools for creating, searching and deleting layers. The number of species selected in a given sample is displayed at the bottom right corner of the form. Warning indicators will also inform the user if they select the same species more than once for a given sample.



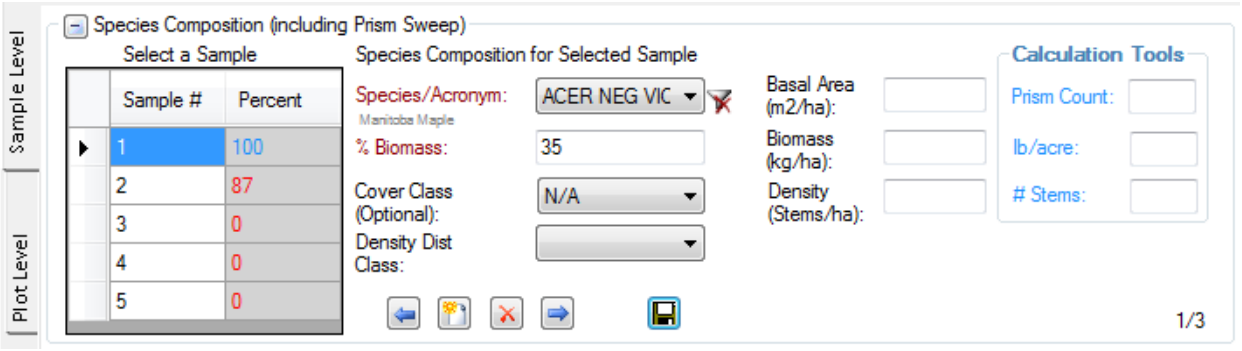
The ***Pct. Type*** field in the Vegetation Sampling Task main form allows the user to define the percentage type being captured (e.g. % biomass, canopy cover) or can designate that no percentage data are recorded ***N/A***.



While working within a sample-level vegetation sampling task, it is also possible to generate plot-level records representing averages of the sample-level data. After entering the data using the sample-level structure sub-form, select the plot-level structure sub-form. Press the **Summarize** button at the right side of the sub-form. This will calculate averages by summing the data for a given variable (e.g. % cover of *Populus tremuloides*) and dividing by the number of samples. Averages will be displayed and saved as plot-level data.

*NOTE: Pressing **Summarize** will generate a new set of data records for the plot and any previously generated plot-level values will be erased in favour of the newly generated values.*

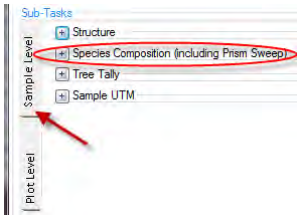
7.9.6.2 Input Form



7.9.6.3 Sample Level: Creating Species Composition (incl. Prism Sweep) Data

To enter Species Composition sub-form data at the sample level, make sure that you have created the appropriate Vegetation Sampling Task and have set:

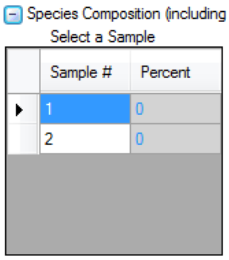
- Data Level to "***Sample***"
- Number of Samples to appropriate value for survey
- Saved the VST. Data level tabs for sample are unlocked once saved.



- Make sure the survey level tab is set to ***Sample Level*** (arrow in image on the right). A Dark line appears under the button when activated. Also, the Sample UTM sub-form appears only at Sample Level. By default, Sample

Level is active.

- Activate the Species Composition sub-form by clicking the **+** sign next to Species Composition on the form (circle in image on the right). The sub-form will now display. If necessary, use the scroll control at the far right to make sure the entire sub-form is visible.
- A control grid in the Species Composition sub-form is used to manage sample data entry and displays the number of samples that are to be collected. This grid provides:
  - The current sample number (small triangle next to sample number represents the current sample being edited on the right-hand portion of the sub-form.
  - A Percent column displays the sum of the percentages of all species that have been entered within the sample. If the Percent Type being collected requires the total percent to be equal to 100 for a single sample, the Percent value will display in red until the 100 percent value is reached.
  - Click on a particular sample to change the active sample being edited on the right-hand portion of the sub-form.



- With the appropriate sample number selected, the species and percentage or other data can be entered. Select the appropriate species from the dropdown list (Layer is the only mandatory field in this sub-form).

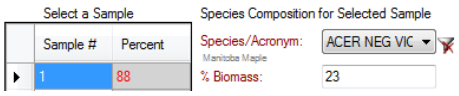
Species are selected from a drop-down list. Species are listed by acronym, with scientific name shown beside the acronym. It is possible to select an acronym by scrolling through the list, but the list is very long. It is faster to start typing the acronym. This will quickly display the acronym that you have typed as well as other species in the same part of the list. Click on one of the species shown in the drop-down to select a species. After a species is selected, the common name is also shown in grey text.

VegISS has the ability to provide additional functionality and detail to help a user easily select a species including:

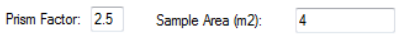
- Display of 2 character tree codes for common tree species

- Provide a filter tool to screen out unnecessary species (i.e. only show trees or shrubs). See section 7.9.6.4 for more information on the Species Filter Tool.

- If the abundance value for the species is a percentage, enter in the box below the species name. The label of this box is automatically changed to the Percent Type that was defined for the Vegetation Sampling Task. If a Percent Type was selected then entering a percentage value is mandatory. Changes to the percent data will automatically be reflected in the control grid for the current sample. When ***% Biomass*** is selected, the percentages for the sample must total ***100*** (otherwise total is displayed in red in the sample control grid).

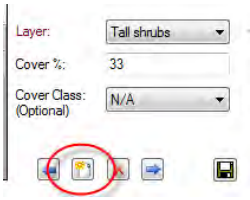


- Cover class can be entered by selecting a class from either the original Daubenmire scale (D1 to D6) or the Modified Daubenmire scale (MD1 to MD7).
- Density distribution class of the species can be entering by selecting a class from the standard 0-12 scale.
- Calculation tools are provided for Basal Area, Biomass and Density to simplify the entry process. Entries can be made in either field and the form will automatically calculate the opposite value. However, only one value is saved in the database: m^2/ha for Basal Area, kg/ha for Biomass, and stems/ha for Density. These calculation tools utilize other values found on the VST main form and function as follows:
  - Basal Area (m^2/ha) = Prism Count * Prism Factor
  - Biomass (kg/ha) = Biomass (lb/acre) *1.121
  - Density (stem/ha) = (# Stems * 10000) / Sample Area (m^2)



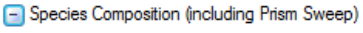
- Note that if the Prism Factor was not entered in the definition of the VST, basal area cannot be calculated. Similarly, if the sample area was not entered for the VST, density cannot be calculated.

- To select additional species for the current sample, click the ***New*** icon in the Species Composition sub-form located under the Cover Class field



NOTE: Do not use the tools located in the bottom left of the Vegetation Sampling Task form as those tools are for creating new tasks.

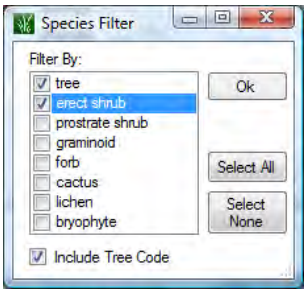
- Repeat the process for as many species as are required. Click the ***Save*** icon in the sub-form window.
- Select the next sample number from the control grid by clicking on the next sample number in the list.
- Repeat entry of layer data for all required samples.
- Click ***Save*** and minimize the sub-form by clicking the **–** sign next to the sub-form.



For a complete list of field definitions for the Vegetation Sampling Task (including species composition), see section 7.9.13.

7.9.6.4 Species/Plot Level – Species Filter

The Species Filter allows the user to apply a filter on the species list based on growth-forms. For example, if you are only entering data on trees, you can set the filter so that only tree species are shown in the drop-down species list.



Filters can be toggled to show any number of growth-forms. If nothing is selected the list will include all species.

- A filter icon with a red x indicates no filter is active
- A filter icon indicates a filter is active

Species filters for the Species Composition sub-form are remembered from session to session. You can change it at any time to meet individual needs.

To use the Species Filter:

- Click the ***Filter*** / icon next to the Species dropdown. The Species Filter dialog will open.
- Check the desired growth-forms to filter out the large species list. You can also click ***Select All*** or ***Select None*** to reset or clear select currently selected species categories.

NOTE: If all species categories are unchecked then all species will be included in the dropdown. You cannot select "no" categories. If no filter is applied, a red x appears on the filter icon. If filters are applied, then the filter icon has no x on it.

- If you would like to include the 2 character species code for tree species, check the ***Include Tree Code*** checkbox. You can then see the common codes that are used in forestry, such as bF or tA. This also allows the user to type species codes rather than locate by name in long lists (or to type the acronym value for a given tree species.
- Click ***Ok*** to apply filter settings and close the form
- Access the species dropdown to see revised/filtered species list.

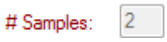
NOTE: If a species filter is applied, and a species is already entered that is not in the filtered list, that other species will automatically be added to the dropdown list.

7.9.7 Sample Level: Tree Tally Sub-form

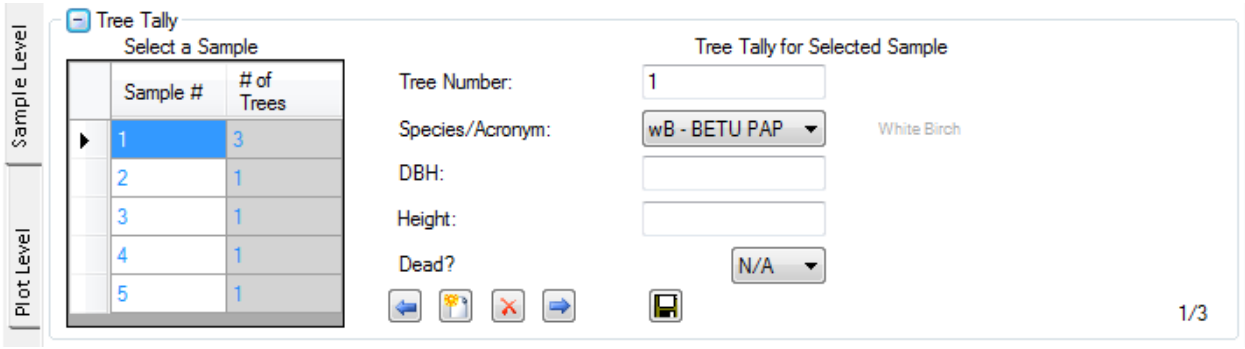
7.9.7.1 Overview

The Structure sub-form is loosely based on the Saskatchewan Parks Service Plots Survey Datasheet and provides the ability to enter tree-tally data for each sample specified in the main Vegetation Sampling Task (VST) form. Tree tally data consist of an inventory of all of the trees found in the sample, usually recording tree species and size information for each tree.

The Tree Tally sub-form is configured with a pre-generated grid of all samples to be entered. A ***# of Trees*** field displays the number of trees entered for each sample as a cross-reference. The right hand portion of the form contains all of the tree input information and navigation tools for creating, searching and deleting trees. The number of trees defined in a given sample is displayed at the bottom right corner of the form.



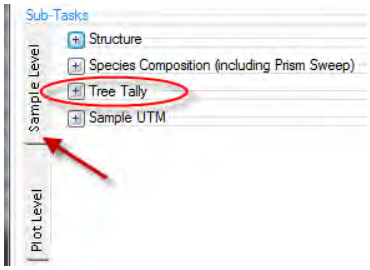
7.9.7.2 Input Form



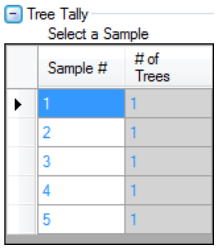
7.9.7.3 Creating Sample Level: Tree Tally Data

To enter Tree Tally data at the sample level, make sure that you have created the appropriate Vegetation Sampling Task and have set:

- Data Level to ***Sample***
- Number of Samples to appropriate value for survey
- Saved the VST. Data level tabs for sample are unlocked once saved.



- Make sure the survey level tab is set to ***Sample Level*** (arrow in image on the right). A Dark line appears under the button when activated. Also, the Sample UTM sub-form appears only at Sample Level. By default, Sample Level is active.
- Activate the Tree Tally sub-form by clicking the **+** sign next to Tree Tally on the form (circle in image on the right). The sub-form will now display. If necessary, use the scroll control at the far right to make sure the entire sub-form is visible.
- A control grid in the Tree Tally sub-form is used to manage sample data entry and displays the number of samples that are to be collected. This grid provides:
  - The current sample number (small triangle next to sample number represents the current sample being edited on the right-hand portion of the sub-form.
  - A Total Number of Trees column displays the total tree tally of all species defined within the sample.
  - Click on a particular sample to change the active sample being edited on the right-hand portion of the sub-form.

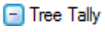


- With the appropriate sample number selected, the tree number, species and DBH information can be entered. Tree number will automatically generate within a sample and is not user changeable. Select the appropriate species from the dropdown list.

NOTE: No filter functions are provided as only tree species are displayed on this form. The Tree Tally sub-form is forestry-specific and only accepts tree codes. The 2 character species code (e.g. wB, tA) is included with the standard acronym and scientific name in the dropdown list.

- Enter other information including d.b.h. (cm), height (m), and live/dead status in the sub-form.
- To enter additional trees for the current sample, click the ***New*** icon in the Tree Tally sub-form window located under the "Dead?" field.

NOTE: Do not use the tools located in the bottom left of the Vegetation Sampling Task form as those tools are for creating new tasks.

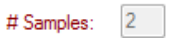
- Repeat the process for as many trees as are required. Click the ***Save*** icon in the sub-form window.
- Select the next sample number from the control grid by clicking on the next sample number in the list.
- Repeat entry of tree data for all required samples.
- Click ***Save*** and minimize the sub-form by clicking the **–** sign next to the sub-form. 

For a complete list of field definitions for the Vegetation Sampling Task (including Tree Tally), see section 7.9.13.

7.9.8 Sample Level: Sample UTM Sub-form

7.9.8.1 Overview

The Sample UTM sub-form provides the ability to enter UTM coordinate locations for samples specified in the main Vegetation Sampling Task (VST) form. This sub-form is used if the locations of the individual samples are recorded, as opposed to the location of the overall plot.



The Sample UTM sub-form is configured with a pre-generated grid of all samples to be entered. A total UTMS field displays the Number of UTM coordinate values entered within each sample as a cross-reference. The right hand portion of the form contains all of the UTM coordinate information and navigation tools for creating, searching and deleting layers. The number of coordinates defined in a given sample is displayed at the bottom right corner of the form.

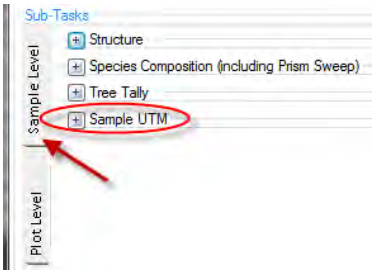
There is no option for summarizing sample-level UTM data to the plot level as the UTM data attached to the plot itself can provide this kind of information.

7.9.8.2 Input Form

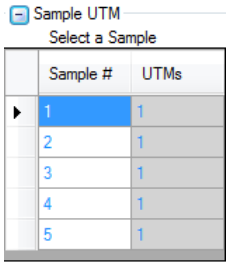
7.9.8.3 Creating Sample Level: Sample UTM Data

To enter Sample UTM data at sample level, make sure that you have created the appropriate Vegetation Sampling Task and have set:

- Data Level to ***Sample***
- Number of Samples to appropriate value for survey
- Saved the VST. Data level tabs for sample are unlocked once saved.



- Make sure the survey level tab is set to ***Sample Level*** (arrow in image on the right). A Dark line appears under the button when activated. Also, the Sample UTM sub-form appears only at Sample Level. By default, Sample Level is active.
- Activate the Sample UTM sub-form by clicking the **+** sign next to Sample UTM on the form (circle in image on the right). The sub-form will now display. If necessary, use the scroll control at the far right to make sure the entire sub-form is visible.
- A control grid in the Sample UTM sub-form is used to manage sample data entry and displays the number of samples that are to be collected. This grid provides:
  - The current sample number (small triangle next to sample number represents the current sample being edited on the right-hand portion of the sub-form.
  - A Total Number of UTMs column displays the total number of coordinates defined within the sample.



    - Click on a particular sample to change the active sample being edited on the right-hand portion of the sub-form.
- With the appropriate sample number selected, the coordinate location type and UTM coordinate data can be entered.
- Enter any other information in the sub-form that is applicable. Additional UTM entries will automatically be tallied in the UTMs column of the control grid for the current sample.
- To create additional UTM coordinates for the current sample, click the ***New*** icon in the Sample UTM sub-form window located under the "Northing" field.

NOTE: Do not use the tools located in the bottom left of the Vegetation Sampling Task form as those tools are for creating new tasks.

- Repeat the process for as many UTM coordinates as are required. Click the ***Save*** icon in the sub-form window.
- Select the next sample number from the control grid by clicking on the next sample number in the list.
- Repeat entry of tree data for all required samples.
- Click ***Save*** and minimize the sub-form by clicking the **–** sign next to the sub-form. Sample UTM

For a complete list of field definitions for the Vegetation Sampling Task (including Sample UTM), see section 7.9.13.

7.9.9 Plot Level – Structure Sub-form

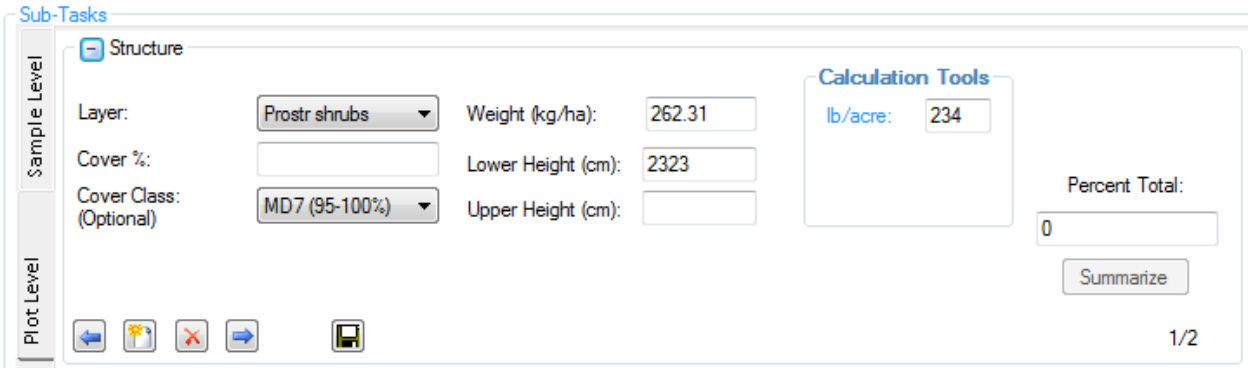
7.9.9.1 Overview

The Structure sub-form is used to enter vegetation structure data at the plot level. Vegetation structure data consists of vegetation layers (e.g. trees, shrubs, herbs, bryophytes, litter, and bare soil) with abundance values for each.

The Structure sub-form contains all of the layer input information and navigation tools for creating, searching and deleting layers. The number of layers defined for the plot is displayed at the bottom right corner of the form. Warning indicators will also inform the user if they define the same layer type more than once for the plot.

There is a Sample-Level version of the Structure sub-form for entry of sample level. You cannot enter Sample-Level data when Data Level is set to Plot.

7.9.9.2 Input Form

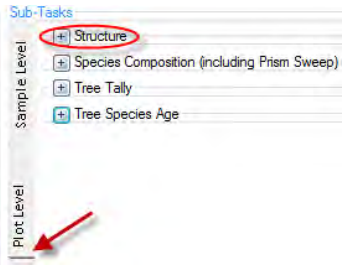


7.9.9.3 Creating Plot Level: Structure Data

To enter Structure data at the plot level, make sure that you have created the appropriate Vegetation Sampling Task and have set:

- Data Level to ***Sample*** or ***Plot***
- Saved the VST.

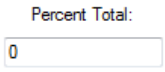
- Make sure the survey level tab is set to ***Plot Level*** (arrow in image on the right). A Dark line appears under the button when activated. Also, the Tree Species Age sub-form appears only at Plot Level. By default, Plot Level is active when Data Level is set to Plot.



*NOTE: When Data Level set to **Plot**, Sample Level sub-forms are disabled (greyed out) and are not accessible.*

- Activate the Structure sub-form by clicking the **+** sign next to Structure on the form (circle in image on the right). The sub-form will now display. If necessary, use the scroll control at the far right to make sure the entire sub-form is visible.
- Click the ***New*** icon in the sub-form window (under Cover Class) to create a new empty record.
- Select the appropriate Layer from the dropdown list (Layer is the only mandatory field in this sub-form).

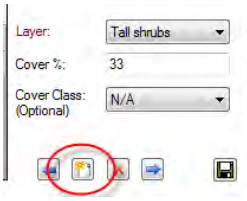
- Percent cover of the layer can be entered in Cover %.. Changes to the Cover % data will automatically be reflected Percent Total Field on the right-hand side of the form.



Cover-class of the layer can be entered by selecting a class on one of two scales: the original Daubenmire scale (classes D1 to D6) or the Modified Daubenmire scale (classes MD1 to MD7).

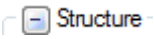
- Weight data can also be entered for the vegetation layer. Weight can be entered directly in kg/ha. Alternatively, a calculation tool is provided to allow the user to enter a value in lb/acre rather than by kg/ha. Only the kg/ha value is saved in the database.

- The upper or lower height limits of the layer can be entered (e.g. to differentiate a tall shrub layer from a short shrub layer.
- To create additional layers, click the ***New*** icon in the Structure sub-form window located under the Cover Class field



NOTE: Do not use the tools located in the bottom left of the Vegetation Sampling Task form as those tools are for creating new tasks.

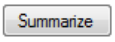
- Repeat the process for as many layers as are required. Click the ***Save*** icon in the sub-form window.
- Minimize the sub-form by clicking the **–** sign next to the sub-form.



For a complete list of field definitions for the Vegetation Sampling Task (including Structure), see section 7.9.13.

7.9.9.4 Summarizing Sample Level Data to the Plot Level

A ***Summarize*** button can be used to generate plot-level summary data based on existing sample-level data. Sample level data will be summarized by layer and generated as one or more layer entries at the plot level. However, this is done within a sample-level vegetation sampling task (see Section 7.9.5.1). If the Data Level is set as ***Plot*** then the ***Summarize*** button will be greyed out.



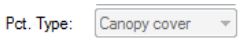
7.9.10 Plot Level – Species Composition Sub-form (incl. Prism Sweep)

7.9.10.1 Overview

The Species Composition sub-form is used to enter plot-level species composition data collected by various methods.

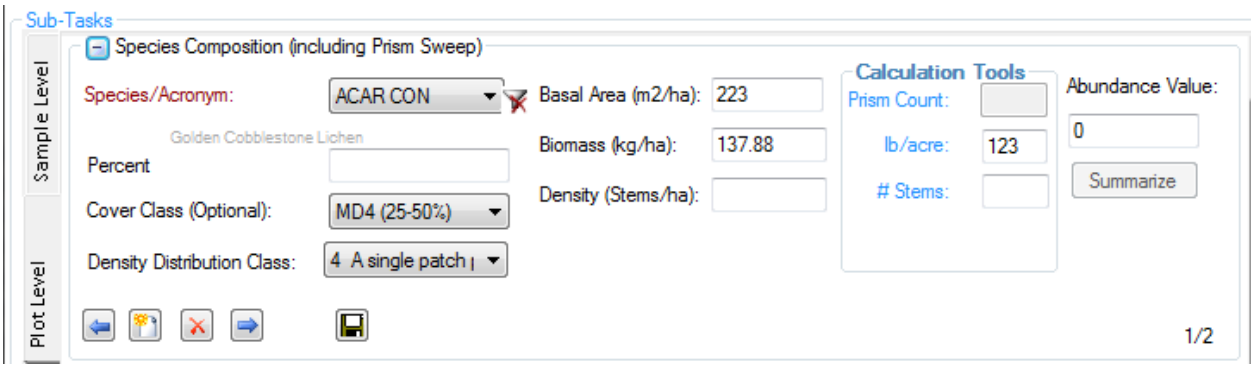
The Species Composition (including Prism Sweep) sub-form contains all of the layer input information and navigation tools for creating, searching and deleting layers. The number of species for which data are entered in a plot is displayed at the bottom right corner of the form. Warning indicators will also inform the user if they select the same species more than once for a plot.

The ***Pct. Type*** field in the Vegetation Sampling Task main form allows the user to define the percentage type being captured (e.g. Canopy Cover or % Biomass) or can designate that no percentage data are recorded (N/A).



There is a Sample-Level version of the Species Composition sub-form for Sample-level data. You cannot enter Sample-Level data when Data Level is set to Plot.

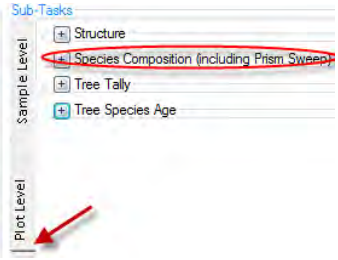
7.9.10.2 Input Form



7.9.10.3 Plot Level: Creating Species Composition (incl. Prism Sweep) Data

To enter Species Composition data at the plot level, make sure that you have created the appropriate Vegetation Sampling Task and have set:

- Data Level to ***Plot***
- Make sure the survey level tab is set to ***Plot Level*** (arrow in image on the right). A Dark line appears under the button when activated. Also, the Tree Species Age sub-form appears only at Plot Level. By default, Plot Level is active when the Data Level is set to Plot.



*NOTE: When the Data Level set to **Plot**, Sample Level sub-forms are disabled (greyed out) and are not accessible.*

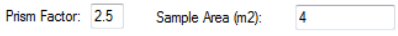
- Activate the Species Composition sub-form by clicking the + sign next to Species Composition on the form (circle in image on the right). The sub-form will now display. If necessary, use the scroll control at the far right to make sure the entire sub-form is visible.

- Click the ***Add*** icon in the sub-form window (under Density Distribution Class) to create a new empty record.
- Species are selected from a drop-down list. Species are listed by acronym, with scientific name shown beside the acronym. It is possible to select an acronym by scrolling through the list, but the list is very long. It is faster to start typing the acronym. This will quickly display the acronym that you have types as well as other species in the same part of the list. Click on one of the species shown in the drop-down to select a species. After the species is selected, the common name is also shown in grey text.

VegISS has the ability to provide additional functionality and detail to help the user easily select a species including:

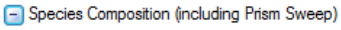
  - Display of 2 character tree codes for common tree species 

  - Provide a filter tool to allow screen out unnecessary species (i.e. only show trees or shrubs).

- If the abundance value for the species is a percentage, enter in the box below the species name. The label of this box is automatically changed to the Percent Type that was defined in the Vegetation Sampling Task. If a Percent Type was selected then entering a percentage value is mandatory. Changes to the percent value will automatically be reflected in the Abundance Value box at the right side of the window.
- Cover class of the species can be entered by selecting a class from either the original Daubenmire scale (D1 to D6) or the Modified Daubenmire scale (MD1 to MD7).
- Density Distribution Class of the species can be entered by selecting a class from the standard 0-12 scale.
- Calculation tools are provided for Basal Area, Biomass and Density to simplify the entry process. Entries can be made in either field and the form will automatically calculate the opposite value. However, only one value is saved in the database: m^2/ha for Basal Area, kg/ha for Biomass, and stems/ha for Density. These calculation tools utilize other values found on the VST main form and function as follows:
  - Basal Area (m^2/ha) = Prism Count * Prism Factor 

  - Biomass (kg/ha) = Biomass (lb/acre) *1.121
  - Density (stem/ha) = (# Stems * 10000) / Sample Area (m^2)
- Note that if the Prism Factor was not entered in the definition of the VST, basal area cannot be calculated. Similarly, if the plot area was not entered in the definition of the plot, density cannot be calculated.
- To enter additional species click the ***New*** icon in the Structure sub-form window located under the Cover Class field

NOTE: Do not use the tools located in the bottom left of the Vegetation Sampling Task form as those tools are for creating new tasks.

- Repeat the process for as many species as are required. Click the ***Save*** icon in the sub-form window.
- Minimize the sub-form by clicking the **–** sign next to the sub-form. 

For a complete list of field definitions for the Vegetation Sampling Task (including species composition), see section 7.9.13.

7.9.10.4 Summarizing Sample Level Data to the Plot Level

A ***Summarize*** button can be used to generate plot-level summary data based on existing sample-level data. Sample level data will be summarized by species and generated as one or more layer entries at the plot level. However, this is done within a sample-level vegetation sampling task (see Section 7.9.6.1). If the Data Level is set as ***Plot*** then the ***Summarize*** icon will be greyed out. 

7.9.11 Plot Level: Tree Tally Sub-form

7.9.11.1 Overview

The Tree Tally sub-form is loosely based on the Saskatchewan Parks Service Plots Survey Datasheet and provides the ability to enter tree-tally data. Tree-tally data consist of an inventory of all of the trees found in the plot, usually recording tree species and size information for each tree.

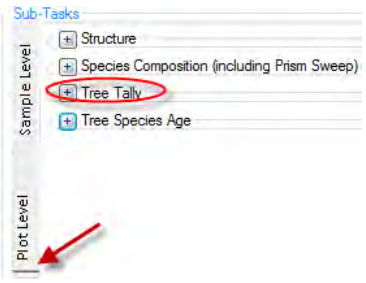
The Tree Tally sub-form contains all of the tree input information and navigation tools for creating, searching and deleting trees.

7.9.11.2 Input Form

7.9.11.3 Creating Plot Level: Tree Tally Data

To enter Tree Tally data at plot level, make sure that you have created the appropriate Vegetation Sampling Task and have set:

- Data Level to ***Plot*** or ***Sample***



- Make sure the survey level tab is set to ***Plot Level*** (arrow in image on the right). A Dark line appears under the button when activated. Also, the Tree Species Age sub-form appears only at the Plot Level. Activate the Tree Tally sub-form by clicking the **+** sign next to Tree Tally on the form (circle in image on the right). The sub-form will now display. If necessary, use the scroll control at the far right to make sure the entire sub-form is visible.
- Click the ***New*** icon in the sub-form window (under the Dead? field) to create a new empty record.
- Select the appropriate species from the dropdown list.

NOTE: No filter functions are provided as only tree species are displayed on this form. The Tree Tally sub-form is forestry-specific and only accepts tree codes. The 2 character species code is included in the dropdown list.

- Enter other information including d.b.h. (cm), height (m), and live/dead status in the sub-form.
- To enter additional trees for the current sample, click the ***New*** icon in the Tree Tally sub-form window located under the "Dead?" field.

NOTE: Do not use the tools located in the bottom left of the Vegetation Sampling Task form as those tools are for creating new tasks.

- Repeat the process for as many trees as are required. Click the ***Save*** icon in the sub-form window.
- Minimize the sub-form by clicking the **–** sign next to the sub-form. Tree Tally

For a complete list of field definitions for the Vegetation Sampling Task (including Tree Tally), see section 7.9.13.

7.9.12 Plot Level: Tree Species Age Sub-form

7.9.12.1 Overview

The Tree Species Age sub-form is loosely based on the Saskatchewan Parks Service Plots Survey Datasheet and provides the ability to enter tree age data.

The Tree Species Age sub-form contains all of the tree input information and navigation tools for creating, searching and deleting trees.

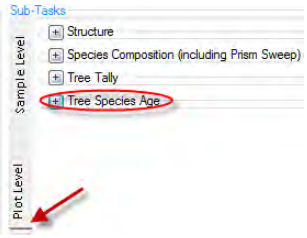
There is no Sample-Level version of the Tree Species Age Sub-form.

7.9.12.2 Input Form

7.9.12.3 Creating Plot Level: Tree Species Age Data

To enter Tree Species Age data at plot level, make sure that you have created the appropriate Vegetation Sampling Task and have set:

- Data Level to ***Plot***

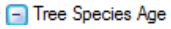


- Make sure the survey level tab is set to ***Plot Level*** (arrow in image on the right). A Dark line appears under the button when activated. Also, the Tree Species Age sub-form appears only at Plot Level. Activate the Tree Species Age sub-form by clicking the **+** sign next to Tree Species Age on the form (circle in image on the right). The sub-form will now display. If necessary, use the scroll control at the far right to make sure the entire sub-form is visible.
- Click the ***New*** icon in the sub-form window (under the Rotten? field) to create a new empty record.
- Now the species, age and DBH information can be entered. Select the appropriate species from the dropdown list.

NOTE: No filter functions are provided as only tree species are displayed. The Tree Tally sub-form is forestry-specific and only accepts tree codes. The 2 character species code is included in the dropdown list.

- Enter any other information in the sub-form that is applicable.
- To create additional species entries, click the ***New*** icon in the Tree Tally sub-form window located under the "Rotten?" field.

NOTE: Do not use the tools located in the bottom left of the Vegetation Sampling Task form as those tools are for creating new tasks.

- Repeat the process for as many trees as are required. Click the ***Save*** icon in the sub-form window.
- Minimize the sub-form by clicking the **–** sign next to the sub-form. 

For a complete list of field definitions for the Vegetation Sampling Task (including Tree Species Age), see section 7.9.13.

7.9.13 Vegetation Sampling Task (VST) Data Fields

Field	Input Type	Mandatory	Comment
VST Main Form			
TaskID	Automatic	Yes	Unique identifier of the sampling task displayed in form header
Assessment Method	Automatic/Dropdown	No	Pre-loaded to the linked assessment method if there is one, or can be set to None
Purpose	Dropdown	No	Purpose for the survey
Surveyor Name (F)	Keyboard	No	Surveyor first name
Surveyor Name (L)	Keyboard	No	Surveyor last name
Survey Date	Dropdown	Yes	Date the survey was undertaken
Method Year	Automatic/Keypad	No	Publication date of the linked health assessment, if any.
Entered Date	Dropdown	No	Date the form was filled out
QA/QC Complete?	Checkbox	No	Audit performed?
Applicable Layers	Dropdown	No	Vegetation layers targeted by the task
Vascular Authority	Dropdown	No	Vascular Authority – automatically set to Harms 2006 at present
Vascular Taxon Resolution	Dropdown	No	Extent to which vascular plant species were separated into species
Non-vascular Authority	Keyboard	No	Publication used as taxonomic authority for non-vascular plants
Non-vascular Taxon. Resolution	Dropdown	No	Extent to which non-vascular plants were separated into species
Data Level	Dropdown	Yes	Defines the task data level (Sample or Plot level)
# Samples	Keyboard	Yes (cond)	Number of samples for Sample Level task (greyed out if Plot Level)
Measurement Method	Dropdown	No	Task measurement method
Sample Dimensions – Dimension Type	Dimensions sub-form Dropdown	Yes	Sample Dimension type
Sample Dimensions – Measurement	Dimensions sub-form Dropdown	No	Sample dimension measurement (cm)
Pct. Type	Dropdown	No	Defines percentage type collected with species composition data Can be set to N/A if non-percentage data were collected.
Prism Factor	Keyboard	No	Prism factor used to calculate tree basal area
Sample Area	Keyboard	No	Sample Area in m^2 used to calculate Density (based on stem counts) for Species Composition sub-form (greyed out if Plot level)
Comments	Comment	No	General Task comments
Structure Sub-form - Sample and Plot Levels			
Layer	Dropdown	Yes	Vegetation Layer
Cover%	Keyboard	No	Percent cover for the layer
Cover Class	Dropdown	No	Cover class code
Weight	Keyboard	No	Layer weight in kg/ha. Value can be calculated using lb/acre calculation tool in the sub-form
Lower Height	Keyboard	No	Lower height of the layer (cm)

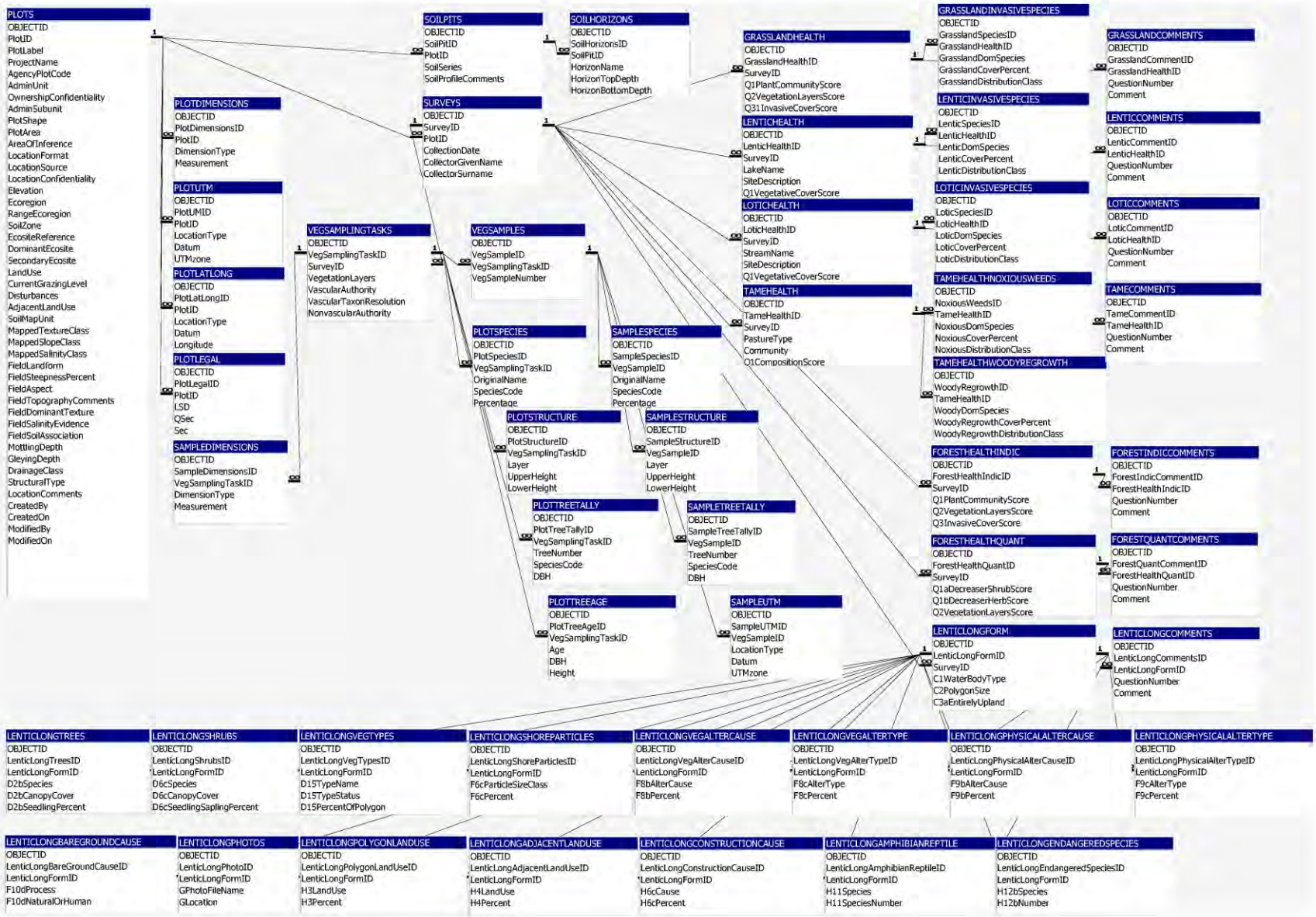
Field	Input Type	Mandatory	Comment
Upper Height	Keyboard	No	Upper Height of the layer (cm)
Species Composition (including Prism Sweep) Sub-form– Sample and Plot Levels			
Species/Acronym	Dropdown	Yes	Species acronym (filter tool affects available choices in dropdown)
{Percent}	Keyboard	Yes (cond)	Percent value. Changeable label based on Pct. Type in VST main form. If Percent Type is set to N/A, field is not mandatory. If a Percent Type is selected in the VST definition, field is mandatory.
Cover Class	Dropdown	No	Cover class code on either the original Daubenmire scale (D1-D6) or the modified Daubenmire scale (MD1-MD7)
Density Dist Class	Dropdown	No	Density Distribution Class code on the standard 0-12 scale used in the range health assessment manuals.
Basal Area	Keyboard	No	Basal Area (m2/ha). Value can be calculated from the number of stems recorded in a prism sweep using Prism Count Calculation tool (provided the Prism Factor is defined in the VST main form)
Biomass	Keyboard	No	Biomass (kg/ha). Value can be calculated from lb/ac using the lb/acre Calculation tool
Density	Keyboard	No	Density (Stems/ha). Value can be calculated from the number of stems using the # Stems Calculation tool (provided the relevant area was defined: plot area for plot-level data, or sample area for sample-level data).
Tree Tally Sub-form - Sample and Plot Levels			
Tree Number	Auto-generated	Yes	Sample tree number. Auto-generated value
Species/Acronym	Dropdown	Yes	Species Acronym (filtered for tree species only). 2 character species code provided in listing
DBH	Keyboard	No	Diameter breast height measurement (cm)
Height	Keyboard	No	Tree height (m)
Dead?	Dropdown	No	Identifies if tree is dead or not (Y/N)
Sample UTM – Sample Level Only			
Type	Dropdown	No	Coordinate location type
Datum	Dropdown	No	Spatial datum for coordinate data
Zone	Keyboard	No	UTM zone number
Easting	Keyboard	No	UTM easting value
Northing	Keyboard	No	UTM northing value
Tree Species Age – Plot Level Only			
Species/Acronym	Dropdown	Yes	Species Acronym (filtered for tree species only). 2 character species code provided in listing
Age	Keyboard	No	Tree age in years

Field	Input Type	Mandatory	Comment
DBH	Keyboard	No	Diameter breast height measurement (cm)
Height	Keyboard	No	Tree height (m)
Rotten?	Dropdown	No	Identifies if tree is rotten or not (Y/N)

8 Appendices

8.1 VegISS Database Diagram – Entity Relationships
8.2 VegISS Data Model – Table definitions
8.3 VegISS Coding List – By Validation Table
8.4 Vegetation Species Codes - Alphabetical

8.1 VegISS Database Design



8.2 VegISS Data Model

Table	Column	Type	Size	Validation Table	Description
FORESTHEALTHINDIC	OBJECTID	Long Integer	4		
FORESTHEALTHINDIC	ForestHealthIndicID	Text	36		Unique identifier (GUID) for each forest health indicator assessment. Prefix "FI"
FORESTHEALTHINDIC	SurveyID	Text	36		Shows relationship to SURVEYS.
FORESTHEALTHINDIC	Q1PlantCommunityScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHINDIC	Q2VegetationLayersScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHINDIC	Q3InvasiveCoverScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHINDIC	Q41SoilErosionScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHINDIC	Q42BareSoilScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHINDIC	Q5LFHdepthScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHINDIC	ReferenceCommunity	Text	12		Code of the reference community to which the surveyed community was compared (e.g. MG-LM-A)
FORESTHEALTHINDIC	PlantCommunityMethod	Text	3	VT_FHIPlantCommunityMethod	Method used to determine the plant community score
FORESTHEALTHINDIC	InvasiveCoverPercent	Single	4		Percentage; as documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHQUANT	OBJECTID	Long Integer	4		
FORESTHEALTHQUANT	ForestHealthQUantID	Text	36		Unique identifier (GUID) for each forest health quantitative assessment.
FORESTHEALTHQUANT	SurveyID	Text	36		Shows relationship to SURVEYS.
FORESTHEALTHQUANT	Q1aDecreaserShrubScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHQUANT	Q1bDecreaserHerbScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHQUANT	Q2VegetationLayersScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHQUANT	Q3InvasiveScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).

Table	Column	Type	Size	Validation Table	Description
FORESTHEALTHQUANT	Q41SoilErosionScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHQUANT	Q42BareSoilScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHQUANT	Q5LFHdepthScore	Single	4		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHQUANT	DecreaserShrubFrequency	Single	4		Percentage; as documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHQUANT	DecreaserHerbFrequency	Single	4		Percentage; as documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHQUANT	InvasiveFrequency	Single	4		Percentage; as documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHQUANT	CoverPolePercentHidden	Single	4		Percentage; as documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
FORESTHEALTHQUANT	ReferenceCommunity	Text	12		Code of the reference community to which the surveyed community was compared (e.g. MG-LM-A)
FORESTINDICCOMMENTS	OBJECTID	Long Integer	4		
FORESTINDICCOMMENTS	ForestIndicCommentID	Text	36		Unique identifier (GUID) for each comment within a forest health indicator assessment
FORESTINDICCOMMENTS	ForestHealthIndicID	Text	36		Shows relationship to FORESTHEALTHINDIC
FORESTINDICCOMMENTS	QuestionNumber	Text	10		Number of the question within the forest health indicator method to which the comment relates
FORESTINDICCOMMENTS	Comment	Memo	-		Text of comment
FORESTQUANTCOMMENTS	OBJECTID	Long Integer	4		
FORESTQUANTCOMMENTS	ForestQuantCommentID	Text	36		Unique identifier (GUID) for each comment within a forest health quantitative assessment
FORESTQUANTCOMMENTS	ForestHealthQuantID	Text	36		Shows relationship to FORESTHEALTHQUANT
FORESTQUANTCOMMENTS	QuestionNumber	Text	10		Number of the question within the forest health quantitative method to which the comment relates
FORESTQUANTCOMMENTS	Comment	Memo	-		Text of comment
GRASSLANDCOMMENTS	OBJECTID	Long Integer	4		Question comments for Grasslands Health form
GRASSLANDCOMMENTS	GrasslandCommentID	Text	36		Unique identifier (GUID) for each comment within a grassland health assessment
GRASSLANDCOMMENTS	GrasslandHealthID	Text	36		Shows relationship to GRASSLANDHEALTH
GRASSLANDCOMMENTS	QuestionNumber	Text	10		Number of the question within the grassland method to which the comment relates
GRASSLANDCOMMENTS	Comment	Memo	-		Text of comment
GRASSLANDHEALTH	OBJECTID	Long Integer	4		
GRASSLANDHEALTH	GrasslandHealthID	Text	36		Unique identifier (GUID) for each grassland health assessment.

Table	Column	Type	Size	Validation Table	Description
GRASSLANDHEALTH	SurveyID	Text	36		Shows relationship to SURVEYS.
GRASSLANDHEALTH	Q1PlantCommunityScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
GRASSLANDHEALTH	Q2VegetationLayersScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
GRASSLANDHEALTH	Q31InvasiveCoverScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
GRASSLANDHEALTH	Q32InvasiveDistributionScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
GRASSLANDHEALTH	Q41SoilErosionScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
GRASSLANDHEALTH	Q42BareSoilScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
GRASSLANDHEALTH	Q5LitterScore	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
GRASSLANDHEALTH	ReferenceCommunity	Text	12		Code of the reference community to which the surveyed community was compared (e.g. MG-LM-A)
GRASSLANDHEALTH	PlantCommunityMethod	Text	3	VT_GrassPlantCommMethod	Method used to determine the plant community score
GRASSLANDHEALTH	InvasiveCoverPercent	Single	5		Percentage; as documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
GRASSLANDHEALTH	InvasiveDistributionClass	Integer	2		As documented in "Rangeland Health Assessment: Native Grassland and Forest" (Saskatchewan Prairie Conservation Action Plan).
GRASSLANDHEALTH	Q3InvasiveSpeciesText	Text	50		List of invasive species. This field is no longer used and is replaced by GRASSLANDINVASIVESPECIES
GRASSLANDHEALTH	VegetationHeight	Single	4		Vegetation Height
GRASSLANDHEALTH	ObservedUtilization	Single	4		Observed utlization as a percentage
GRASSLANDINVASIVESPECIES	OBJECTID	Long Integer	4		
GRASSLANDINVASIVESPECIES	GrasslandSpeciesID	Text	36		Unique identifier (GUID) for each invasive species in a Grassland health assessment
GRASSLANDINVASIVESPECIES	GrasslandHealthID	Text	36		Shows relationship to GRASSLANDHEALTH
GRASSLANDINVASIVESPECIES	GrasslandDomSpecies	Text	12	VT_Species	Dominant Species
GRASSLANDINVASIVESPECIES	GrasslandCoverPercent	Single	4		Percent cover of invasive species
GRASSLANDINVASIVESPECIES	GrasslandDistributionClass	Integer	2	VT_DensityDistributionClass	Density distribution class of invasive species
LENTICCOMMENTS	OBJECTID	Long Integer	4		
LENTICCOMMENTS	LenticCommentID	Text	36		Unique identifier (GUID) for each comment within a lentic riparian health assessment
LENTICCOMMENTS	LenticHealthID	Text	36		Shows relationship to LENTICHEALTH
LENTICCOMMENTS	QuestionNumber	Single	4		Number of the question within the lentic health method to which the comment relates

Table	Column	Type	Size	Validation Table	Description
LENTICCOMMENTS	Comment	Memo	-		Text of comment
LENTICHEALTH	OBJECTID	Long Integer	4		
LENTICHEALTH	LenticHealthID	Text	36		Unique identifier (GUID) for each Lentic riparian health assessment
LENTICHEALTH	SurveyID	Text	36		Shows relationship to SURVEYS
LENTICHEALTH	LakeName	Text	20		Name of wetland, slough, or lake, if available
LENTICHEALTH	SiteDescription	Memo	-		General description of the riparian zone at this site and the placement of the assessment polygon
LENTICHEALTH	Q1VegetativeCoverScore	Integer	2		As documented in "Lakes, Sloughs and Wetlands: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LENTICHEALTH	Q21InvasiveCoverScore	Integer	2		As documented in "Lakes, Sloughs and Wetlands: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LENTICHEALTH	Q22InvasiveDistributionScore	Integer	2		As documented in "Lakes, Sloughs and Wetlands: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LENTICHEALTH	Q3DisturbanceIncreaserScore	Integer	2		As documented in "Lakes, Sloughs and Wetlands: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LENTICHEALTH	Q4WoodyRegenScore	Integer	2		As documented in "Lakes, Sloughs and Wetlands: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LENTICHEALTH	Q5WoodyUtilizationScore	Integer	2		As documented in "Lakes, Sloughs and Wetlands: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LENTICHEALTH	Q6VegetationAlterationScore	Integer	2		As documented in "Lakes, Sloughs and Wetlands: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LENTICHEALTH	Q7PhysicalAlterationScore	Integer	2		As documented in "Lakes, Sloughs and Wetlands: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LENTICHEALTH	Q8BareGroundScore	Integer	2		As documented in "Lakes, Sloughs and Wetlands: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LENTICHEALTH	Q9WaterAdditionRemovalScore	Integer	2		As documented in "Lakes, Sloughs and Wetlands: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LENTICINVASIVESPECIES	OBJECTID	Long Integer	4		
LENTICINVASIVESPECIES	LenticSpeciesID	Text	36		Unique identifier (GUID) for eachi invasive species

Table	Column	Type	Size	Validation Table	Description
					listed a lentic health assessment
LENTICINVASIVESPECIES	LenticHealthID	Text	36		Shows relationship to LENTICHEALTH
LENTICINVASIVESPECIES	LenticDomSpecies	Text	12	VT_Species	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICINVASIVESPECIES	LenticCoverPercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICINVASIVESPECIES	LenticDistributionClass	Integer	2	VT_DensityDistributionClass	Density distribution class of invasive species
LENTICLONGADJACENTLANDUSE	OBJECTID	Long Integer	4		
LENTICLONGADJACENTLANDUSE	LenticLongAdjacentLandUseID	Text	36		Unique identifier (GUID) for each land use adjacent to the polygon covered by a lentic long-form assessment
LENTICLONGADJACENTLANDUSE	LenticLongFormID	Text	36		Shows relationship to LENTICLONGFORM
LENTICLONGADJACENTLANDUSE	H4LandUse	Text	3		As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGADJACENTLANDUSE	H4Percent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGAMPHIBIANREPTILE	OBJECTID	Long Integer	4		
LENTICLONGAMPHIBIANREPTILE	LenticLongAmphibianReptileID	Text	36		Unique identifier (GUID) for each species of amphibian or reptile within a lentic long-form assessment
LENTICLONGAMPHIBIANREPTILE	LenticLongFormID	Text	36		Shows relationship to LENTICLONGFORM
LENTICLONGAMPHIBIANREPTILE	H11Species	Text	25		As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGAMPHIBIANREPTILE	H11SpeciesNumber	Integer	2		As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGAMPHIBIANREPTILE	H11SpeciesLocation	Text	50		As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGBAREGROUNDCAUSE	OBJECTID	Long Integer	4		
LENTICLONGBAREGROUNDCAUSE	LenticLongBareGroundCauseID	Text	36		Unique identifier (GUID) for each bare ground cause within a lentic long-form assessment
LENTICLONGBAREGROUNDCAUSE	LenticLongFormID	Text	36		Shows relationship to LENTICLONGFORM
LENTICLONGBAREGROUNDCAUSE	F10dProcess	Text	3	VT_LentLongProcessType	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGBAREGROUNDCAUSE	F10dNaturalOrHuman	Text	1	VT_LentLongProcessClass	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGBAREGROUNDCAUSE	F10dProcessPercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGCOMMENTS	OBJECTID	Long Integer	4		

Table	Column	Type	Size	Validation Table	Description
LENTICLONGCOMMENTS	LenticLongCommentsID	Text	36		Unique identifier (GUID) for each comment within a lentic long-form riparian health assessment
LENTICLONGCOMMENTS	LenticLongFormID	Text	36		Shows relationship to LENTICLONGFORM
LENTICLONGCOMMENTS	QuestionNumber	Text	10		Code of the question within the lentic long-form method to which the comment relates
LENTICLONGCOMMENTS	Comment	Memo	-		Text of comment
LENTICLONGCONSTRUCTIONCAUSE	OBJECTID	Long Integer	4		
LENTICLONGCONSTRUCTIONCAUSE	LenticLongConstructionCauseID	Text	36		Unique identifier (GUID) for each construction cause within a lentic long-form assessment
LENTICLONGCONSTRUCTIONCAUSE	LenticLongFormID	Text	36		Shows relationship to LENTICLONGFORM
LENTICLONGCONSTRUCTIONCAUSE	H6cCause	Text	3	VT_LentLongConstructCause	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGCONSTRUCTIONCAUSE	H6cPercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGENDANGEREDSPECIES	OBJECTID	Long Integer	4		
LENTICLONGENDANGEREDSPECIES	LenticLongEndangeredSpeciesID	Text	36		Unique identifier (GUID) for each endangered species within a lentic long-form assessment
LENTICLONGENDANGEREDSPECIES	LenticLongFormID	Text	36		Shows relationship to LENTICLONGFORM
LENTICLONGENDANGEREDSPECIES	H12bSpecies	Text	25		As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGENDANGEREDSPECIES	H12bNumber	Integer	2		As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	OBJECTID	Long Integer	4		**Not Currently Used**
LENTICLONGFORM	LenticLongFormID	Text	36		Unique identifier (GUID) for lentic long-form assessment
LENTICLONGFORM	SurveyID	Text	36		Shows relationship to SURVEYS
LENTICLONGFORM	C1WaterBodyType	Text	3	VT_LentLongWaterbodyType	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	C2PolygonSize	Single	4		Hectares; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	C3aEntirelyUpland	Text	1	VT_TrueFalse	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	C3bEntirelyFunctionalWetland	Text	1	VT_TrueFalse	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	C3cFunctionalWetlandArea	Single	4		Hectares; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	C3dPercentOfPolygon	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	C4ShorelinePresent	Text	1	VT_TrueFalseNc	As documented in "Alberta Lentic Wetland Inventory

Table	Column	Type	Size	Validation Table	Description
					User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	C5PolygonLength	Single	4		Kilometres; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	C6RepresentedLength	Single	4		Kilometres; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	C7aPolygonWidth	Single	4		Metres; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	C7bRiparianWidthMinimum	Single	4		Metres; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	C7bRiparianWidthMaximum	Single	4		Metres; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	C8VegetationRating	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	C8SoilHydrologyRating	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	C8OverallRating	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D1aWetlandPrevalenceIndex	Integer	2		As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D1bVegStructuralDiversity	Text	3	VT_LentLongStrucDiversity	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D2aTreePresence	Text	1	VT_TrueFalse	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D6aShrubPresence	Text	1	VT_TrueFalse	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D6bPreferredSpeciesPotential	Text	1	VT_TrueFalseNc	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D7GraminoidPresence	Text	1	VT_TrueFalse	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D8ForbPresence	Text	1	VT_TrueFalse	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D10TreeCover	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D10ShrubCover	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)

Table	Column	Type	Size	Validation Table	Description
LENTICLONGFORM	D10GraminoidCover	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D10ForbCover	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D11WoodyCover	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D12TotalCover	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D13aInvasivePresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D13cTotalInvasiveCover	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D13cTotalInvasiveDensityDistribution	Integer	2		As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D14aUndesirableHerbPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D14bUndesirableHerbCover	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	D16PolygonTrend	Text	3	VT_LentLongPolygonTrend	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	E1WaterbodyNumber	Long Integer	4		As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	E2aWaterQualityDataAvailability	Text	1	VT_TrueFalseNAUnk	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	E2bWaterQualityDataReference	Text	50		As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F1WaterSource	Text	50		As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F2ClosedBasin	Text	1	VT_TrueFalseNcNa	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F3WaterChemistry	Text	50		As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F4aArtificialChangeOfLevel	Text	3	VT_LentLongArtificalChange	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F5aOverflowStructurePresence	Text	1	VT_TrueFalseNcNa	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource

Table	Column	Type	Size	Validation Table	Description
					Development)
LENTICLONGFORM	F5bOverflowStructureType	Text	3	VT_LentLongOverflowStructure	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F6aShorelinePresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F6bShorelineSubstrateVisible	Text	1	VT_TrueFalseNc	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F7PercentBindingRoots	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F8aVegetationAlter	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F9aPhysicalAlterPercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F10aBareGroundPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F10bBareGroundPercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F10cBareGroundPercentNatural	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F10cBareGroundPercentHuman	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F11RockCover	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F11MossCover	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F11LitterCover	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F11WoodCover	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F11HumanImpervCover	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F11OtherCover	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F12aPlugHummockPresent	Text	1	VT_TrueFalseNc	Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F12bPugHummockPercent	Single	4		Percentage; as documented in "Alberta Lentic

Table	Column	Type	Size	Validation Table	Description
					Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F13aSideDrainageDegradation	Text	1	VT_TrueFalseNcNa	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F13bSideDrainageHuman	Text	1	VT_TrueFalseNcNa	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F13cSideDrainageNatural	Text	1	VT_TrueFalseNcNa	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F14WaterQualitySufficient	Text	1	VT_TrueFalseNcNaUnk	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F15StandingWaterPresence	Text	1	VT_TrueFalseNcNa	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	F16ChemicalEffects	Text	1	VT_TrueFalseNcNa	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	H1AnimalUsePercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	H2AdjacentUpland	Text	50		As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	H5PercentAccessibleToLivestock	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	H6aConstructionPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	H6bConstructionPercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	H7aWaterfowlNestBroodPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	H8aFisheryPresence	Text	1	VT_TrueFalseUnk	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	H8bFisheryType	Text	3	VT_LentLongFisheryType	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	H8cFishTypes	Memo	-		As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	H8dNumberFish	Text	5	VT_LentLongFishObserved	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	H8eFisheryPotential	Text	1	VT_TrueFalseUnk	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)

Table	Column	Type	Size	Validation Table	Description
LENTICLONGFORM	H9aAmphibianPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	H9bFrogs	Integer	2		
LENTICLONGFORM	H9bToads	Integer	2		
LENTICLONGFORM	H9bSalamanders	Integer	2		
LENTICLONGFORM	H10aReptilePresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	H10bSnakes	Integer	2		
LENTICLONGFORM	H10bTurtles	Integer	2		
LENTICLONGFORM	H10bLizards	Integer	2		
LENTICLONGFORM	H12aThreatenEndangeredSppPres	Text	1	VT_TrueFalseNc	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGFORM	H12cThreatenEndangeredSppLoc	Memo	-		As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGPHOTOS	OBJECTID	Long Integer	4		
LENTICLONGPHOTOS	LenticLongPhotoID	Text	36		Unique identifier (GUID) for each photograph within a lentic long-form assessment
LENTICLONGPHOTOS	LenticLongFormID	Text	36		Shows relationship to LENTICLONGFORM
LENTICLONGPHOTOS	GPhotoFileName	Text	100		Name of digital file containing the photograph
LENTICLONGPHOTOS	GLocation	Text	255		Location of the photograph
LENTICLONGPHOTOS	GDescription	Memo	-		Description of what is shown by the photograph
LENTICLONGPHYSICALALTERCAUSE	OBJECTID	Long Integer	4		
LENTICLONGPHYSICALALTERCAUSE	LenticLongPhysicalAlterCauseID	Text	36		Unique identifier (GUID) for each vegetation alteration cause within a lentic long-form assessment
LENTICLONGPHYSICALALTERCAUSE	LenticLongFormID	Text	36		Shows relationship to LENTICLONGFORM
LENTICLONGPHYSICALALTERCAUSE	F9bAlterCause	Text	3	VT_LentLongPhysAlterCause	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGPHYSICALALTERCAUSE	F9bPercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGPHYSICALALTERTYPE	OBJECTID	Long Integer	4		
LENTICLONGPHYSICALALTERTYPE	LenticLongPhysicalAlterTypeID	Text	36		Unique identifier (GUID) for physical alteration type within a lentic long-form assessment
LENTICLONGPHYSICALALTERTYPE	LenticLongFormID	Text	36		Shows relationship to LENTICLONGFORM
LENTICLONGPHYSICALALTERTYPE	F9cAlterType	Text	3	VT_LentLongPhysAlterType	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGPHYSICALALTERTYPE	F9cPercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGPOLYGONLANDUSE	OBJECTID	Long Integer	4		

Table	Column	Type	Size	Validation Table	Description
LENTICLONGPOLYGONLANDUSE	LenticLongPolygonLandUseID	Text	36		Unique identifier (GUID) for each land use within the polygon covered by a lentic long-form assessment
LENTICLONGPOLYGONLANDUSE	LenticLongFormID	Text	36		Shows relationship to LENTICLONGFORM
LENTICLONGPOLYGONLANDUSE	H3LandUse	Text	3	VT_LentLongLanduse	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGPOLYGONLANDUSE	H3Percent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGSHOREPARTICLES	OBJECTID	Long Integer	4		
LENTICLONGSHOREPARTICLES	LenticLongShoreParticlesID	Text	36		Unique identifier (GUID) for each shore particle size class within a lentic long-form assessment
LENTICLONGSHOREPARTICLES	LenticLongFormID	Text	36		Shows relationship to LENTICLONGFORM
LENTICLONGSHOREPARTICLES	F6cParticleSizeClass	Text	3	VT_LentLongParticleSize	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGSHOREPARTICLES	F6cPercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGSHRUBS	OBJECTID	Long Integer	4		
LENTICLONGSHRUBS	LenticLongShrubsID	Text	36		Unique identifier (GUID) for each shrub species within a lentic long-form assessment
LENTICLONGSHRUBS	LenticLongFormID	Text	36		Shows relationship to LENTICLONGFORM
LENTICLONGSHRUBS	D6cSpecies	Text	12	VT_Species	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGSHRUBS	D6cCanopyCover	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGSHRUBS	D6cSeedlingSaplingPercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGSHRUBS	D6cSeedlingSaplingUtilization	Text	1	VT_LentLongSaplingUtilization	Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGSHRUBS	D6cMaturePercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGSHRUBS	D6cMatureUtilization	Text	1	VT_LentLongSaplingUtilization	Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGSHRUBS	D6cDecadentDeadPercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGSHRUBS	D6cDecadentDeadUtilization	Text	1	VT_LentLongSaplingUtilization	Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGSHRUBS	D6dShrubGrowthForm	Text	1	VT_LentLongShrubGrowth	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)

Table	Column	Type	Size	Validation Table	Description
LENTICLONGTREES	OBJECTID	Long Integer	4		
LENTICLONGTREES	LenticLongTreesID	Text	36		Unique identifier (GUID) for each tree species within a lentic long-form assessment
LENTICLONGTREES	LenticLongFormID	Text	36		Shows relationship to LENTICLONGFORM
LENTICLONGTREES	D2bSpecies	Text	12	VT_Species	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGTREES	D2bCanopyCover	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGTREES	D2bSeedlingPercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGTREES	D2bSeedlingDecadencePercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGTREES	D2bSaplingPercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGTREES	D2bSaplingDecadencePercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGTREES	D2bPolePercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGTREES	D2bPoleDecadencePercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGTREES	D2bMaturePercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGTREES	D2bMatureDecadencePercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGTREES	D2bDeadPercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGTREES	D3RegenerationCategory	Integer	2	VT_LentLongRegenCategory	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGTREES	D4AgeDistribution	Integer	2	VT_LentLongAgeDistribution	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGTREES	D5SeedlingSaplingUtilization	Text	1	VT_LentLongSaplingUtilization	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGVEGALTERCAUSE	OBJECTID	Long Integer	4		
LENTICLONGVEGALTERCAUSE	LenticLongVegAlterCauseID	Text	36		Unique identifier (GUID) for each vegetation alteration cause within a lentic long-form assessment

Table	Column	Type	Size	Validation Table	Description
LENTICLONGVEGALTERCAUSE	LenticLongFormID	Text	36		Shows relationship to LENTICLONGFORM
LENTICLONGVEGALTERCAUSE	F8bAlterCause	Text	3	VT_LentLongVegAlterCause	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGVEGALTERCAUSE	F8bPercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGVEGALTERTYPE	OBJECTID	Long Integer	4		
LENTICLONGVEGALTERTYPE	LenticLongVegAlterTypeID	Text	36		Unique identifier (GUID) for each vegetation alteration type within a lentic long-form assessment
LENTICLONGVEGALTERTYPE	LenticLongFormID	Text	36		Shows relationship to LENTICLONGFORM
LENTICLONGVEGALTERTYPE	F8cAlterType	Text	3	VT_LentLongVegAlterType	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGVEGALTERTYPE	F8cPercent	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGVEGTYPES	OBJECTID	Long Integer	4		
LENTICLONGVEGTYPES	LenticLongVegTypesID	Text	36		Unique identifier (GUID) for each vegetation type within a lentic long-form assessment
LENTICLONGVEGTYPES	LenticLongFormID	Text	36		Shows relationship to LENTICLONGFORM
LENTICLONGVEGTYPES	D15TypeName	Text	50		As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGVEGTYPES	D15TypeStatus	Text	2	VT_LentLongVegStatus	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGVEGTYPES	D15PercentOfPolygon	Single	4		Percentage; as documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LENTICLONGVEGTYPES	D15SuccessionalStage	Text	1	VT_LentLongSuccessStage	As documented in "Alberta Lentic Wetland Inventory User Manual" (Alberta Sustainable Resource Development)
LOTICCOMMENTS	OBJECTID	Long Integer	4		
LOTICCOMMENTS	LoticCommentID	Text	36		Unique identifier (GUID) for each comment within a lotic riparian health assessment
LOTICCOMMENTS	LoticHealthID	Text	36		Shows relationship to LOTICHEALTH
LOTICCOMMENTS	QuestionNumber	Single	4		Number of the question within the lotic health method to which the comment relates
LOTICCOMMENTS	Comment	Memo	-		Text of comment
LOTICHEALTH	OBJECTID	Long Integer	4		
LOTICHEALTH	LoticHealthID	Text	36		Unique identifier (GUID) for each lotic riparian health assessment.
LOTICHEALTH	SurveyID	Text	36		Shows relationship to SURVEYS.
LOTICHEALTH	StreamName	Text	50		Name of stream or river, if available
LOTICHEALTH	SiteDescription	Memo	-		General description of the riparian zone at this site and placement of the assessment polygon

Table	Column	Type	Size	Validation Table	Description
LOTICHEALTH	Q1VegetativeCoverScore	Integer	2		As documented in "Streams and Small Rivers: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LOTICHEALTH	Q21InvasiveCoverScore	Integer	2		As documented in "Streams and Small Rivers: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LOTICHEALTH	Q22InvasiveDistributionScore	Integer	2		As documented in "Streams and Small Rivers: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LOTICHEALTH	Q3DisturbIncreaserScore	Integer	2		As documented in "Streams and Small Rivers: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LOTICHEALTH	Q4WoodyRegenScore	Integer	2		As documented in "Streams and Small Rivers: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LOTICHEALTH	Q5WoodyUtilizationScore	Integer	2		As documented in "Streams and Small Rivers: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LOTICHEALTH	Q6DecadentWoodScore	Integer	2		As documented in "Streams and Small Rivers: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LOTICHEALTH	Q7StreambankRootMassScore	Integer	2		As documented in "Streams and Small Rivers: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LOTICHEALTH	Q8BareGroundScore	Integer	2		As documented in "Streams and Small Rivers: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LOTICHEALTH	Q9StreambankStrucAltScore	Integer	2		As documented in "Streams and Small Rivers: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LOTICHEALTH	Q10StreambankLateralCutScore	Integer	2		As documented in "Streams and Small Rivers: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LOTICHEALTH	Q11ReachStrucAltScore	Integer	2		As documented in "Streams and Small Rivers: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LOTICHEALTH	Q12ChannelIncisementScore	Integer	2		As documented in "Streams and Small Rivers: Riparian Health Assessment" (Saskatchewan Prairie Conservation Action Plan); enter -999 if question was not applicable.
LOTICHEALTH	ReachNumber	Long	4		Reach number/label

Table	Column	Type	Size	Validation Table	Description
		Integer			
LOTICINVASIVESPECIES	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICINVASIVESPECIES	LoticSpeciesID	Text	36		Unique number (GUID) for each linvasive species in a lotic health assessment
LOTICINVASIVESPECIES	LoticHealthID	Text	36		Shows relationship to LOTICHEALTH
LOTICINVASIVESPECIES	LoticDomSpecies	Text	12	VT_Species	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICINVASIVESPECIES	LoticCoverPercent	Single	4		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICINVASIVESPECIES	LoticDistributionClass	Integer	2	VT_DensityDistributionClass	Density distribution class of invasive species
LOTICLONGADJACENTLANDUSE	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGADJACENTLANDUSE	LoticLongAdjacentLandUseID	Text	36		Unique number (GUID) for each land use adjacent to the polygon covered by a lotic long-form assessment
LOTICLONGADJACENTLANDUSE	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGADJACENTLANDUSE	H4LandUse	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGADJACENTLANDUSE	H4Percent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGAMPHIBIANREPTILE	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGAMPHIBIANREPTILE	LoticLongAmphibianReptileID	Text	36		Unique identifier (GUID) for each amphibian or reptile species within a lotic long-form assessment
LOTICLONGAMPHIBIANREPTILE	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGAMPHIBIANREPTILE	H11bH12bType	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGAMPHIBIANREPTILE	H11bH12bTypeNumber	Integer	2		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGAMPHIBIANREPTILE	H13Species	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGAMPHIBIANREPTILE	H13SpeciesNumber	Integer	2		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGBANKALTERCAUSE	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGBANKALTERCAUSE	LoticLongBankAlterCauseID	Text	36		Unique identifier (GUID) for each bank alteration cause within a lotic long-form assessment
LOTICLONGBANKALTERCAUSE	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGBANKALTERCAUSE	F6cAlterCause	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGBANKALTERCAUSE	F6cPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta

Table	Column	Type	Size	Validation Table	Description
					Sustainable Resource Development"
LOTICLONGBANKALTERTYPE	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGBANKALTERTYPE	LoticLongBankAlterTypeID	Text	36		Unique identifier (GUID) for each bank alteration type within a lotic long-form assessment
LOTICLONGBANKALTERTYPE	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGBANKALTERTYPE	F6dAlterType	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGBANKALTERTYPE	F6dPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGBANKPARTICLES	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGBANKPARTICLES	LoticLongBankParticlesID	Text	36		Unique identifier (GUID) for each bank particle size class within a lotic long-form assessment
LOTICLONGBANKPARTICLES	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGBANKPARTICLES	F3bParticleSizeClass	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGBANKPARTICLES	F3bPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGBAREGROUNDCAUSE	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGBAREGROUNDCAUSE	LoticLongBareGroundCauseID	Text	36		Unique identifier (GUID) for each bare ground cause within a lotic long-form assessment
LOTICLONGBAREGROUNDCAUSE	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGBAREGROUNDCAUSE	F15dProcess	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGBAREGROUNDCAUSE	F15dNaturalOrHuman	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGBAREGROUNDCAUSE	F15dProcessPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGBOTTOMPARTICLES	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGBOTTOMPARTICLES	LoticLongBottomParticlesID	Text	36		Unique identifier (GUID) for each bottom particle size class within a lotic long-form assessment
LOTICLONGBOTTOMPARTICLES	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGBOTTOMPARTICLES	F2bParticleSizeClass	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGBOTTOMPARTICLES	F2bPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGCOMMENTS	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGCOMMENTS	LoticLongCommentID	Text	36		Unique identifier (GUID) for each comment within a lotic long-form riparian health assessment

Table	Column	Type	Size	Validation Table	Description
LOTICLONGCOMMENTS	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGCOMMENTS	QuestionNumber	Text	5		Code of the question within the lotic long-form method to which the comment relates
LOTICLONGCOMMENTS	Comment	Memo	-		Text of comment
LOTICLONGCONSTRUCTIONCAUSE	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGCONSTRUCTIONCAUSE	LoticLongConstructionCauseID	Text	36		Unique identifier (GUID) for each construction cause within a lotic long-form assessment
LOTICLONGCONSTRUCTIONCAUSE	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGCONSTRUCTIONCAUSE	H7cCause	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGCONSTRUCTIONCAUSE	H7cPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGENDANGEREDSPECIES	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGENDANGEREDSPECIES	LoticLongEndangeredSpeciesID	Text	36		Unique identifier (GUID) for each endangered species within a lotic long-form assessment
LOTICLONGENDANGEREDSPECIES	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGENDANGEREDSPECIES	H16bH16cSpecies	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGENDANGEREDSPECIES	H16bH16cNumber	Integer	2		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	OBJECTID	Long Integer	4		
LOTICLONGFORM	LoticLongFormID	Text	36		Unique identifier (GUID) for each lotic long-form assessment
LOTICLONGFORM	SurveyID	Text	36		Shows relationship to SURVEYS
LOTICLONGFORM	C1WaterBodyType	Text	3		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	C2PolygonSize	Single	4		Hectares; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	C3aEntirelyUpland	Text	1	VT_TrueFalse	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	C3bEntirelyFunctionalWetland	Text	1	VT_TrueFalse	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	C3cFuctionalWetlandArea	Single	4		Hectares; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	C3dPercentOfPolygon	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	C4ChannelPresent	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"

Table	Column	Type	Size	Validation Table	Description
LOTICLONGFORM	C5ChannelLength	Single	4		Kilometres; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	C6RiverDistance	Single	4		Kilometres; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	C7aPolygonWidth	Single	4		Metres; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	C7bRiparianWIdthMinimum	Single	4		Metres; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	C7bRiparianWidthMaximum	Single	4		Metres; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	C8VegetationRating	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	C8SoilHydrologyRating	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	C8OverallRating	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	D1aWetlandPrevalenceIndex	Integer	2		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	D1bVegStructuralDiversity	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	D2aTreePresence	Text	1	VT_TrueFalse	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	D6aShrubPresence	Text	1	VT_TrueFalse	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	D6bPreferredSpeciesPotential	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	D7GraminoidPresence	Text	1	VT_TrueFalse	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	D8ForbPresence	Text	1	VT_TrueFalse	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	D11WoodyCover	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	D12TotalCover	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	D13aInvasivePresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource

Table	Column	Type	Size	Validation Table	Description
					Development"
LOTICLONGFORM	D13cTotalInvasiveCover	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	D13cTotalInvasiveDensityDistr	Integer	2		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	D14aUndesireableHerbPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	D14bUndesirableHerbCover	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	D16PolygonTrend	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	E1WaterbodyNumber	Long Integer	4		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	E2aWaterQualityDataAvail	Text	1	VT_TrueFalseUnk	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	E2bWaterQualityDataReference	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F1StreamChannelPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F2aChannelBottomVisible	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F3aChannelBankVisible	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F4aLateralCuttingPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F4bLateralCuttingPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F5BankUnstablePercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F6aBankAlterationPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F6bBankAlterationPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F7PercentBindingRoots	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F8PercentFineMaterial	Integer	2		Percentage; as documented in "Alberta Lotic

Table	Column	Type	Size	Validation Table	Description
					Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F9ChannelWidth	Single	4		Metres; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F10StreamGradient	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F11aDowncuttingPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F11bDowncuttingPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F12aHeadcuttingPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F12bHeadcutNumber	Long Integer	4		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F12cHeadcutHeight	Single	4		Metres; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F12dHeadcutLocation	Memo	-		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F13aChannelBraidingPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F13bChannelBraidingPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F14ChannelIncisementClass	Text	1		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F15aBareGroundPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F15bBareGroundPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F15cBareGroundPercentNatural	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F17PointBarRevegetation	Text	1	VT_TrueFalseNcNa	Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F18WoodySource	Text	1	VT_TrueFalseNcNa	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F19aNonBankAlterationPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"

Table	Column	Type	Size	Validation Table	Description
LOTICLONGFORM	F19bNonBankAlterationPercent	Integer	2		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F20aPugHummockPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F20bPugHummockInsBankPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F20bPugHummockOutsBankPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F21aSeepSpringPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F21bSeepSpringNumber	Integer	2		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F21cNumberSeepsHummocked	Integer	2		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F21dSeepSpringLocation	Memo	-		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F22aPooledChannelPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F22bPercentPooled	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F22cPoolPersistence	Text	1		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F22dPoolLocation	Memo	-		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F23aBeaverPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F23bBeaverActivity	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F23dNumberDamsLodges	Integer	2		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F23eNumberStemsChewed	Integer	2		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	F23fNumberBeavers	Integer	2		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H1AnimalUsePercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta

Table	Column	Type	Size	Validation Table	Description
					Sustainable Resource Development"
LOTICLONGFORM	H2AdjacentUpland	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H5aMapRepresentsSinuosity	Text	1	VT_TrueFalseNcNa	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H5bFieldSinuosity	Integer	2		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H5bMapSinuosity	Integer	2		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H6PercentAccessibleLargeAnimal	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H7aConstructionPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H7bConstructionPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H7eChannelModStability	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H7fChannelModificationEffects	Memo	-		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H9aWaterfowlNestBroodPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H10aFisheryPresence	Text	1	VT_TrueFalseUnk	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H10bFisheryType	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H10cFishTypes	Memo	-		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H10dNumberFish	Integer	2		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H10eFisheryPotential	Text	1	VT_TrueFalseUnk	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H11aAmphibianPresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H12aReptilePresence	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H14aThreatEndangeredSppPres	Text	1	VT_TrueFalseNc	As documented in "Alberta Lotic Wetland Inventory

Table	Column	Type	Size	Validation Table	Description
					User Manual" (Alberta Sustainable Resource Development"
LOTICLONGFORM	H14dThreatEndangeredSppLoc	Memo			As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGNONBANKALTERCAUSE	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGNONBANKALTERCAUSE	LoticLongNonbankAlterCauseID	Text	36		Unique identifier (GUID) for each non-bank alteration cause within a lotic long-form assessment
LOTICLONGNONBANKALTERCAUSE	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGNONBANKALTERCAUSE	F19cAlterCause	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGNONBANKALTERCAUSE	F19cPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGNONBANKALTERTYPE	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGNONBANKALTERTYPE	LoticLongNonbankAlterTypeID	Text	36		Unique identifier (GUID) for each non-bank alteration type within a lotic long-form assessment
LOTICLONGNONBANKALTERTYPE	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGNONBANKALTERTYPE	F19dAlterType	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGNONBANKALTERTYPE	F19dPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGPHOTOS	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGPHOTOS	LoticLongPhotoID	Text	36		Unique identifier (GUID) for each photograph within a lotic long-form assessment
LOTICLONGPHOTOS	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGPHOTOS	GPhotoFileName	Text	100		Name of the digital file containing the photograph
LOTICLONGPHOTOS	GLocation	Text	100		Location of the photograph
LOTICLONGPHOTOS	GDescription	Memo	-		Description of what is shown by the photograph
LOTICLONGPOLYGONLANDUSE	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGPOLYGONLANDUSE	LoticLongPolygonLandUseID	Text	36		Unique identifier (GUID) for each land use within the polygon covered by a lotic long-form assessment
LOTICLONGPOLYGONLANDUSE	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGPOLYGONLANDUSE	H3LandUse	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGPOLYGONLANDUSE	H3Percent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGROSGEN	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGROSGEN	LoticLongRosgenID	Text	36		Unique identifier (GUID) for each Rosgen type within a lotic long-form assessment
LOTICLONGROSGEN	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM

Table	Column	Type	Size	Validation Table	Description
LOTICLONGROSGEN	H8RosgenType	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGROSGEN	H8Percent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGSHRUBS	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGSHRUBS	LoticLongShrubsID	Text	36		Unique identifier (GUID) for each shrub species within a lotic long-form assessment
LOTICLONGSHRUBS	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGSHRUBS	D6cSpecies	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGSHRUBS	D6cCanopyCover	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGSHRUBS	D6cSeedlingSaplingPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGSHRUBS	D6cSeedlingSaplingUtilization	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGSHRUBS	D6cMaturePercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGSHRUBS	D6cMatureUtilization	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGSHRUBS	D6cDecadentDeadPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGSHRUBS	D6cDecadentDeadUtilization	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGSHRUBS	D6dShrubGrowthForm	Text	1		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGTREES	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGTREES	LoticLongTreesID	Text	36		Unique identifier (GUID) for each tree species within a lotic long-form assessment
LOTICLONGTREES	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGTREES	D2bSpecies	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGTREES	D2bCanopyCover	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGTREES	D2bSeedlingPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"

Table	Column	Type	Size	Validation Table	Description
LOTICLONGTREES	D2bSeedlingDecadencePercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGTREES	D2bSaplingPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGTREES	D2bSaplingDecadencePercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGTREES	D2bPolePercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGTREES	D2bPoleDecadencePercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGTREES	D2bMaturePercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGTREES	D2bMatureDecadencePercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGTREES	D2bDeadPercent	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGTREES	D3RegenerationCategory	Integer	2		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGTREES	D4AgeDistribution	Integer	2		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGTREES	D5SeedlingSaplingUtilization	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGVEGTYPES	OBJECTID	Long Integer	4		**Table not currently in VegISS database**
LOTICLONGVEGTYPES	LoticLongVegTypesID	Text	36		Unique number (GUID) for each vegetation type within a lotic long-form assessment
LOTICLONGVEGTYPES	LoticLongFormID	Text	36		Shows relationship to LOTICLONGFORM
LOTICLONGVEGTYPES	D15TypeName	Text	25		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGVEGTYPES	D15TypeStatus	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGVEGTYPES	D15PercentOfPolygon	Integer	2		Percentage; as documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
LOTICLONGVEGTYPES	D15SuccessionalStage	Text	10		As documented in "Alberta Lotic Wetland Inventory User Manual" (Alberta Sustainable Resource Development"
PLOTDIMENSIONS	OBJECTID	Long Integer	4		

Table	Column	Type	Size	Validation Table	Description
PLOTDIMENSIONS	PlotDimensionsID	Text	36		Unique identifier (GUID) for each plot-level dimension measurement
PLOTDIMENSIONS	PlotID	Text	36		Shows relationship to PLOTS
PLOTDIMENSIONS	DimensionType	Text	2	VT_DimensionType	Type of dimensions provided for plot. Defines general shape of plot
PLOTDIMENSIONS	Measurement	Single	4		length (m) of the specified dimension
PLOTLATLONG	OBJECTID	Long Integer	4		
PLOTLATLONG	PlotLatLongID	Text	36		Unique identifier (GUID) for each plot-level latitude-longitude location
PLOTLATLONG	PlotID	Text	36		Shows relationship to PLOTS
PLOTLATLONG	LocationType	Text	2	VT_PlotLocationType	Type of location:
PLOTLATLONG	Datum	Text	5	VT_Datum	Horizontal datum used for locations
PLOTLATLONG	Longitude	Double	8		Longitude (decimal degrees)
PLOTLATLONG	Latitude	Double	8		Latitude (decimal degrees)
PLOTLEGAL	OBJECTID	Long Integer	4		
PLOTLEGAL	PlotLegalID	Text	36		Unique identifier (GUID) for each plot-level legal location
PLOTLEGAL	PlotID	Text	36		Shows relationship to PLOTS
PLOTLEGAL	LSD	Integer	2		Number of legal subdivision.
PLOTLEGAL	QSec	Text	2	VT_QuarterSection	Name of quarter-section (NW, SW, NE, SE).
PLOTLEGAL	Sec	Integer	2		Number of section.
PLOTLEGAL	Twp	Text	3		Text labelling the township
PLOTLEGAL	Rge	Text	3		Text labelling the range
PLOTLEGAL	Mer	Integer	2		Number of meridian (e.g. "3" for locations west of the Third Meridian).
PLOTS	OBJECTID	Long Integer	4		Permanent attributes of plots, such as identifiers, plot types and site properties
PLOTS	PlotID	Text	36		Unique identifier (GUID) for each plot. Note that a plot should be a stand-alone entity intended to represent an area of land; entities such as sample quadrats that are intended for averaging with other quadrats should not be referred to as plots, but rather as samples within a plot. Also note that a plot should usually be on a single ecosite and a single broad vegetation type. For example, grasslands and forests should usually be in separate plots. However, there may be exceptions, such as the complex of herbaceous and woody types included in a single riparian assessment polygon.
PLOTS	PlotLabel	Text	50		User-defined project label, number or other reference
PLOTS	ProjectName	Text	50	PROJECTMASTER	Project Name to group plots
PLOTS	AgencyPlotCode	Text	25	VT_PlotAgency	Code used by the agency to identify the plot.
PLOTS	AdminUnit	Text	50		Land ownership or administrative unit, e.g. Smith Ranch, Rudy-Rosedale Pasture.
PLOTS	OwnershipConfidentiality	Integer	2	VT_PlotConfidentiality	Level of confidentiality of land ownership information::
PLOTS	AdminSubunit	Text	50		Name of grazing field or other spatial subunit within an administrative unit.

Table	Column	Type	Size	Validation Table	Description
PLOTS	PlotShape	Text	1	VT_PlotShape	Shape of the plot, which is required for understanding the dimensions and location data:
PLOTS	PlotArea	Double	8		Area (m^2) of plot.
PLOTS	AreaOfInference	Double	8		Area (ha) for which the plot is considered to be representative; for example, a range condition transect may be considered to be representative of a 500 ha grazing field, or there could be several transects within this field representing areas of different ecosite, vegetation type, or grazing intensity. In this case, the area of inference for a transect would be restricted to the area that it represents (i.e. the portion of the field with the same ecosite, vegetation type, or grazing intensity).
PLOTS	LocationFormat	Text	3	VT_PlotLocationFormat	Format of location description (i.e. UTM, lat/long, legal)
PLOTS	LocationSource	Text	3	VT_PlotLocationSource	Source of location information:
PLOTS	LocationConfidentiality	Integer	2	VT_PlotConfidentiality	Level of confidentiality of location information:
PLOTS	Elevation	Integer	2		Elevation above sea level (m); elevations recorded in feet should be converted to metres prior to entry.
PLOTS	Ecoregion	Text	3	VT_PlotEcoregion	Ecoregion according to Ecological Framework for Canada:
PLOTS	RangeEcoregion	Text	4	VT_PlotRangeEcoregion	Range ecoregion according to Thorpe (2007)
PLOTS	SoilZone	Text	2	VT_PlotSoilZone	Soil zone according to soil survey maps
PLOTS	EcositeReference	Text	6	VT_PlotEcositeReference	Publication used for ecosite classification, e.g.
PLOTS	DominantEcosite	Text	10	VT_PlotEcosite	The dominant ecosite represented by the plot; ecosite names may come from a variety of classifications, e.g.:
PLOTS	SecondaryEcosite	Text	10	VT_PlotEcosite	Secondary ecosite if the plot is considered to represent a complex; names are chosen from the same sources as the dominant ecosite.
PLOTS	LandUse	Text	2	VT_PlotLanduse	Land use in the area which the plot is considered to represent:
PLOTS	CurrentGrazingLevel	Text	1	VT_PlotGrazingLevel	Level of current grazing use (after Holechek):
PLOTS	Disturbances	Memo	-		Comments on other disturbances affecting the plot area (e.g. burning, beaver felling).
PLOTS	AdjacentLandUse	Memo	-		Comments on land uses adjacent to the area represented by the plot (e.g. cultivated fields adjacent to the native quarter that was sampled).
PLOTS	SoilMapUnit	Text	10		Soil map unit shown on the 1:100,000 soil map, e.g. FrEc 2
PLOTS	MappedTextureClass	Text	10		Texture class shown on the 1:100,000 soil map, e.g. sl - l
PLOTS	MappedSlopeClass	Text	5		Slope class shown on the 1:100,000 soil map, e.g. 4 - 5
PLOTS	MappedSalinityClass	Text	5		Salinity class shown on the 1:100,000 soil map, e.g. 1WPA
PLOTS	FieldLandform	Text	3	VT_PlotLandForm	Geomorphic landform based on mode of origin; this variable is shown as optional because it was not recorded in much of the legacy data, but it is recommended for recording in future surveys.
PLOTS	FieldSteepnessPercent	Single	4		Average slope steepness (%); steepness measured in degrees should be converted to percent prior to

Table	Column	Type	Size	Validation Table	Description
					entry; use 999 for widely varying slopes within the plot area; this variable is shown as optional because it was not recorded in much of the legacy data, but it is recommended for measurement in future surveys.
PLOTS	FieldAspect	Integer	2		Average slope aspect (degrees); use 999 for widely varying slopes within the plot area; this variable is shown as optional because it was not recorded in much of the legacy data, but it is recommended for measurement in future surveys.
PLOTS	FieldTopographyComments	Memo	-		Comments on patterns of topography in the area represented by the plot.
PLOTS	FieldDominantTexture	Text	4	VT_PlotTexture	Dominant soil texture at the plot as determined in the field; this variable is shown as optional because it was not recorded in much of the legacy data, but it is recommended for measurement in future surveys.
PLOTS	FieldSalinityEvidence	Text	3	VT_PlotSalinityEvidence	Evidence of salinity observed in the field
PLOTS	FieldSoilAssociation	Text	25		Name of soil association determined in the field; this variable should only be recorded if the soil was examined in the field.
PLOTS	MottlingDepth	Single	4		Depth (cm) from the mineral soil surface to the appearance of mottling; only mottling in the top 100 cm of soil should be considered; this variable should only be recorded if the soil was examined in the field.
PLOTS	GleyingDepth	Single	4		Depth (cm) from the mineral soil surface to the appearance of gleying; only gleying in the top 100 cm of soil should be considered; this variable should only be recorded if the soil was examined in the field.
PLOTS	DrainageClass	Text	2	VT_PlotDrainageClass	Assignment of a drainage class which represents how fast water is drained from the soil. This is an indicator of the amount of moisture available for plant growth, compared to other sites in the same region. Note that it is based on site properties such as soil texture and topography - it does not depend on weather and climate. Drainage classes are defined as follows (based on Beckingham et al. 1996):
PLOTS	StructuralType	Text	3	VT_PlotStructuralType	General type of vegetation structure
PLOTS	LocationComments	Memo	-		Location descriptions comments/notes
PLOTS	CreatedBy	Text	15		ID of user that created plot in VegISS
PLOTS	CreatedOn	Date/Time	8		Date plot was created in VegISS
PLOTS	ModifiedBy	Text	15		ID of user that last modified the plot record in VegISS
PLOTS	ModifiedOn	Date/Time	8		Date the plot was last modified in VegISS
PLOTSPECIES	OBJECTID	Long Integer	4		
PLOTSPECIES	PlotSpeciesID	Text	36		Unique identifier (GUID) for each species recorded at the plot level; note that this table should be used for data applying to a whole plot, whether these come from plot estimates or from summary of sample estimates.

Table	Column	Type	Size	Validation Table	Description
PLOTSPECIES	VegSamplingTaskID	Text	36		Shows relationship to VEGSAMPLINGTASKS
PLOTSPECIES	OriginalName	Text	50		Name of the species as originally recorded in the field data; this could be the original scientific name, an acronym, or a common name.
PLOTSPECIES	SpeciesCode	Text	12	VT_Species	Standard acronym for species using 4/3 or 4/3/3 code
PLOTSPECIES	Percentage	Single	4		Percentage value
PLOTSPECIES	CoverClass	Text	5	VT_CoverClass	Coverage class codes (i.e. Daubenmire)
PLOTSPECIES	Biomass	Double	8		Weight (kg/ha) of the above-ground biomass of plants of the species
PLOTSPECIES	BasalArea	Single	4		Areas (m2/ha) of the bases of plants of the species; generally only used for trees.
PLOTSPECIES	Density	Double	8		Density (stems/ha) of plants of the species
PLOTSPECIES	DensityDistrClass	Integer	2	VT_DensityDistributionClass	Density distribution class of plants of the species according to the scale used in range health protocols
PLOTSTRUCTURE	OBJECTID	Long Integer	4		Vegetation structure at the level of the whole plot, collected within a given vegetation sampling task
PLOTSTRUCTURE	PlotStructureID	Text	36		Unique identifier (GUID) for each cover measurement of a vegetation layer within a plot; also used for structural variables such as litter cover or percent bare soil; note that this table should be used for structural data applying to a whole plot, whether these come from plot estimates or from averages of sample estimates.
PLOTSTRUCTURE	VegSamplingTaskID	Text	36		Shows relationship to VEGSAMPLINGTASKS
PLOTSTRUCTURE	Layer	Text	3	VT_PlotLayers	Name of vegetation layer or other structural variable
PLOTSTRUCTURE	UpperHeight	Integer	3		Upper height limit (cm) of layer; enter 999 for undefined upper height limit; also use this field for depth of LFH layer (i.e. height above mineral soil surface).
PLOTSTRUCTURE	LowerHeight	Integer	2		Lower height limit (cm) of layer
PLOTSTRUCTURE	Cover	Single	4		Percent cover of layer
PLOTSTRUCTURE	CoverClass	Text	5	VT_CoverClass	Coverage class codes (i.e. Daubenmire)
PLOTSTRUCTURE	Weight	Single	4		Weight (kg/ha) of layer; this field could be used for litter weight in range health assessments; it could also be used for cliping of a layer to determin forage yield.
PLOTTREEAGE	OBJECTID	Long Integer	4		
PLOTTREEAGE	PlotTreeAgeID	Text	36		Unique identifier (GUID) for each tree measured for tree age in a vegetation sampling task
PLOTTREEAGE	VegSamplingTaskID	Text	36		Shows relationship to VEGSAMPLINGTASKS
PLOTTREEAGE	Age	Integer	2		Tree age in years
PLOTTREEAGE	DBH	Single	4		Tree diameter breast height in cm
PLOTTREEAGE	Height	Single	4		Tree Height in meters
PLOTTREEAGE	Rotten	Text	1	VT_YesNo	Indicates if the tree is rotten or not
PLOTTREEAGE	SpeciesCode	Text	12	VT_Species	Tree species code
PLOTTREETALLY	OBJECTID	Long Integer	4		
PLOTTREETALLY	PlotTreeTallyID	Text	36		Unique identifier (GUID) for each tree

Table	Column	Type	Size	Validation Table	Description
					measured/tallied as part of a vegetation sampling task
PLOTTREETALLY	VegSamplingTaskID	Text	36		Shows relationship to VEGSAMPLINGTASKS
PLOTTREETALLY	TreeNumber	Integer	2		Tree number
PLOTTREETALLY	SpeciesCode	Text	12	VT_Species	Tree species code
PLOTTREETALLY	DBH	Single	4		Tree diameter breast height in cm
PLOTTREETALLY	Height	Single	4		Tree Height in meters
PLOTTREETALLY	BasalArea	Single	4		Basal area
PLOTTREETALLY	DeadTree	Text	1	VT_YesNo	Indicates if tree is dead or not
PLOTUTM	OBJECTID	Long Integer	4		
PLOTUTM	PlotUMID	Text	36		Unique identifier (GUID) for each plot-level UTM location
PLOTUTM	PlotID	Text	36		Shows relationship to PLOTS
PLOTUTM	LocationType	Text	2	VT_PlotLocationType	Type of location:
PLOTUTM	Datum	Text	5	VT_Datum	Horizontal datum used for locations
PLOTUTM	UTMzone	Integer	2		Zone for UTM eastings
PLOTUTM	Easting	Long Integer	4		UTM easting (m)
PLOTUTM	Northing	Long Integer	4		UTM northing (m)
PROJECTMASTER	ProjectNumber	Long Integer	4		
PROJECTMASTER	ProjectName	Text	50		User-defined project name to help group plots and drive a pick list when defining the plot itself
PROJECTMASTER	ProjectDescription	Text	255		General description of the project
PROJECTMASTER	StatusFlag	Text	1		Status of project
SAMPLEDIMENSIONS	OBJECTID	Long Integer	4		
SAMPLEDIMENSIONS	SampleDimensionsID	Text	36		Unique identifier (GUID) for each sample dimension used in a vegetation sampling task. Entries should only be made in this table if replicate samples were measured; in the case of plot estimates the dimensions of the plot should be entered in PLOTDIMENSIONS.
SAMPLEDIMENSIONS	VegSamplingTaskID	Text	36		Shows relationship to VEGSAMPLINGTASKS
SAMPLEDIMENSIONS	DimensionType	Text	2	VT_DimensionType	Dimension Type for sample
SAMPLEDIMENSIONS	Measurement	Integer	2		Measurement of the specified dimension
SAMPLESPECIES	OBJECTID	Long Integer	4		
SAMPLESPECIES	SampleSpeciesID	Text	36		Unique identifier (GUID) for each species recorded within a sample.
SAMPLESPECIES	VegSampleID	Text	36		Shows relationship to VEGSAMPLES.
SAMPLESPECIES	OriginalName	Text	50		Name of the species as originally recorded in the field data; this could be the original scientific name, an acronym, or a common name.
SAMPLESPECIES	SpeciesCode	Text	12	VT_Species	Standard acronym for species using 4/3 or 4/3/3 code
SAMPLESPECIES	Percentage	single	4		Percentage value
SAMPLESPECIES	CoverClass	Text	5	VT_CoverClass	Coverage class codes (i.e. Daubenmire)

Table	Column	Type	Size	Validation Table	Description
SAMPLESPECIES	Biomass	Double	8		Weight (kg/ha) of the above-ground biomass of plants of the species
SAMPLESPECIES	BasalArea	Single	4		Areas (m2/ha) of the bases of plants of the species; generally only used for trees.
SAMPLESPECIES	Density	Double	8		Density (stems/ha) of plants of the species
SAMPLESPECIES	DensityDistrClass	Integer	2	VT_DensityDistributionClass	Density distribution class of plants of the species according to the scale used in range health protocols
SAMPLESTRUCTURE	OBJECTID	Long Integer	4		Vegetation structure within a sample
SAMPLESTRUCTURE	SampleStructureID	Text	36		Unique identifier (GUID) for each cover measurement of a vegetation layer within a sample; also used for structural variables such as litter cover or percent bare soil.
SAMPLESTRUCTURE	VegSampleID	Text	36		Shows relationship to VEGSAMPLES.
SAMPLESTRUCTURE	Layer	Text	3	VT_PlotLayers	Name of vegetation layer or other structural variable
SAMPLESTRUCTURE	UpperHeight	Integer	2		Upper height limit (cm) of layer; enter 999 for undefined upper height limit; also use this field for depth of LFH layer (i.e. height above mineral soil surface).
SAMPLESTRUCTURE	LowerHeight	Integer	2		Lower height limit (cm) of layer
SAMPLESTRUCTURE	Cover	Single	4		Percent cover of layer
SAMPLESTRUCTURE	Weight	Single	4		Weight (kg/ha) of layer
SAMPLESTRUCTURE	CoverClass	Text	5	VT_CoverClass	Coverage class codes (i.e. Daubenmire)
SAMPLETREETALLY	OBJECTID	Long Integer	4		
SAMPLETREETALLY	SampleTreeTallyID	Text	36		Unique identifier (GUID) for eash sample tree tally in a vegetation sampling task
SAMPLETREETALLY	VegSampleID	Text	36		Shows relationship to VEGSAMPLINGTASKS
SAMPLETREETALLY	TreeNumber	Integer	2		Tree number
SAMPLETREETALLY	SpeciesCode	Text	12	VT_Species	Tree species code
SAMPLETREETALLY	DBH	Single	4		Tree diameter breast height in cm
SAMPLETREETALLY	Height	Single	4		Tree Height in meters
SAMPLETREETALLY	DeadTree	Text	1	VT_YesNo	Indicates if tree is dead or not
SAMPLEUTM	OBJECTID	Long Integer	4		
SAMPLEUTM	SampleUTMID	Text	36		Unique identifier (GUID) for each sample-level UTM location
SAMPLEUTM	VegSampleID	Text	36		Shows relationship to VEGSAMPLES
SAMPLEUTM	LocationType	Text	2	VT_SampleLocationType	Sample location type
SAMPLEUTM	Datum	Text	5		Horizontal datum used for locations
SAMPLEUTM	UTMzone	Integer	2		Zone for UTM eastings
SAMPLEUTM	Easting	Long Integer	4		UTM easting (m)
SAMPLEUTM	Northing	Long Integer	4		UTM northing (m)
SOILHORIZONS	OBJECTID	Long Integer	4		
SOILHORIZONS	SoilHorizonsID	Text	36		Unique identifier (GUID) for each soil horizon within a soil pit

Table	Column	Type	Size	Validation Table	Description
SOILHORIZONS	SoilPitID	Text	36		Shows relationship to SOILPITS
SOILHORIZONS	HorizonName	Text	5		Type of horizon, e.g. Ah, Bm, Ck.
SOILHORIZONS	HorizonTopDepth	Single	4		Vertical distance (cm) from mineral soil surface to top of horizon.
SOILHORIZONS	HorizonBottomDepth	Single	4		Vertical distance (cm) from mineral soil surface to bottom of horizon.
SOILHORIZONS	HorizonColour	Text	10		Colour of horizon by the Munsell system, e.g. 10YR 2/3
SOILHORIZONS	HorizonTexture	Text	4	VT_PlotTexture	Texture of horizon (see symbols under FieldDominantTexture).
SOILHORIZONS	HorizonComments	Memo	-		Other properties of the horizon.
SOILPITS	OBJECTID	Long Integer	4		
SOILPITS	SoilPitID	Text	36		Unique identifier (GUID) for each soil pit described within a plot
SOILPITS	PlotID	Text	36		Shows relationship to PLOTS
SOILPITS	SoilSeries	Text	50		Name of soil series as determined by soil profile
SOILPITS	SoilProfileComments	Memo	-		Comments on the soil profile
SURVEYS	OBJECTID	Long Integer	4		Surveys for a given plot
SURVEYS	SurveyID	Text	36		Unique identifier (GUID) for each survey of a plot; for example, if a particular plot was remeasured every five years, each remeasurement would constitute a survey.
SURVEYS	PlotID	Text	36		Shows relationship to PLOTS.
SURVEYS	CollectionDate	Date/Time	8		Date on which the plot was surveyed.
SURVEYS	CollectorGivenName	Text	15		Given name of leader of survey crew.
SURVEYS	CollectorSurname	Text	20		Surname of leader of survey crew.
SURVEYS	QAQConDataEntry	Text	1	VT_TrueFalse	Checkoff for QA/QC on data entry.
SURVEYS	DataEntryDate	Date/Time	8		Date of data entry.
SURVEYS	Purpose	Text	3	VT_SurveyPurpose	Purpose for which the survey was undertaken
SURVEYS	NumberVegSamplingTasks	Integer	2		Number of vegetation sampling tasks within a survey (e.g. one task might be quadrat sampling for percent biomass, another task might be line-intercept sampling for shrub cover).
SURVEYS	HealthAssessmentMethod	Text	5	VT_SurveyHealthMethod	Standardized range health assessment method (if any) used in this survey
SURVEYS	AssessmentMethodDate	Integer	2		Publication/revision date of health assessment method.
SURVEYS	PhotoNumber	Text	50		Photo reference number for survey
SURVEYS	CreatedBy	Text	15		ID of user that created survey in VegISS
SURVEYS	CreatedOn	Date/Time	8		Date the survey was created in VegISS
SURVEYS	ModifiedBy	Text	15		ID of user that last modified the survey record in VegISS
SURVEYS	ModifiedOn	Date/Time	8		Date the survey was last modified in VegISS
TAMECOMMENTS	OBJECTID	Long Integer	4		
TAMECOMMENTS	TameCommentID	Text	36		Unique identifier (GUID) for each comment within a tame health assessment
TAMECOMMENTS	TameHealthID	Text	36		Shows relationship to TAMEHEALTH

Table	Column	Type	Size	Validation Table	Description
TAMECOMMENTS	QuestionNumber	Single	4		Number of the question within the tame health method to which the comment relates
TAMECOMMENTS	Comment	Memo	-		Text of comment
TAMEHEALTH	OBJECTID	Long Integer	4		
TAMEHEALTH	TameHealthID	Text	36		Unique identifier (GUID) for each tame health assessment.
TAMEHEALTH	SurveyID	Text	36		Shows relationship to SURVEYS.
TAMEHEALTH	PastureType	Text	2	VT_TamePastureType	As documented in "Rangeland Health Assessment for Grassland, Forest & Tame Pasture" (Alberta Sustainable Resource Development)
TAMEHEALTH	Community	Text	10		Type of tame community (e.g. smooth brome-alfalfa)
TAMEHEALTH	Q1CompositionScore	Integer	2		As documented in "Rangeland Health Assessment for Grassland, Forest & Tame Pasture" (Alberta Sustainable Resource Development).
TAMEHEALTH	Q21TameDesireableNativeScore	Integer	2		As documented in "Rangeland Health Assessment for Grassland, Forest & Tame Pasture" (Alberta Sustainable Resource Development).
TAMEHEALTH	Q22WeedyDisturbSpeciesScore	Integer	2		As documented in "Rangeland Health Assessment for Grassland, Forest & Tame Pasture" (Alberta Sustainable Resource Development).
TAMEHEALTH	Q3LitterScore	Integer	2		As documented in "Rangeland Health Assessment for Grassland, Forest & Tame Pasture" (Alberta Sustainable Resource Development).
TAMEHEALTH	Q41SiteInstabilityScore	Integer	2		As documented in "Rangeland Health Assessment for Grassland, Forest & Tame Pasture" (Alberta Sustainable Resource Development).
TAMEHEALTH	Q42BareSoilScore	Integer	2		As documented in "Rangeland Health Assessment for Grassland, Forest & Tame Pasture" (Alberta Sustainable Resource Development).
TAMEHEALTH	Q51NoxiousCoverScore	Integer	2		As documented in "Rangeland Health Assessment for Grassland, Forest & Tame Pasture" (Alberta Sustainable Resource Development).
TAMEHEALTH	Q52NoxiousDistributionScore	Integer	2		As documented in "Rangeland Health Assessment for Grassland, Forest & Tame Pasture" (Alberta Sustainable Resource Development).
TAMEHEALTH	Q61WoodyRegrowthCoverScore	Integer	2		As documented in "Rangeland Health Assessment for Grassland, Forest & Tame Pasture" (Alberta Sustainable Resource Development).
TAMEHEALTH	Q62WoodyRegrowthDistribScore	Integer	2		As documented in "Rangeland Health Assessment for Grassland, Forest & Tame Pasture" (Alberta Sustainable Resource Development).
TAMEHEALTH	SiteNormallyStable	Text	1	VT_TrueFalse	As documented in "Rangeland Health Assessment for Grassland, Forest & Tame Pasture" (Alberta Sustainable Resource Development).
TAMEHEALTH	GrazingIntensity	Text	5	VT_TameGrazingIntensity	Percentage; as documented in "Rangeland Health Assessment for Grassland, Forest & Tame Pasture" (Alberta Sustainable Resource Development).
TAMEHEALTH	Trend	Text	2	VT_TameTrend	As documented in "Rangeland Health Assessment for Grassland, Forest & Tame Pasture" (Alberta Sustainable Resource Development).
TAMEHEALTH	VegetationHeight	Single	4		Percentage; as documented in "Rangeland Health

Table	Column	Type	Size	Validation Table	Description
					Assessment for Grassland, Forest & Tame Pasture" (Alberta Sustainable Resource Development).
TAMEHEALTH	ObservedUtilization	Single	4		As documented in "Rangeland Health Assessment for Grassland, Forest & Tame Pasture" (Alberta Sustainable Resource Development).
TAMEHEALTHNOXIOUSWEEDS	OBJECTID	Long Integer	4		
TAMEHEALTHNOXIOUSWEEDS	NoxiousWeedsID	Text	36		Unique identifier (GUID) for each noxious species listed for a Tame Health Assessment
TAMEHEALTHNOXIOUSWEEDS	TameHealthID	Text	36		Shows relationship to TAMEHEALTH
TAMEHEALTHNOXIOUSWEEDS	NoxiousDomSpecies	Text	12	VT_Species	Noxiious species code
TAMEHEALTHNOXIOUSWEEDS	NoxiousCoverPercent	Single	4		Percent cover of noxious species
TAMEHEALTHNOXIOUSWEEDS	NoxiousDistributionClass	Integer	2	VT_DensityDistributionClass	Density distribution class of noxious species according to the scale used in range health protocols
TAMEHEALTHWOODYREGROWTH	OBJECTID	Long Integer	4		
TAMEHEALTHWOODYREGROWTH	WoodyRegrowthID	Text	36		Unique identifier (GUID) for each woody growth species listed for a Tame Health Assessment
TAMEHEALTHWOODYREGROWTH	TameHealthID	Text	36		Shows relationship to TAMEHEALTH
TAMEHEALTHWOODYREGROWTH	WoodyDomSpecies	Text	12	VT_Species	Woody regrowth species code
TAMEHEALTHWOODYREGROWTH	WoodyRegrowthCoverPercent	Single	4		Percent cover of woody species
TAMEHEALTHWOODYREGROWTH	WoodyRegrowthDistributionClass	Integer	2	VT_DensityDistributionClass	Density distribution class of woody regrowth species according to the scale used in range health protocols
VEGSAMPLES	OBJECTID	Long Integer	4		Replicate samples measured within a given vegetation sampling task
VEGSAMPLES	VegSampleID	Text	36		Unique identifier (GUID) for each sample within a sampling task.
VEGSAMPLES	VegSamplingTaskID	Text	36		Shows relationship to VEGSAMPLINGTASKS
VEGSAMPLES	VegSampleNumber	Integer	2		Sample number (i.e. 1-10)
VEGSAMPLINGTASKS	OBJECTID	Long Integer	4		Separate vegetation sampling tasks conducted within a given survey
VEGSAMPLINGTASKS	VegSamplingTaskID	Text	36		Unique identifier beginning with an agency code for each vegetation sampling task within a survey (e.g. one task might be quadrat sampling for percent biomass of herbs, another task might be line-intercept sampling for shrub cover). Tasks should be separated if different sampling methods were used, different numbers or sizes of quadrats were used, or different vegetation layers were targeted.
VEGSAMPLINGTASKS	SurveyID	Text	36		Shows relationship to SURVEYS.
VEGSAMPLINGTASKS	VegetationLayers	Text	3	VT_VegetationLayers	Vegetation layers targeted by this task
VEGSAMPLINGTASKS	VascularAuthority	Text	6	VT_VegVascularAuthority	Authority for standard scientific names of vascular plant species. As of 2009, it is assumed that Harms (2006) will be used as the standard list of vascular plant names. However, in the future, it may be necessary to adopt a new authority, at which point the data will have to be converted to the new list, and this field will be changed.
VEGSAMPLINGTASKS	VascularTaxonResolution	Integer	2	VT_VegTaxonResolution	Extent to which vascular plants were separated into

Table	Column	Type	Size	Validation Table	Description
					species:
VEGSAMPLINGTASKS	NonvascularAuthority	Text	10		Authority for standard scientific names of nonvascular plant species.
VEGSAMPLINGTASKS	NonvascularTaxonResolution	Integer	2	VT_VegTaxonResolution	Extent to which non-vascular plants were separated into species:
VEGSAMPLINGTASKS	VegetationMeasure	Text	3	VT_VegetationMeasure	Primary measure of species abundance used in this task: ***May not be needed***
VEGSAMPLINGTASKS	SamplingMethod	Text	2	VT_VegSamplingMethod	Sampling method used to estimate species abundance:
VEGSAMPLINGTASKS	NumberOfSamples	Integer	2		The number of replicate samples which are averaged to obtain estimates for the whole plot. This could be the number of sample quadrats, the number of placements of the point-frame, the number of lines measured by the line-intercept method, etc. In the case of plot estimates, the number of samples should be recorded as 1.
VEGSAMPLINGTASKS	DataLevelStored	Text	1	VT_VegDataLevelStored	What level of data is stored?
VEGSAMPLINGTASKS	MethodComments	Memo	-		Comments on the method used for the vegetation sampling task, such as placement of lines or quadrats, or unusual features of sampling methods.
VEGSAMPLINGTASKS	PercentageType	Text	2	VT_PlotPercentType	Percentage type
VEGSAMPLINGTASKS	SampleArea	Double	8		Sample area (m2)
VEGSAMPLINGTASKS	PrismFactor	Single	4		Prism factor used for tree tallies
VT_CoverClass	CoverClass	Text	5		
VT_CoverClass	Short_Desc	Text	25		
VT_CoverClass	Long_Desc	Text	50		
VT_CoverClass	Active	Text	1		
VT_CoverClass	Sort_Order	Integer	2		
VT_CoverClass	Range_Minimum	Integer	2		
VT_CoverClass	Range_Maximum	Integer	2		
VT_CoverClass	Midpoint	Single	4		
VT_Datum	Datum	Text	5		
VT_Datum	Short_Desc	Text	25		
VT_Datum	Long_Desc	Text	50		
VT_Datum	Active	Text	1		
VT_Datum	Sort_Order	Integer	2		
VT_DensityDistributionClass	Class	Byte	1		
VT_DensityDistributionClass	Short_Desc	Text	5		
VT_DensityDistributionClass	Long_Desc	Text	100		
VT_DensityDistributionClass	Active	Text	1		
VT_DensityDistributionClass	Sort_Order	Integer	2		
VT_FHIPlantCommunityMethod	PlantCommunityMethod	Text	3		
VT_FHIPlantCommunityMethod	Short_Desc	Text	25		
VT_FHIPlantCommunityMethod	Long_Desc	Text	50		
VT_FHIPlantCommunityMethod	Active	Text	1		
VT_FHIPlantCommunityMethod	Sort_Order	Integer	2		
VT_GrassPlantCommMethod	PlantCommunityMethod	Text	3		
VT_GrassPlantCommMethod	Short_Desc	Text	25		
VT_GrassPlantCommMethod	Long_Desc	Text	50		

Table	Column	Type	Size	Validation Table	Description
VT_GrassPlantCommMethod	Active	Text	1		
VT_GrassPlantCommMethod	Sort_Order	Integer	2		
VT_LentLongAgeDistribution	Code	Integer	2		
VT_LentLongAgeDistribution	Short_Desc	Text	30		
VT_LentLongAgeDistribution	Long_Desc	Text	100		
VT_LentLongAgeDistribution	Active	Text	1		
VT_LentLongAgeDistribution	Sort_Order	Integer	2		
VT_LentLongArtificalChange	Code	Text	3		
VT_LentLongArtificalChange	Short_Desc	Text	30		
VT_LentLongArtificalChange	Long_Desc	Text	100		
VT_LentLongArtificalChange	Active	Text	1		
VT_LentLongArtificalChange	Sort_Order	Integer	2		
VT_LentLongConstructCause	Code	Text	3		
VT_LentLongConstructCause	Short_Desc	Text	30		
VT_LentLongConstructCause	Long_Desc	Text	100		
VT_LentLongConstructCause	Active	Text	1		
VT_LentLongConstructCause	Sort_Order	Integer	2		
VT_LentLongFisheryType	Code	Text	3		
VT_LentLongFisheryType	Short_Desc	Text	30		
VT_LentLongFisheryType	Long_Desc	Text	100		
VT_LentLongFisheryType	Active	Text	1		
VT_LentLongFisheryType	Sort_Order	Integer	2		
VT_LentLongFishObserved	Code	Text	5		
VT_LentLongFishObserved	Short_Desc	Text	30		
VT_LentLongFishObserved	Long_Desc	Text	100		
VT_LentLongFishObserved	Active	Text	1		
VT_LentLongFishObserved	Sort_Order	Integer	2		
VT_LentLongLanduse	Code	Text	3		
VT_LentLongLanduse	Short_Desc	Text	30		
VT_LentLongLanduse	Long_Desc	Text	100		
VT_LentLongLanduse	Active	Text	1		
VT_LentLongLanduse	Sort_Order	Integer	2		
VT_LentLongOverflowStructure	Code	Text	3		
VT_LentLongOverflowStructure	Short_Desc	Text	30		
VT_LentLongOverflowStructure	Long_Desc	Text	100		
VT_LentLongOverflowStructure	Active	Text	1		
VT_LentLongOverflowStructure	Sort_Order	Integer	2		
VT_LentLongParticleSize	Code	Text	3		
VT_LentLongParticleSize	Short_Desc	Text	30		
VT_LentLongParticleSize	Long_Desc	Text	100		
VT_LentLongParticleSize	Active	Text	1		
VT_LentLongParticleSize	Sort_Order	Integer	2		
VT_LentLongPhysAlterCause	Code	Text	3		
VT_LentLongPhysAlterCause	Short_Desc	Text	30		
VT_LentLongPhysAlterCause	Long_Desc	Text	100		
VT_LentLongPhysAlterCause	Active	Text	1		
VT_LentLongPhysAlterCause	Sort_Order	Integer	2		
VT_LentLongPhysAlterType	Code	Text	3		

Table	Column	Type	Size	Validation Table	Description
VT_LentLongPhysAlterType	Short_Desc	Text	30		
VT_LentLongPhysAlterType	Long_Desc	Text	100		
VT_LentLongPhysAlterType	Active	Text	1		
VT_LentLongPhysAlterType	Sort_Order	Integer	2		
VT_LentLongPolygonTrend	Code	Text	1		
VT_LentLongPolygonTrend	Short_Desc	Text	30		
VT_LentLongPolygonTrend	Long_Desc	Text	100		
VT_LentLongPolygonTrend	Active	Text	1		
VT_LentLongPolygonTrend	Sort_Order	Integer	2		
VT_LentLongProcessClass	Code	Text	1		
VT_LentLongProcessClass	Short_Desc	Text	30		
VT_LentLongProcessClass	Long_Desc	Text	100		
VT_LentLongProcessClass	Active	Text	1		
VT_LentLongProcessClass	Sort_Order	Integer	2		
VT_LentLongProcessType	Code	Text	3		
VT_LentLongProcessType	Short_Desc	Text	30		
VT_LentLongProcessType	Long_Desc	Text	100		
VT_LentLongProcessType	Active	Text	1		
VT_LentLongProcessType	Sort_Order	Integer	2		
VT_LentLongProcessType	ProcessClass	Text	1		
VT_LentLongRegenCategory	Code	Integer	2		
VT_LentLongRegenCategory	Short_Desc	Text	30		
VT_LentLongRegenCategory	Long_Desc	Text	100		
VT_LentLongRegenCategory	Active	Text	1		
VT_LentLongRegenCategory	Sort_Order	Integer	2		
VT_LentLongSaplingUtilization	Code	Text	1		
VT_LentLongSaplingUtilization	Short_Desc	Text	30		
VT_LentLongSaplingUtilization	Long_Desc	Text	100		
VT_LentLongSaplingUtilization	Active	Text	1		
VT_LentLongSaplingUtilization	Sort_Order	Integer	2		
VT_LentLongShrubGrowth	Code	Text	1		
VT_LentLongShrubGrowth	Short_Desc	Text	30		
VT_LentLongShrubGrowth	Long_Desc	Text	100		
VT_LentLongShrubGrowth	Active	Text	1		
VT_LentLongShrubGrowth	Sort_Order	Integer	2		
VT_LentLongStrucDiversity	Code	Text	3		
VT_LentLongStrucDiversity	Short_Desc	Text	30		
VT_LentLongStrucDiversity	Long_Desc	Text	100		
VT_LentLongStrucDiversity	Active	Text	1		
VT_LentLongStrucDiversity	Sort_Order	Integer	2		
VT_LentLongSuccessStage	Code	Text	1		
VT_LentLongSuccessStage	Short_Desc	Text	30		
VT_LentLongSuccessStage	Long_Desc	Text	100		
VT_LentLongSuccessStage	Active	Text	1		
VT_LentLongSuccessStage	Sort_Order	Integer	2		
VT_LentLongVegAlterCause	Code	Text	3		
VT_LentLongVegAlterCause	Short_Desc	Text	30		
VT_LentLongVegAlterCause	Long_Desc	Text	100		

Table	Column	Type	Size	Validation Table	Description
VT_LentLongVegAlterCause	Active	Text	1		
VT_LentLongVegAlterCause	Sort_Order	Integer	2		
VT_LentLongVegAlterType	Code	Text	3		
VT_LentLongVegAlterType	Short_Desc	Text	30		
VT_LentLongVegAlterType	Long_Desc	Text	100		
VT_LentLongVegAlterType	Active	Text	1		
VT_LentLongVegAlterType	Sort_Order	Integer	2		
VT_LentLongVegStatus	Code	Text	2		
VT_LentLongVegStatus	Short_Desc	Text	30		
VT_LentLongVegStatus	Long_Desc	Text	100		
VT_LentLongVegStatus	Active	Text	1		
VT_LentLongVegStatus	Sort_Order	Integer	2		
VT_LentLongWaterbodyType	Code	Text	3		
VT_LentLongWaterbodyType	Short_Desc	Text	30		
VT_LentLongWaterbodyType	Long_Desc	Text	100		
VT_LentLongWaterbodyType	Active	Text	1		
VT_LentLongWaterbodyType	Sort_Order	Integer	2		
VT_PlotAgency	AgencyPlotCode	Text	25		
VT_PlotAgency	Short_Desc	Text	25		
VT_PlotAgency	Long_Desc	Text	100		
VT_PlotAgency	Active	Text	1		
VT_PlotAgency	Sort_Order	Integer	2		
VT_PlotConfidentiality	Confidentiality	Integer	2		
VT_PlotConfidentiality	Short_Desc	Text	25		
VT_PlotConfidentiality	Long_Desc	Text	100		
VT_PlotConfidentiality	Active	Text	1		
VT_PlotConfidentiality	Sort_Order	Integer	2		
VT_PlotDimensionType	DimensionType	Text	2		
VT_PlotDimensionType	Short_Desc	Text	25		
VT_PlotDimensionType	Long_Desc	Text	50		
VT_PlotDimensionType	Active	Text	1		
VT_PlotDimensionType	Sort_Order	Integer	2		
VT_PlotDrainageClass	DrainageClass	Text	2		
VT_PlotDrainageClass	Short_Desc	Text	25		
VT_PlotDrainageClass	Long_Desc	Text	50		
VT_PlotDrainageClass	Active	Text	1		
VT_PlotDrainageClass	Sort_Order	Integer	2		
VT_PlotEcoregion	Ecoregion	Text	3		
VT_PlotEcoregion	Short_Desc	Text	25		
VT_PlotEcoregion	Long_Desc	Text	50		
VT_PlotEcoregion	Active	Text	1		
VT_PlotEcoregion	Sort_Order	Integer	2		
VT_PlotEcosite	Ecosite	Text	10		
VT_PlotEcosite	EcositeReference	Text	6		
VT_PlotEcosite	Short_Desc	Text	10		
VT_PlotEcosite	Long_Desc	Text	50		
VT_PlotEcosite	Active	Text	1		
VT_PlotEcosite	Sort_Order	Integer	2		

Table	Column	Type	Size	Validation Table	Description
VT_PlotEcositeReference	EcositeReference	Text	6		
VT_PlotEcositeReference	Short_Desc	Text	25		
VT_PlotEcositeReference	Long_Desc	Text	50		
VT_PlotEcositeReference	Active	Text	1		
VT_PlotEcositeReference	Sort_Order	Integer	2		
VT_PlotGrazingLevel	GrazingLevel	Text	1		
VT_PlotGrazingLevel	Short_Desc	Text	25		
VT_PlotGrazingLevel	Long_Desc	Text	50		
VT_PlotGrazingLevel	Active	Text	1		
VT_PlotGrazingLevel	Sort_Order	Integer	2		
VT_PlotLandForm	LandForm	Text	3		
VT_PlotLandForm	Short_Desc	Text	25		
VT_PlotLandForm	Long_Desc	Text	50		
VT_PlotLandForm	Active	Text	1		
VT_PlotLandForm	Sort_Order	Integer	2		
VT_PlotLandUse	LandUse	Text	2		
VT_PlotLandUse	Short_Desc	Text	25		
VT_PlotLandUse	Long_Desc	Text	50		
VT_PlotLandUse	Active	Text	1		
VT_PlotLandUse	Sort_Order	Integer	2		
VT_PlotLayers	Layer	Text	3		
VT_PlotLayers	Short_Desc	Text	30		
VT_PlotLayers	Long_Desc	Text	125		
VT_PlotLayers	Active	Text	1		
VT_PlotLayers	Sort_Order	Integer	2		
VT_PlotLocationFormat	LocationFormat	Text	3		
VT_PlotLocationFormat	Short_Desc	Text	25		
VT_PlotLocationFormat	Long_Desc	Text	50		
VT_PlotLocationFormat	Active	Text	1		
VT_PlotLocationFormat	Sort_Order	Integer	2		
VT_PlotLocationSource	LocationSource	Text	3		
VT_PlotLocationSource	Short_Desc	Text	25		
VT_PlotLocationSource	Long_Desc	Text	50		
VT_PlotLocationSource	Active	Text	1		
VT_PlotLocationSource	Sort_Order	Integer	2		
VT_PlotLocationType	LocationType	Text	2		
VT_PlotLocationType	Short_Desc	Text	25		
VT_PlotLocationType	Long_Desc	Text	100		
VT_PlotLocationType	Active	Text	1		
VT_PlotLocationType	Sort_Order	Integer	2		
VT_PlotPercentType	PercentageType	Text	2		
VT_PlotPercentType	Short_Desc	Text	30		
VT_PlotPercentType	Long_Desc	Text	125		
VT_PlotPercentType	Active	Text	1		
VT_PlotPercentType	Apply_Percent	Text	1		
VT_PlotPercentType	Sort_Order	Integer	2		
VT_PlotRangeEcoregion	RangeEcoregion	Text	4		
VT_PlotRangeEcoregion	Short_Desc	Text	25		

Table	Column	Type	Size	Validation Table	Description
VT_PlotRangeEcoregion	Long_Desc	Text	50		
VT_PlotRangeEcoregion	Active	Text	1		
VT_PlotRangeEcoregion	Sort_Order	Integer	2		
VT_PlotSalinityClass	SalinityClass	Text	4		
VT_PlotSalinityClass	Short_Desc	Text	25		
VT_PlotSalinityClass	Long_Desc	Text	100		
VT_PlotSalinityClass	Active	Text	1		
VT_PlotSalinityClass	Sort_Order	Integer	2		
VT_PlotSalinityEvidence	SalinityEvidence	Text	3		
VT_PlotSalinityEvidence	Short_Desc	Text	25		
VT_PlotSalinityEvidence	Long_Desc	Text	50		
VT_PlotSalinityEvidence	Active	Text	1		
VT_PlotSalinityEvidence	Sort_Order	Integer	2		
VT_PlotShape	PlotShape	Text	1		
VT_PlotShape	Short_Desc	Text	15		
VT_PlotShape	Long_Desc	Text	50		
VT_PlotShape	Active	Text	1		
VT_PlotShape	Sort_Order	Integer	2		
VT_PlotSlopeClass	SlopeClass	Text	4		
VT_PlotSlopeClass	Short_Desc	Text	25		
VT_PlotSlopeClass	Long_Desc	Text	50		
VT_PlotSlopeClass	Active	Text	1		
VT_PlotSlopeClass	Sort_Order	Integer	2		
VT_PlotSoilAssociation	SoilAssociation	Text	2		
VT_PlotSoilAssociation	Short_Desc	Text	25		
VT_PlotSoilAssociation	Long_Desc	Text	50		
VT_PlotSoilAssociation	Active	Text	1		
VT_PlotSoilAssociation	Sort_Order	Integer	2		
VT_PlotSoilZone	SoilZone	Text	2		
VT_PlotSoilZone	Short_Desc	Text	25		
VT_PlotSoilZone	Long_Desc	Text	50		
VT_PlotSoilZone	Active	Text	1		
VT_PlotSoilZone	Sort_Order	Integer	2		
VT_PlotStructuralType	StructuralType	Text	3		
VT_PlotStructuralType	Short_Desc	Text	25		
VT_PlotStructuralType	Long_Desc	Text	50		
VT_PlotStructuralType	Active	Text	1		
VT_PlotStructuralType	Sort_Order	Integer	2		
VT_PlotTexture	Texture	Text	4		
VT_PlotTexture	Short_Desc	Text	25		
VT_PlotTexture	Long_Desc	Text	50		
VT_PlotTexture	Active	Text	1		
VT_PlotTexture	Sort_Order	Integer	2		
VT_PlotTextureClass	TextureClass	Text	10		
VT_PlotTextureClass	Short_Desc	Text	25		
VT_PlotTextureClass	Long_Desc	Text	50		
VT_PlotTextureClass	Active	Text	1		
VT_PlotTextureClass	Sort_Order	Integer	2		

Table	Column	Type	Size	Validation Table	Description
VT_PlotWeightLayers	Layer	Text	3		
VT_PlotWeightLayers	Short_Desc	Text	30		
VT_PlotWeightLayers	Long_Desc	Text	125		
VT_PlotWeightLayers	Active	Text	1		
VT_PlotWeightLayers	Sort_Order	Integer	2		
VT_QuarterSection	QuarterSection	Text	2		
VT_QuarterSection	Short_Desc	Text	10		
VT_QuarterSection	Long_Desc	Text	50		
VT_QuarterSection	Active	Text	1		
VT_QuarterSection	Sort_Order	Integer	2		
VT_SampleHealthMethod	HealthAssessmentMethod	Text	5		
VT_SampleHealthMethod	Short_Desc	Text	25		
VT_SampleHealthMethod	Long_Desc	Text	50		
VT_SampleHealthMethod	Active	Text	1		
VT_SampleHealthMethod	Sort_Order	Integer	2		
VT_SampleLocationType	LocationType	Text	2		
VT_SampleLocationType	Short_Desc	Text	25		
VT_SampleLocationType	Long_Desc	Text	100		
VT_SampleLocationType	Active	Text	1		
VT_SampleLocationType	Sort_Order	Integer	2		
VT_Species	Acronym	Text	12		
VT_Species	Short_Desc	Text	25		
VT_Species	Long_Desc	Text	50		
VT_Species	Common_Name	Text	100		
VT_Species	Growth_Form	Text	15		
VT_Species	Tree_Code	Text	2		
VT_Species	Active	Text	1		
VT_Species	Sort_Order	Integer	2		
VT_SpeciesForm	Growth_Form	Text	15		
VT_SpeciesForm	Short_Desc	Text	25		
VT_SpeciesForm	Long_Desc	Text	50		
VT_SpeciesForm	Active	Text	1		
VT_SpeciesForm	Sort_Order	Integer	2		
VT_StableUnstable	StableUnstable	Text	1		
VT_StableUnstable	Short_Desc	Text	10		
VT_StableUnstable	Long_Desc	Text	25		
VT_StableUnstable	Active	Text	1		
VT_StableUnstable	Sort_Order	Integer	2		
VT_SurveyHealthMethod	HealthAssessmentMethod	Text	5		
VT_SurveyHealthMethod	Short_Desc	Text	25		
VT_SurveyHealthMethod	Long_Desc	Text	50		
VT_SurveyHealthMethod	Assessment_Year	Integer	2		
VT_SurveyHealthMethod	Active	Text	1		
VT_SurveyHealthMethod	Sort_Order	Integer	2		
VT_SurveyPurpose	Purpose	Text	3		
VT_SurveyPurpose	Short_Desc	Text	25		
VT_SurveyPurpose	Long_Desc	Text	100		
VT_SurveyPurpose	Active	Text	1		

Table	Column	Type	Size	Validation Table	Description
VT_SurveyPurpose	Sort_Order	Integer	2		
VT_TameGrazingIntensity	GrazingIntensity	Text	5		
VT_TameGrazingIntensity	Short_Desc	Text	25		
VT_TameGrazingIntensity	Long_Desc	Text	50		
VT_TameGrazingIntensity	Active	Text	1		
VT_TameGrazingIntensity	Sort_Order	Integer	2		
VT_TamePastureType	PastureType	Text	2		
VT_TamePastureType	Short_Desc	Text	25		
VT_TamePastureType	Long_Desc	Text	50		
VT_TamePastureType	Active	Text	1		
VT_TamePastureType	Sort_Order	Integer	2		
VT_TameTrend	Trend	Text	2		
VT_TameTrend	Short_Desc	Text	25		
VT_TameTrend	Long_Desc	Text	50		
VT_TameTrend	Active	Text	1		
VT_TameTrend	Sort_Order	Integer	2		
VT_TrueFalse	TrueFalse	Text	1		
VT_TrueFalse	Short_Desc	Text	210		
VT_TrueFalse	Long_Desc	Text	25		
VT_TrueFalse	Active	Text	1		
VT_TrueFalse	Sort_Order	Integer	2		
VT_TrueFalseNAUnk	Code	Text	1		
VT_TrueFalseNAUnk	Short_Desc	Text	30		
VT_TrueFalseNAUnk	Long_Desc	Text	100		
VT_TrueFalseNAUnk	Active	Text	1		
VT_TrueFalseNAUnk	Sort_Order	Integer	2		
VT_TrueFalseNc	TrueFalse	Text	1		
VT_TrueFalseNc	Short_Desc	Text	10		
VT_TrueFalseNc	Long_Desc	Text	25		
VT_TrueFalseNc	Active	Text	1		
VT_TrueFalseNc	Sort_Order	Integer	2		
VT_TrueFalseNcNa	TrueFalse	Text	1		
VT_TrueFalseNcNa	Short_Desc	Text	10		
VT_TrueFalseNcNa	Long_Desc	Text	25		
VT_TrueFalseNcNa	Active	Text	1		
VT_TrueFalseNcNa	Sort_Order	Integer	2		
VT_TrueFalseNcNaUnk	Code	Text	3		
VT_TrueFalseNcNaUnk	Short_Desc	Text	30		
VT_TrueFalseNcNaUnk	Long_Desc	Text	100		
VT_TrueFalseNcNaUnk	Active	Text	1		
VT_TrueFalseNcNaUnk	Sort_Order	Integer	2		
VT_TrueFalseUnk	TrueFalse	Text	1		
VT_TrueFalseUnk	Short_Desc	Text	10		
VT_TrueFalseUnk	Long_Desc	Text	25		
VT_TrueFalseUnk	Active	Text	1		
VT_TrueFalseUnk	Sort_Order	Integer	2		
VT_VegDataLevelStored	DataLevelStored	Text	1		
VT_VegDataLevelStored	Short_Desc	Text	25		

Table	Column	Type	Size	Validation Table	Description
VT_VegDataLevelStored	Long_Desc	Text	125		
VT_VegDataLevelStored	Active	Text	1		
VT_VegDataLevelStored	Sort_Order	Integer	2		
VT_VegetationLayers	VegetationLayers	Text	3		
VT_VegetationLayers	Short_Desc	Text	30		
VT_VegetationLayers	Long_Desc	Text	125		
VT_VegetationLayers	Active	Text	1		
VT_VegetationLayers	Sort_Order	Integer	2		
VT_VegetationMeauser	VegetationMeasure	Text	3		
VT_VegetationMeauser	Short_Desc	Text	25		
VT_VegetationMeauser	Long_Desc	Text	125		
VT_VegetationMeauser	Active	Text	1		
VT_VegetationMeauser	Sort_Order	Integer	2		
VT_VegSamplingMethod	SamplingMethod	Text	2		
VT_VegSamplingMethod	Short_Desc	Text	25		
VT_VegSamplingMethod	Long_Desc	Text	100		
VT_VegSamplingMethod	Active	Text	1		
VT_VegSamplingMethod	Sort_Order	Integer	2		
VT_VegTaxonResolution	TaxonResolution	Integer	2		
VT_VegTaxonResolution	Short_Desc	Text	25		
VT_VegTaxonResolution	Long_Desc	Text	100		
VT_VegTaxonResolution	Active	Text	1		
VT_VegTaxonResolution	Sort_Order	Integer	2		
VT_VegVasculatrAuthority	VascularAuthority	Text	6		
VT_VegVasculatrAuthority	Short_Desc	Text	25		
VT_VegVasculatrAuthority	Long_Desc	Text	100		
VT_VegVasculatrAuthority	Active	Text	1		
VT_VegVasculatrAuthority	Sort_Order	Integer	2		

8.3 VegISS Coding List

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_CoverClass	**CoverClass**	**Short_Desc**	**Long_Desc**	**Range_Minimum**	**Range_Maximum**	**Midpoint**
VT_CoverClass	D1	D1 (0-5%)	Daubenmire Class 1 (0-5%)	0	5	2.5
VT_CoverClass	D2	D2 (5-25%)	Daubenmire Class 2 (5-25%)	5	25	15
VT_CoverClass	D3	D3 (25-50%)	Daubenmire Class 3 (25-50%)	25	50	37.5
VT_CoverClass	D4	D4 (50-75%)	Daubenmire Class 4 (50-75%)	50	75	62.5
VT_CoverClass	D5	D5 (75-95%)	Daubenmire Class 5 (75-95%)	75	95	85
VT_CoverClass	D6	D6 (95-100%)	Daubenmire Class 6 (95-100%)	95	100	97.5
VT_CoverClass	MD1	MD1 (0-1%)	Modified Daubenmire Class 1 (0-1%)	0	1	0.5
VT_CoverClass	MD2	MD2 (1-5%)	Modified Daubenmire Class 2 (1-5%)	1	5	3
VT_CoverClass	MD3	MD3 (5-25%)	Modified Daubenmire Class 3 (5-25%)	5	25	15
VT_CoverClass	MD4	MD4 (25-50%)	Modified Daubenmire Class 4 (25-50%)	25	50	37.5
VT_CoverClass	MD5	MD5 (50-75%)	Modified Daubenmire Class 5 (50-75%)	50	75	62.5
VT_CoverClass	MD6	MD6 (75-95%)	Modified Daubenmire Class 6 (75-95%)	75	95	85
VT_CoverClass	MD7	MD7 (95-100%)	Modified Daubenmire Class 7 (95-100%)	95	100	97.5
VT_Datum	**Datum**	**Short_Desc**	**Long_Desc**			
VT_Datum	CSR98	CSRS98	CSRS98			
VT_Datum	NA	NA	Not recorded			
VT_Datum	NAD27	NAD27	NAD27			
VT_Datum	NAD83	NAD83	NAD83			
VT_Datum	WGS84	WGS84	WGS84			
VT_DensityDistributionClass	**Class**	**Short_Desc**	**Long_Desc**			
VT_DensityDistributionClass	0	0	None			
VT_DensityDistributionClass	1	1	Rare			
VT_DensityDistributionClass	2	2	A few sporadically occurring individual plants			
VT_DensityDistributionClass	3	3	A single patch			
VT_DensityDistributionClass	4	4	A single patch plus a few sporadically occurring plants			
VT_DensityDistributionClass	5	5	Several sporadically occurring plants			
VT_DensityDistributionClass	6	6	A single patch plus several sporadically occurring plants			
VT_DensityDistributionClass	7	7	A few patches			
VT_DensityDistributionClass	8	8	A few patches plus several sporadically occurring plants			
VT_DensityDistributionClass	9	9	Several well spaced patches			
VT_DensityDistributionClass	10	10	Continuous uniform occurrences of well spaced plants			
VT_DensityDistributionClass	11	11	Contiuous ocurrence of plants with a few gaps in the distribution			
VT_DensityDistributionClass	12	12	Continuous dense occurrence of plants			
VT_DensityDistributionClass	13	13	Continuous occurrence of plants with a distinct linear edge in the polygon			
VT_FHIPlantCommunityMethod	**PlantCommunityMethod**	**Short_Desc**	**Long_Desc**			
VT_FHIPlantCommunityMethod	P	Calculation	Calculation of % similarity using composition data			
VT_FHIPlantCommunityMethod	SUB	Subjective	Subjective assessment based on walkthrough			
VT_GrassPlantCommMethod	**PlantCommunityMethod**	**Short_Desc**	**Long_Desc**			
VT_GrassPlantCommMethod	CAL	Calculation	Calculation of % similarity using composition data			
VT_GrassPlantCommMethod	SUB	Subjective	Subjective assessment based on walkthrough			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PLotAgency	**AgencyPlotCode**	**Short_Desc**	**Long_Desc**			
VT_PLotAgency	AESB	AESB	Agri-Environmental Services Branch, Agriculture and Agri-Food Canada			
VT_PLotAgency	DUC	DUC	Ducks Unlimited Canada			
VT_PLotAgency	NCC	NCC	Nature Conservancy of Canada			
VT_PLotAgency	OTHR	OTHR	Other			
VT_PLotAgency	PCA	PCA	Parks Canada Agency			
VT_PLotAgency	SMA	SMA	Saskatchewan Ministry of Agriculture			
VT_PLotAgency	SME	SME	Saskatchewan Ministry of Environment			
VT_PLotAgency	SRC	SRC	Saskatchewan Research Council			
VT_PLotAgency	SWA	SWA	Saskatchewan Watershed Authority			
VT_PLotAgency	TPCS	TPCS	Saskatchewan Ministry of Tourism, Parks, Culture and Sport			
VT_PlotConfidentiality	**Confidentiality**	**Short_Desc**	**Long_Desc**			
VT_PlotConfidentiality	0	No concerns	No confidentiality concerns			
VT_PlotConfidentiality	1	No publishing	Land ownership can be included in DB sharing but not published in reports			
VT_PlotConfidentiality	2	No sharing	Land ownership cannot be shared with other agencies			
VT_PlotDimensionType	**DimensionType**	**Short_Desc**	**Long_Desc**			
VT_PlotDimensionType	DI	Diameter	Diameter of a circular plot			
VT_PlotDimensionType	LL	Line Length	Length of a line plot			
VT_PlotDimensionType	S1	Side 1 length	Length of the longer side of a rectangular plot			
VT_PlotDimensionType	S2	Side 2 length	Length of the shorter side of a rectangular plot			
VT_PlotDrainageClass	**DrainageClass**	**Short_Desc**	**Long_Desc**			
VT_PlotDrainageClass	I	I	Imperfectly drained			
VT_PlotDrainageClass	MW	MW	Moderately well drained			
VT_PlotDrainageClass	P	P	Poorly Drained			
VT_PlotDrainageClass	R	R	Rapidly drainied			
VT_PlotDrainageClass	SB	SB	Submerged			
VT_PlotDrainageClass	VP	VP	Very poorly drained			
VT_PlotDrainageClass	VR	VR	Very rapidly drained			
VT_PlotDrainageClass	W	W	Well drained			
VT_PlotEcoregion	**Ecoregion**	**Short_Desc**	**Long_Desc**			
VT_PlotEcoregion	AL	AL	Aspen Parkland			
VT_PlotEcoregion	AP	AP	Athabasca Plain			
VT_PlotEcoregion	BT	BT	Boreal Transition			
VT_PlotEcoregion	CRU	CRU	Churchill River Upland			
VT_PlotEcoregion	CU	CU	Cypress Upland			
VT_PlotEcoregion	MBL	MBL	Mid-Boreal Lowland			
VT_PlotEcoregion	MBU	MBU	Mid-Boreal Upland			
VT_PlotEcoregion	MG	MG	Mixed Grassland			
VT_PlotEcoregion	MMG	MMG	Moist Mixed Grassland			
VT_PlotEcoregion	SLU	SLU	Selwyn Lake Upland			
VT_PlotEcoregion	TLU	TLU	Tazin Lake Upland			
VT_PlotEcosite	**Ecosite**	**Short_Desc**	**Long_Desc**	**EcositeReference**		
VT_PlotEcosite	LOA	LOA	Loam	TP2007		
VT_PlotEcosite	SAN	SAN	Sand	TP2007		

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotEcosite	DMW	DMW	Dry Meadow	TP2007		
VT_PlotEcosite	CLY	CLY	Clay	TP2007		
VT_PlotEcosite	SLM	SLM	Sandy Loam	TP2007		
VT_PlotEcosite	LDU	LDU	Low Dunes	TP2007		
VT_PlotEcosite	HDU	HDU	High Dunes	TP2007		
VT_PlotEcosite	GRA	GRA	Gravelly	TP2007		
VT_PlotEcosite	SOL	SOL	Solonetzic	TP2007		
VT_PlotEcosite	THI	THI	Thin	TP2007		
VT_PlotEcosite	BDL	BDL	Badlands	TP2007		
VT_PlotEcosite	OVF	OVF	Overflow	TP2007		
VT_PlotEcosite	WMW	WMW	Wet Meadow	TP2007		
VT_PlotEcosite	SMS	SMS	Shallow Marsh	TP2007		
VT_PlotEcosite	DMS	DMS	Deep Marsh	TP2007		
VT_PlotEcosite	SLU	SLU	Saline Upland	TP2007		
VT_PlotEcosite	SLO	SLO	Saline Overflow	TP2007		
VT_PlotEcosite	SOO	SOO	Solonetzic Overflow	TP2007		
VT_PlotEcosite	SLD	SLD	Saline Dry Meadow	TP2007		
VT_PlotEcosite	SLW	SLW	Saline Wet Meadow	TP2007		
VT_PlotEcosite	SSM	SSM	Saline Shallow Meadow	TP2007		
VT_PlotEcosite	SDM	SDM	Saline Deep Meadow	TP2007		
VT_PlotEcosite	SAN	SAN	Sands	AB1990		
VT_PlotEcosite	SLM	SLM	Sandy	AB1990		
VT_PlotEcosite	LOA	LOA	Loamy	AB1990		
VT_PlotEcosite	CLY	CLY	Clayey	AB1990		
VT_PlotEcosite	DNS	DNS	Dune Sands	AB1990		
VT_PlotEcosite	SOL	SOL	Burnouts	AB1990		
VT_PlotEcosite	THI	THI	Thin Upland	AB1990		
VT_PlotEcosite	GRA	GRA	Gravelly	AB1990		
VT_PlotEcosite	GRS	GRS	Shallow-to-gravel	AB1990		
VT_PlotEcosite	SLU	SLU	Saline Upland	AB1990		
VT_PlotEcosite	BDL	BDL	Badlands	AB1990		
VT_PlotEcosite	OVF	OVF	Overflow	AB1990		
VT_PlotEcosite	SUB	SUB	Subirrigated	AB1990		
VT_PlotEcosite	WTL	WTL	Wetlands	AB1990		
VT_PlotEcosite	CLD	CLD	Closed Depression	AB1990		
VT_PlotEcosite	SAL	SAL	Saline Lowlands	AB1990		
VT_PlotEcosite	TS1	TS1	TS1 Jack pine/bearberry/lichen	MC2011		
VT_PlotEcosite	TS2	TS2	TS2 Jack pine-black spruce/lichen	MC2011		
VT_PlotEcosite	TS3	TS3	TS3 White birch/lingonberry/lichen	MC2011		
VT_PlotEcosite	TS4	TS4	TS4 Black spruce/lingonberry/feathermoss	MC2011		
VT_PlotEcosite	TS5	TS5	TS5 Trembling aspen/prickly rose-twinflower	MC2011		
VT_PlotEcosite	TS6	TS6	TS6 White birch-spruce/green alder	MC2011		
VT_PlotEcosite	TS7	TS7	TS7 White birch-black spruce/lingonberry	MC2011		
VT_PlotEcosite	TS8	TS8	TS8 White birch/river alder/feathermoss	MC2011		
VT_PlotEcosite	TS9	TS9	TS9 Black spruce treed bog	MC2011		
VT_PlotEcosite	TS10	TS10	TS10 Labrador tea shrubby bog	MC2011		
VT_PlotEcosite	TS11	TS11	TS11 Graminoid bog	MC2011		

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotEcosite	TS12	TS12	TS12 Open bog	MC2011		
VT_PlotEcosite	TS13	TS13	TS13 Tamarack treed fen	MC2011		
VT_PlotEcosite	TS14	TS14	TS14 Labrador tea shrubby fen	MC2011		
VT_PlotEcosite	TS15	TS15	TS15 Graminoid fen	MC2011		
VT_PlotEcosite	TS16	TS16	TS16 Open fen	MC2011		
VT_PlotEcosite	TS17	TS17	TS17 Lichen rocky shore	MC2011		
VT_PlotEcosite	BS1	BS1	BS1 Sand heather-floccose tansy sand dune	MC2011		
VT_PlotEcosite	BS2	BS2	BS2 Lichen/felsenmeer-bedrock	MC2011		
VT_PlotEcosite	BS3	BS3	BS3 Jack pine/blueberry/lichen	MC2011		
VT_PlotEcosite	BS4	BS4	BS4 Jack pine-black spruce/feathermoss	MC2011		
VT_PlotEcosite	BS5	BS5	BS5 Jack pine-white birch/feathermoss	MC2011		
VT_PlotEcosite	BS6	BS6	BS6 Jack pine-trembling aspen/green alder	MC2011		
VT_PlotEcosite	BS7	BS7	BS7 Black spruce/blueberry/lichen	MC2011		
VT_PlotEcosite	BS8	BS8	BS8 Black spruce-white birch/lichen	MC2011		
VT_PlotEcosite	BS9	BS9	BS9 Black spruce-jack pine/feathermoss	MC2011		
VT_PlotEcosite	BS10	BS10	BS10 Black spruce-white birch/feathermoss	MC2011		
VT_PlotEcosite	BS11	BS11	BS11 White spruce-balsam fir/feathermoss	MC2011		
VT_PlotEcosite	BS12	BS12	BS12 White spruce/crowberry/feathermoss	MC2011		
VT_PlotEcosite	BS13	BS13	BS13 White birch-black spruce-trembling aspen	MC2011		
VT_PlotEcosite	BS14	BS14	BS14 White birch/lingonberry-Labrador tea	MC2011		
VT_PlotEcosite	BS15	BS15	BS15 Trembling aspen-white birch/green alder	MC2011		
VT_PlotEcosite	BS16	BS16	BS16 Black spruce/balsam poplar/river alder swamp	MC2011		
VT_PlotEcosite	BS17	BS17	BS17 Black spruce treed bog	MC2011		
VT_PlotEcosite	BS18	BS18	BS18 Labrador tea shrubby bog	MC2011		
VT_PlotEcosite	BS19	BS19	BS19 Graminoid bog	MC2011		
VT_PlotEcosite	BS20	BS20	BS20 Open bog	MC2011		
VT_PlotEcosite	BS21	BS21	BS21 Tamarack treed fen	MC2011		
VT_PlotEcosite	BS22	BS22	BS22 Leatherleaf shrubby poor fen	MC2011		
VT_PlotEcosite	BS23	BS23	BS23 Willow shrubby rich fen	MC2011		
VT_PlotEcosite	BS24	BS24	BS24 Graminoid fen	MC2011		
VT_PlotEcosite	BS25	BS25	BS25 Open fen	MC2011		
VT_PlotEcosite	BS26	BS26	BS26 Rush sandy shore	MC2011		
VT_PlotEcosite	BS27	BS27	BS27 Sedge rocky shore	MC2011		
VT_PlotEcosite	BP1	BP1	BP1 June grass-mountain goldenrod grassland	MC2011		
VT_PlotEcosite	BP2	BP2	BP2 Jack pine/lichen	MC2011		
VT_PlotEcosite	BP3	BP3	BP3 Jack pine/feathermoss	MC2011		
VT_PlotEcosite	BP4	BP4	BP4 Jack pine-trembling aspen/feathermoss	MC2011		
VT_PlotEcosite	BP5	BP5	BP5 Trembling aspen/prickly rose/grass	MC2011		
VT_PlotEcosite	BP6	BP6	BP6 Trembling aspen/beaked hazel/sarsaparilla	MC2011		
VT_PlotEcosite	BP7	BP7	BP7 Trembling aspen-white birch/sarsaparilla	MC2011		
VT_PlotEcosite	BP8	BP8	BP8 Trembling aspen-white birch/mountain maple	MC2011		
VT_PlotEcosite	BP9	BP9	BP9 White spruce-trembling aspen/feathermoss	MC2011		
VT_PlotEcosite	BP10	BP10	BP10 Trembling aspen-white spruce/feathermoss	MC2011		
VT_PlotEcosite	BP11	BP11	BP11 White birch-white spruce-balsam fir	MC2011		
VT_PlotEcosite	BP12	BP12	BP12 Jack pine-spruce/feathermoss	MC2011		
VT_PlotEcosite	BP13	BP13	BP13 White spruce-balsam fir/feathermoss	MC2011		
VT_PlotEcosite	BP14	BP14	BP14 Black spruce/Labrador tea/feathermoss	MC2011		

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotEcosite	BP15	BP15	BP15 Balsam poplar-white spruce/feathermoss	MC2011		
VT_PlotEcosite	BP16	BP16	BP16 Balsam poplar-trembling aspen/prickly rose	MC2011		
VT_PlotEcosite	BP17	BP17	BP17 Manitoba maple-balsam poplar/ostrich fern	MC2011		
VT_PlotEcosite	BP18	BP18	BP18 Black spruce-tamarack treed swamp	MC2011		
VT_PlotEcosite	BP19	BP19	BP19 Black spruce treed bog	MC2011		
VT_PlotEcosite	BP20	BP20	BP20 Labrador tea shrubby bog	MC2011		
VT_PlotEcosite	BP21	BP21	BP21 Graminoid bog	MC2011		
VT_PlotEcosite	BP22	BP22	BP22 Open bog	MC2011		
VT_PlotEcosite	BP23	BP23	BP23 Tamarack treed fen	MC2011		
VT_PlotEcosite	BP24	BP24	BP24 Leatherleaf shrubby poor fen	MC2011		
VT_PlotEcosite	BP25	BP25	BP25 Willow shrubby rich fen	MC2011		
VT_PlotEcosite	BP26	BP26	BP26 Graminoid fen	MC2011		
VT_PlotEcosite	BP27	BP27	BP27 Open fen	MC2011		
VT_PlotEcosite	BP28	BP28	BP28 Seaside arrow-grass marsh	MC2011		
VT_PlotEcosite	PR1	PR1	PR1 Plains rough fescue-timber oatgrass grassland	MC2011		
VT_PlotEcosite	PR2	PR2	PR2 Lodgepole pine/grass	MC2011		
VT_PlotEcosite	PR3	PR3	PR3 Trembling aspen-lodgepole pine/bearberry	MC2011		
VT_PlotEcosite	PR4	PR4	PR4 Trembling aspen/bearberry/strawberry	MC2011		
VT_PlotEcosite	PR5	PR5	PR5 Trembling aspen/beaked hazel/sarsaparilla	MC2011		
VT_PlotEcosite	PR6	PR6	PR6 White spruce/grass/other mosses	MC2011		
VT_PlotEcosite	PR7	PR7	PR7 Trembling aspen-white spruce/western snowberry	MC2011		
VT_PlotEcosite	PR8	PR8	PR8 Balsam poplar-trembling aspen-green ash	MC2011		
VT_PlotEcosite	PR9	PR9	PR9 Graminoid fen	MC2011		
VT_PlotEcosite	WTI	WTI	Class I wetland	SK1971		
VT_PlotEcosite	WTII	WTII	Class II wetland	SK1971		
VT_PlotEcosite	WTIII	WTIII	Class III wetland	SK1971		
VT_PlotEcosite	WTIV	WTIV	Class IV wetland	SK1971		
VT_PlotEcosite	WTV	WTV	Class V wetland	SK1971		
VT_PlotEcosite	WTVI	WTVI	Class VI wetland	SK1971		
VT_PlotEcosite	WTVII	WTVII	Class VII wetland	SK1971		
VT_PlotEcosite	DMD	DMD	Low prairie zone	SK1971		
VT_PlotEcosite	WMD	WMD	Wet meadow zone	SK1971		
VT_PlotEcosite	SMH	SMH	Shallow marsh zone	SK1971		
VT_PlotEcosite	DMH	DMH	Deep marsh zone	SK1971		
VT_PlotEcosite	OPN	OPN	Permanent open-water zone	SK1971		
VT_PlotEcosite	ALK	ALK	Intermittent alkali zone	SK1971		
VT_PlotEcosite	FEN	FEN	Fen zone	SK1971		
VT_PlotEcosite	PIGL/COST	PIGL/COST	White Spruce/Red-osier Dogwood HT	TH2001		
VT_PlotEcosite	ACNE/PRVI	ACNE/PRVI	Manitoba Maple/Choke Cherry HT	TH2001		
VT_PlotEcosite	FRPE/PRVI	FRPE/PRVI	Green Ash/Choke Cherry HT	TH2001		
VT_PlotEcosite	POTR/COST	POTR/COST	Aspen/Red-osier Dogwood HT	TH2001		
VT_PlotEcosite	SABE/CAAT	SABE/CAAT	Beaked Willow/Awned Sedge HT	TH2001		
VT_PlotEcosite	SABE/COST	SABE/COST	Beaked Willow/Red-osier Dogwood HT	TH2001		
VT_PlotEcosite	SALU/COST	SALU/COST	Yellow Willow/Red-osier Dogwood HT	TH2001		
VT_PlotEcosite	SAPE/CAAT	SAPE/CAAT	Basket Willow/Awned Sedge HT	TH2001		
VT_PlotEcosite	SAPE/COST	SAPE/COST	Basket Willow/Red-osier Dogwood HT	TH2001		
VT_PlotEcosite	ARCA/AGSM	ARCA/AGSM	Silver Sagebrush/Western Wheat Grass HT	TH2001		

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotEcosite	SAVE/AGSM	SAVE/AGSM	Greasewood/Western Wheat Grass HT	TH2001		
VT_PlotEcosite	CAAQ	CAAQ	Water Sedge HT	TH2001		
VT_PlotEcosite	CAAT	CAAT	Awned Sedge HT	TH2001		
VT_PlotEcosite	CALA	CALA	Woolly Sedge HT	TH2001		
VT_PlotEcosite	AGSM	AGSM	Western Wheat Grass HT	TH2001		
VT_PlotEcosite	DECE	DECE	Tufted Hair Grass HT	TH2001		
VT_PlotEcosite	DIST	DIST	Salt Grass HT	TH2001		
VT_PlotEcosite	ELPA	ELPA	Creeping Spike Rush HT	TH2001		
VT_PlotEcosite	PHAR	PHAR	Reed Canary Grass HT	TH2001		
VT_PlotEcosite	PHAU	PHAU	Reed HT	TH2001		
VT_PlotEcosite	PUNU	PUNU	Nuttall's Salt-meadow Grass HT	TH2001		
VT_PlotEcosite	SCAC	SCAC	Great Bulrush HT	TH2001		
VT_PlotEcosite	SCPA	SCPA	Prairie Bulrush HT	TH2001		
VT_PlotEcosite	SCPU	SCPU	Three-square Rush HT	TH2001		
VT_PlotEcosite	SCFE	SCFE	Spangletop HT	TH2001		
VT_PlotEcosite	TYLA	TYLA	Common Cattail HT	TH2001		
VT_PlotEcosite	SAN	SAN	Submesic Sand	TG2008		
VT_PlotEcosite	LOA	LOA	Mesic Loam	TG2008		
VT_PlotEcosite	MOI	MOI	Moist	TG2008		
VT_PlotEcosite	AQU	AQU	Aquatic	OTHER		
VT_PlotEcosite	SPF	SPF	Shrubby Poor Fen	OTHER		
VT_PlotEcositeReference	**EcositeReference**	**Short_Desc**	**Long_Desc**			
VT_PlotEcositeReference	AB1990	AB-1990	Abouguendia 1990			
VT_PlotEcositeReference	MC2011	MC2011	McLaughlan et Al. 2011			
VT_PlotEcositeReference	OTHER	OTHER	Others			
VT_PlotEcositeReference	SK1971	SK-1971	Stewart and Kantrud 1971			
VT_PlotEcositeReference	TG2008	TG-2008	Thorpe and Godwin 2008			
VT_PlotEcositeReference	TH2001	TH-2001	Thompson and Hansen 2001			
VT_PlotEcositeReference	TP2007	TP-2007	Thorpe 2007			
VT_PlotGrazingLevel	**GrazingLevel**	**Short_Desc**	**Long_Desc**			
VT_PlotGrazingLevel	G	G	Grazed			
VT_PlotGrazingLevel	H	H	heavy			
VT_PlotGrazingLevel	L	L	Light			
VT_PlotGrazingLevel	M	M	Moderate			
VT_PlotGrazingLevel	S	S	Severe			
VT_PlotGrazingLevel	U	U	Ungrazed			
VT_PlotLandForm	**LandForm**	**Short_Desc**	**Long_Desc**			
VT_PlotLandForm	AFN	AFN	Alluvial fan			
VT_PlotLandForm	BRK	BRK	Bedrock			
VT_PlotLandForm	DIS	DIS	Dissected			
VT_PlotLandForm	DUN	DUN	Dunes			
VT_PlotLandForm	EK	EK	Eskers/kames			
VT_PlotLandForm	FLS	FLS	Fluvial-lacustrine			
VT_PlotLandForm	FPL	FPL	Floodplain			
VT_PlotLandForm	GFV	GFV	Glacio-fluvial			
VT_PlotLandForm	GLS	GLS	Glacio-lacustrine			
VT_PlotLandForm	LOS	LOS	Loess			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotLandForm	MOR	MOR	Morainal			
VT_PlotLandForm	PTL	PTL	Peatland			
VT_PlotLandUse	**LandUse**	**Short_Desc**	**Long_Desc**			
VT_PlotLandUse	CF	Commercial Forest	Commercial Forest			
VT_PlotLandUse	CL	Cultivated	Cultivated			
VT_PlotLandUse	DV	Development	Development			
VT_PlotLandUse	GF	Grazed Forest	Grazed Forest			
VT_PlotLandUse	NP	Native pasture	Native pasture			
VT_PlotLandUse	NU	Native ungrazed	Native ungrazed			
VT_PlotLandUse	PF	Protected Forest	Protected Forest			
VT_PlotLandUse	SP	Seeded pasture	Seeded pasture			
VT_PlotLandUse	SU	Seeded ungrazed	Seeded ungrazed			
VT_PlotLayers	**Layer**	**Short_Desc**	**Long_Desc**			
VT_PlotLayers	ALL	All Layers	All layers combined (as in Braun-Blanquet releves)			
VT_PlotLayers	BSL	Bare soil	Bare soil			
VT_PlotLayers	CBM	Clubmoss	The clubmoss portion of the herb layer			
VT_PlotLayers	DWD	Dead wood	Dead wood			
VT_PlotLayers	EMG	Emergent	Emergent			
VT_PlotLayers	FCM	Forbs with clubmoss	The forb portion of the herb layer, inclding clubmoss			
VT_PlotLayers	FLT	Floating	Floating			
VT_PlotLayers	FWO	Forbs without clubmoss	The forb portion of the herb layer, but excluding clubmoss			
VT_PlotLayers	GRA	Graminoids	The graminoid (i.e. grass-like) portion of the herb layer			
VT_PlotLayers	HCM	Herbs with clubmoss	The herb layer (graminoids with forbs), including clubmoss (Selaginella densa)			
VT_PlotLayers	HMN	Human	Impervious surface created by humans (i.e. pavement)			
VT_PlotLayers	HWO	Herbs without clubmoss	The herb layer, excluding clubmoss			
VT_PlotLayers	LCH	Lichen	Lichen			
VT_PlotLayers	LTR	Litter	Litter including LFH layers in forests			
VT_PlotLayers	MLI	Moss/lichen	Mosses and lichens combined			
VT_PlotLayers	MSS	Moss	Moss			
VT_PlotLayers	MUR	Manure	Manure			
VT_PlotLayers	PSH	Prostr shrubs	The prostrate shrub layer (eg. Creeping juniper, bearberry)			
VT_PlotLayers	RCK	Rocks	Rocks			
VT_PlotLayers	SMG	Submergent	Submergent			
VT_PlotLayers	SSH	Short shrubs	The short shrub layer, consisting of erect woody plants with max height < 1.5m (approx.)			
VT_PlotLayers	STR	Shrubs/trees	The tree and shrub layers combined			
VT_PlotLayers	TRE	Trees	The tree layer, consisting of woody plants with max height > 5m (approx.)			
VT_PlotLayers	TSH	Tall shrubs	The tall shrub layer, consisting of woody plants with max height 1.5-5m (approx.)			
VT_PlotLayers	USH	Undiff shrubs	The shrub layer, not differentiated by height class			
VT_PlotLocationFormat	**LocationFormat**	**Short_Desc**	**Long_Desc**			
VT_PlotLocationFormat	DD	Lat/Long DD	Latitude and longitude in decimal degrees			
VT_PlotLocationFormat	LGL	Legal	Location in the land survey grid			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotLocationFormat	UNK	Unknown	Unknown			
VT_PlotLocationFormat	UTM	UTM	Universal Transverse Mercator			
VT_PlotLocationSource	**LocationSource**	**Short_Desc**	**Long_Desc**			
VT_PlotLocationSource	GPS	GPS	Recorded with a GPS			
VT_PlotLocationSource	MAP	Map	Read from a map			
VT_PlotLocationSource	UNK	Unknown	Unknown			
VT_PlotLocationType	**LocationType**	**Short_Desc**	**Long_Desc**			
VT_PlotLocationType	CT	Centroid	Location of the centroid of a circular or rectangular plot			
VT_PlotLocationType	E1	End1	Location of the first end of a line plot			
VT_PlotLocationType	E2	End2	Location of the second end of the line plot			
VT_PlotLocationType	IN	Included	Location of a point other than the centre which is included in a circular/rectangular/irregular plot			
VT_PlotLocationType	PT	Point	Location of a point plot			
VT_PlotPercentType	**PercentageType**	**Short_Desc**	**Long_Desc**	**Apply_Percent**		
VT_PlotPercentType	BC	Basal cover	percent of the ground area covered by the bases of plants of the species, Trace = 0.1%	F		
VT_PlotPercentType	CC	Canopy cover	Percent of the ground area covered by vertical projection of the canopies of plants of the species, trace= 0.1%	T		
VT_PlotPercentType	FC	Foliar cover	Percent of the ground area covered by vertical projection of the leaves/stems/flowers of plants of the species, trace= 0.1%	T		
VT_PlotPercentType	FQ	Frequency	Percent of samples in which the species is present	F		
VT_PlotPercentType	PB	% Biomass	Percent contribution of the species to total biomass of the layer,trace= 0.1%	F		
VT_PlotPercentType	UC	Unspecified cover	Percent cover, but not known whether foliar or canopy	T		
VT_PlotRangeEcoregion	**RangeEcoregion**	**Short_Desc**	**Long_Desc**			
VT_PlotRangeEcoregion	AP	AP	Aspen Parkland			
VT_PlotRangeEcoregion	CUFP	CUFP	Cypress Upland, fescue prairie			
VT_PlotRangeEcoregion	CUMP	CUMP	Cypress Upland, Mixed prairie			
VT_PlotRangeEcoregion	DMG	DMG	Dry Mixed Grassland			
VT_PlotRangeEcoregion	MG	MG	Mixed Grassland			
VT_PlotRangeEcoregion	MMGD	MMGD	Moist Mixed Grassland, drier			
VT_PlotRangeEcoregion	MMGM	MMGM	Moist Mixed Grassland, moister			
VT_PlotSalinityClass	**SalinityClass**	**Short_Desc**	**Long_Desc**			
VT_PlotSalinityClass	1	1	0-3%-Nonsaline			
VT_PlotSalinityClass	1MA	1MA	0-3%-Moderate-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	1MAD	1MAD	0-3%-Moderate-Bottoms of depressions/sloughs-Bottoms of dissections/runways			
VT_PlotSalinityClass	1MAS	1MAS	0-3%-Moderate-Bottoms of depressions/sloughs-Sides of hills and slopes			
VT_PlotSalinityClass	1MD	1MD	0-3%-Moderate-Bottoms of dissections/runways			
VT_PlotSalinityClass	1MI	1MI	0-3%-Moderate-Within 60cm of soil surface			
VT_PlotSalinityClass	1MP	1MP	0-3%-Moderate-Edges of depressions/sloughs/runways			
VT_PlotSalinityClass	1MPA	1MPA	0-3%-Moderate-Edges of depressions/sloughs/runways-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	1MPD	1MPD	0-3%-Moderate-Edges of depressions/sloughs/runways-Bottoms of dissections/runways			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotSalinityClass	1MPS	1MPS	0-3%-Moderate-Edges of depressions/sloughs/runways-Sides of hills and slopes			
VT_PlotSalinityClass	1MS	1MS	0-3%-Moderate-Sides of hills and slopes			
VT_PlotSalinityClass	1SA	1SA	0-3%-Strong-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	1SAD	1SAD	0-3%-Strong-Bottoms of depressions/sloughs-Bottoms of dissections/runways			
VT_PlotSalinityClass	1SAS	1SAS	0-3%-Strong-Bottoms of depressions/sloughs-Sides of hills and slopes			
VT_PlotSalinityClass	1SD	1SD	0-3%-Strong-Bottoms of dissections/runways			
VT_PlotSalinityClass	1SP	1SP	0-3%-Strong-Edges of depressions/sloughs/runways			
VT_PlotSalinityClass	1SPA	1SPA	0-3%-Strong-Edges of depressions/sloughs/runways-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	1SPD	1SPD	0-3%-Strong-Edges of depressions/sloughs/runways-Bottoms of dissections/runways			
VT_PlotSalinityClass	1SS	1SS	0-3%-Strong-Sides of hills and slopes			
VT_PlotSalinityClass	1VA	1VA	0-3%-Very Strong-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	1VD	1VD	0-3%-Very Strong-Bottoms of dissections/runways			
VT_PlotSalinityClass	1WA	1WA	0-3%-Weak-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	1WAD	1WAD	0-3%-Weak-Bottoms of depressions/sloughs-Bottoms of dissections/runways			
VT_PlotSalinityClass	1WAS	1WAS	0-3%-Weak-Bottoms of depressions/sloughs-Sides of hills and slopes			
VT_PlotSalinityClass	1WD	1WD	0-3%-Weak-Bottoms of dissections/runways			
VT_PlotSalinityClass	1WDA	1WDA	0-3%-Weak-Bottoms of dissections/runways-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	1WI	1WI	0-3%-Weak-Within 60cm of soil surface			
VT_PlotSalinityClass	1WP	1WP	0-3%-Weak-Edges of depressions/sloughs/runways			
VT_PlotSalinityClass	1WPA	1WPA	0-3%-Weak-Edges of depressions/sloughs/runways-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	1WPD	1WPD	0-3%-Weak-Edges of depressions/sloughs/runways-Bottoms of dissections/runways			
VT_PlotSalinityClass	1WS	1WS	0-3%-Weak-Sides of hills and slopes			
VT_PlotSalinityClass	2	2	3-10%-Nonsaline			
VT_PlotSalinityClass	2MA	2MA	3-10%-Moderate-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	2MAD	2MAD	3-10%-Moderate-Bottoms of depressions/sloughs-Bottoms of dissections/runways			
VT_PlotSalinityClass	2MAI	2MAI	3-10%-Moderate-Bottoms of depressions/sloughs-Within 60cm of soil surface			
VT_PlotSalinityClass	2MAS	2MAS	3-10%-Moderate-Bottoms of depressions/sloughs-Sides of hills and slopes			
VT_PlotSalinityClass	2MD	2MD	3-10%-Moderate-Bottoms of dissections/runways			
VT_PlotSalinityClass	2MI	2MI	3-10%-Moderate-Within 60cm of soil surface			
VT_PlotSalinityClass	2MP	2MP	3-10%-Moderate-Edges of depressions/sloughs/runways			
VT_PlotSalinityClass	2MPA	2MPA	3-10%-Moderate-Edges of depressions/sloughs/runways-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	2MPD	2MPD	3-10%-Moderate-Edges of depressions/sloughs/runways-Bottoms of			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
			dissections/runways			
VT_PlotSalinityClass	2MPS	2MPS	3-10%-Moderate-Edges of depressions/sloughs/runways-Sides of hills and slopes			
VT_PlotSalinityClass	2MS	2MS	3-10%-Moderate-Sides of hills and slopes			
VT_PlotSalinityClass	2SA	2SA	3-10%-Strong-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	2SAD	2SAD	3-10%-Strong-Bottoms of depressions/sloughs-Bottoms of dissections/runways			
VT_PlotSalinityClass	2SAS	2SAS	3-10%-Strong-Bottoms of depressions/sloughs-Sides of hills and slopes			
VT_PlotSalinityClass	2SD	2SD	3-10%-Strong-Bottoms of dissections/runways			
VT_PlotSalinityClass	2SI	2SI	3-10%-Strong-Within 60cm of soil surface			
VT_PlotSalinityClass	2SP	2SP	3-10%-Strong-Edges of depressions/sloughs/runways			
VT_PlotSalinityClass	2SPA	2SPA	3-10%-Strong-Edges of depressions/sloughs/runways-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	2SPS	2SPS	3-10%-Strong-Edges of depressions/sloughs/runways-Sides of hills and slopes			
VT_PlotSalinityClass	2SS	2SS	3-10%-Strong-Sides of hills and slopes			
VT_PlotSalinityClass	2VA	2VA	3-10%-Very Strong-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	2VAS	2VAS	3-10%-Very Strong-Bottoms of depressions/sloughs-Sides of hills and slopes			
VT_PlotSalinityClass	2VP	2VP	3-10%-Very Strong-Edges of depressions/sloughs/runways			
VT_PlotSalinityClass	2VPA	2VPA	3-10%-Very Strong-Edges of depressions/sloughs/runways-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	2WA	2WA	3-10%-Weak-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	2WAD	2WAD	3-10%-Weak-Bottoms of depressions/sloughs-Bottoms of dissections/runways			
VT_PlotSalinityClass	2WD	2WD	3-10%-Weak-Bottoms of dissections/runways			
VT_PlotSalinityClass	2WI	2WI	3-10%-Weak-Within 60cm of soil surface			
VT_PlotSalinityClass	2WP	2WP	3-10%-Weak-Edges of depressions/sloughs/runways			
VT_PlotSalinityClass	2WPA	2WPA	3-10%-Weak-Edges of depressions/sloughs/runways-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	2WPD	2WPD	3-10%-Weak-Edges of depressions/sloughs/runways-Bottoms of dissections/runways			
VT_PlotSalinityClass	2WS	2WS	3-10%-Weak-Sides of hills and slopes			
VT_PlotSalinityClass	3	3	10-20%-Nonsaline			
VT_PlotSalinityClass	3MA	3MA	10-20%-Moderate-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	3MAD	3MAD	10-20%-Moderate-Bottoms of depressions/sloughs-Bottoms of dissections/runways			
VT_PlotSalinityClass	3MAS	3MAS	10-20%-Moderate-Bottoms of depressions/sloughs-Sides of hills and slopes			
VT_PlotSalinityClass	3MD	3MD	10-20%-Moderate-Bottoms of dissections/runways			
VT_PlotSalinityClass	3MI	3MI	10-20%-Moderate-Within 60cm of soil surface			
VT_PlotSalinityClass	3MP	3MP	10-20%-Moderate-Edges of depressions/sloughs/runways			
VT_PlotSalinityClass	3MPA	3MPA	10-20%-Moderate-Edges of depressions/sloughs/runways-Bottoms of			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
			depressions/sloughs			
VT_PlotSalinityClass	3MPD	3MPD	10-20%-Moderate-Edges of depressions/sloughs/runways-Bottoms of dissections/runways			
VT_PlotSalinityClass	3MPS	3MPS	10-20%-Moderate-Edges of depressions/sloughs/runways-Sides of hills and slopes			
VT_PlotSalinityClass	3MS	3MS	10-20%-Moderate-Sides of hills and slopes			
VT_PlotSalinityClass	3SA	3SA	10-20%-Strong-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	3SAD	3SAD	10-20%-Strong-Bottoms of depressions/sloughs-Bottoms of dissections/runways			
VT_PlotSalinityClass	3SAS	3SAS	10-20%-Strong-Bottoms of depressions/sloughs-Sides of hills and slopes			
VT_PlotSalinityClass	3SD	3SD	10-20%-Strong-Bottoms of dissections/runways			
VT_PlotSalinityClass	3SI	3SI	10-20%-Strong-Within 60cm of soil surface			
VT_PlotSalinityClass	3SP	3SP	10-20%-Strong-Edges of depressions/sloughs/runways			
VT_PlotSalinityClass	3SPA	3SPA	10-20%-Strong-Edges of depressions/sloughs/runways-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	3VA	3VA	10-20%-Very Strong-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	3VP	3VP	10-20%-Very Strong-Edges of depressions/sloughs/runways			
VT_PlotSalinityClass	3WA	3WA	10-20%-Weak-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	3WD	3WD	10-20%-Weak-Bottoms of dissections/runways			
VT_PlotSalinityClass	3WI	3WI	10-20%-Weak-Within 60cm of soil surface			
VT_PlotSalinityClass	3WP	3WP	10-20%-Weak-Edges of depressions/sloughs/runways			
VT_PlotSalinityClass	3WPA	3WPA	10-20%-Weak-Edges of depressions/sloughs/runways-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	4	4	20-40%-Nonsaline			
VT_PlotSalinityClass	4MA	4MA	20-40%-Moderate-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	4MAD	4MAD	20-40%-Moderate-Bottoms of depressions/sloughs-Bottoms of dissections/runways			
VT_PlotSalinityClass	4MAS	4MAS	20-40%-Moderate-Bottoms of depressions/sloughs-Sides of hills and slopes			
VT_PlotSalinityClass	4MD	4MD	20-40%-Moderate-Bottoms of dissections/runways			
VT_PlotSalinityClass	4MI	4MI	20-40%-Moderate-Within 60cm of soil surface			
VT_PlotSalinityClass	4MPA	4MPA	20-40%-Moderate-Edges of depressions/sloughs/runways-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	4SA	4SA	20-40%-Strong-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	4SAD	4SAD	20-40%-Strong-Bottoms of depressions/sloughs-Bottoms of dissections/runways			
VT_PlotSalinityClass	4SAI	4SAI	20-40%-Strong-Bottoms of depressions/sloughs-Within 60cm of soil surface			
VT_PlotSalinityClass	4SAS	4SAS	20-40%-Strong-Bottoms of depressions/sloughs-Sides of hills and slopes			
VT_PlotSalinityClass	4SD	4SD	20-40%-Strong-Bottoms of dissections/runways			
VT_PlotSalinityClass	4SI	4SI	20-40%-Strong-Within 60cm of soil surface			
VT_PlotSalinityClass	4SP	4SP	20-40%-Strong-Edges of depressions/sloughs/runways			
VT_PlotSalinityClass	4SPA	4SPA	20-40%-Strong-Edges of depressions/sloughs/runways-			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
			Bottoms of depressions/sloughs			
VT_PlotSalinityClass	4VA	4VA	20-40%-Very Strong-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	4VAS	4VAS	20-40%-Very Strong-Bottoms of depressions/sloughs-Sides of hills and slopes			
VT_PlotSalinityClass	4WA	4WA	20-40%-Weak-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	5	5	40-70%-Nonsaline			
VT_PlotSalinityClass	5MA	5MA	40-70%-Moderate-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	5MAD	5MAD	40-70%-Moderate-Bottoms of depressions/sloughs-Bottoms of dissections/runways			
VT_PlotSalinityClass	5MD	5MD	40-70%-Moderate-Bottoms of dissections/runways			
VT_PlotSalinityClass	5MI	5MI	40-70%-Moderate-Within 60cm of soil surface			
VT_PlotSalinityClass	5MPA	5MPA	40-70%-Moderate-Edges of depressions/sloughs/runways-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	5MS	5MS	40-70%-Moderate-Sides of hills and slopes			
VT_PlotSalinityClass	5SA	5SA	40-70%-Strong-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	5SAD	5SAD	40-70%-Strong-Bottoms of depressions/sloughs-Bottoms of dissections/runways			
VT_PlotSalinityClass	5SD	5SD	40-70%-Strong-Bottoms of dissections/runways			
VT_PlotSalinityClass	5SI	5SI	40-70%-Strong-Within 60cm of soil surface			
VT_PlotSalinityClass	5VA	5VA	40-70%-Very Strong-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	5VAS	5VAS	40-70%-Very Strong-Bottoms of depressions/sloughs-Sides of hills and slopes			
VT_PlotSalinityClass	5VD	5VD	40-70%-Very Strong-Bottoms of dissections/runways			
VT_PlotSalinityClass	5WA	5WA	40-70%-Weak-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	6	6	>70%-Nonsaline			
VT_PlotSalinityClass	6MA	6MA	>70%-Moderate-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	6MD	6MD	>70%-Moderate-Bottoms of dissections/runways			
VT_PlotSalinityClass	6SA	6SA	>70%-Strong-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	6SAD	6SAD	>70%-Strong-Bottoms of depressions/sloughs-Bottoms of dissections/runways			
VT_PlotSalinityClass	6SAP	6SAP	>70%-Strong-Bottoms of depressions/sloughs-Edges of depressions/sloughs/runways			
VT_PlotSalinityClass	6SAS	6SAS	>70%-Strong-Bottoms of depressions/sloughs-Sides of hills and slopes			
VT_PlotSalinityClass	6SI	6SI	>70%-Strong-Within 60cm of soil surface			
VT_PlotSalinityClass	6VA	6VA	>70%-Very Strong-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	6VAP	6VAP	>70%-Very Strong-Bottoms of depressions/sloughs-Edges of depressions/sloughs/runways			
VT_PlotSalinityClass	6VI	6VI	>70%-Very Strong-Within 60cm of soil surface			
VT_PlotSalinityClass	6WA	6WA	>70%-Weak-Bottoms of depressions/sloughs			
VT_PlotSalinityClass	U	U	Unclassified			
VT_PlotSalinityEvidence	**SalinityEvidence**	**Short_Desc**	**Long_Desc**			
VT_PlotSalinityEvidence	NO	None	None			
VT_PlotSalinityEvidence	STP	STP	Salt tolerant plants			
VT_PlotSalinityEvidence	VS	VS	Visible salt			
VT_PlotShape	**PlotShape**	**Short_Desc**	**Long_Desc**			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotShape	C	Circle	Circle			
VT_PlotShape	I	Irregular	Irregular			
VT_PlotShape	L	Line	Line			
VT_PlotShape	P	Point	Point			
VT_PlotShape	R	Rectangular	Rectangular			
VT_PlotSlopeClass	**SlopeClass**	**Short_Desc**	**Long_Desc**			
VT_PlotSlopeClass	1	1	0-0.5%			
VT_PlotSlopeClass	1-2	1-2	0-2.0%			
VT_PlotSlopeClass	1-3	1-3	0-5.0%			
VT_PlotSlopeClass	2	2	0.5-2.0%			
VT_PlotSlopeClass	2-1	2-1	0.5-0.5%			
VT_PlotSlopeClass	2-3	2-3	0.5-5.0%			
VT_PlotSlopeClass	2-4	2-4	0.5-10.0%			
VT_PlotSlopeClass	2-5	2-5	0.5-15%			
VT_PlotSlopeClass	2-6	2-6	0.5-30%			
VT_PlotSlopeClass	3	3	2.0-5.0%			
VT_PlotSlopeClass	3-2	3-2	2.0-2.0%			
VT_PlotSlopeClass	3-4	3-4	2.0-10.0%			
VT_PlotSlopeClass	3-5	3-5	2.0-15%			
VT_PlotSlopeClass	3-6	3-6	2.0-30%			
VT_PlotSlopeClass	3-7	3-7	2.0-45%			
VT_PlotSlopeClass	4	4	5.0-10.0%			
VT_PlotSlopeClass	4-2	4-2	5.0-2.0%			
VT_PlotSlopeClass	4-3	4-3	5.0-5.0%			
VT_PlotSlopeClass	4-5	4-5	5.0-15%			
VT_PlotSlopeClass	4-6	4-6	5.0-30%			
VT_PlotSlopeClass	4-7	4-7	5.0-45%			
VT_PlotSlopeClass	5	5	10-15%			
VT_PlotSlopeClass	5-3	5-3	10-5.0%			
VT_PlotSlopeClass	5-4	5-4	10-10.0%			
VT_PlotSlopeClass	5-6	5-6	10-30%			
VT_PlotSlopeClass	5-7	5-7	10-45%			
VT_PlotSlopeClass	6	6	15-30%			
VT_PlotSlopeClass	6-3	6-3	15-5.0%			
VT_PlotSlopeClass	6-4	6-4	15-10.0%			
VT_PlotSlopeClass	6-5	6-5	15-15%			
VT_PlotSlopeClass	6-7	6-7	15-45%			
VT_PlotSlopeClass	7	7	30-45%			
VT_PlotSlopeClass	7-3	7-3	30-5.0%			
VT_PlotSlopeClass	7-4	7-4	30-10.0%			
VT_PlotSlopeClass	7-5	7-5	30-15%			
VT_PlotSlopeClass	7-6	7-6	30-30%			
VT_PlotSoilAssociation	**SoilAssociation**	**Short_Desc**	**Long_Desc**			
VT_PlotSoilAssociation	AD	ARDILL	ARDILL			
VT_PlotSoilAssociation	AM	AMULET	AMULET			
VT_PlotSoilAssociation	AN	ALLAN	ALLAN			
VT_PlotSoilAssociation	AO	ARCOLA	ARCOLA			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotSoilAssociation	AP	ANTELOPE	ANTELOPE			
VT_PlotSoilAssociation	AQ	ASQUITH	ASQUITH			
VT_PlotSoilAssociation	AR	ARBORFIELD	ARBORFIELD			
VT_PlotSoilAssociation	AT	ALERT	ALERT			
VT_PlotSoilAssociation	AV	ALLUVIUM	ALLUVIUM			
VT_PlotSoilAssociation	AW	ARBOW	ARBOW			
VT_PlotSoilAssociation	BA	BALCARRES	BALCARRES			
VT_PlotSoilAssociation	BB	BLAINE LAKE	BLAINE LAKE			
VT_PlotSoilAssociation	BC	BONE CREEK	BONE CREEK			
VT_PlotSoilAssociation	BD	BODMIN	BODMIN			
VT_PlotSoilAssociation	BE	BEAR	BEAR			
VT_PlotSoilAssociation	BF	BUFFALO HORN	BUFFALO HORN			
VT_PlotSoilAssociation	BG	BIGGAR	BIGGAR			
VT_PlotSoilAssociation	BH	BATTLE HEIGHTS	BATTLE HEIGHTS			
VT_PlotSoilAssociation	BJ	BELANGER	BELANGER			
VT_PlotSoilAssociation	BK	BROOKING	BROOKING			
VT_PlotSoilAssociation	BL	BAGWA LAKE	BAGWA LAKE			
VT_PlotSoilAssociation	BM	BIG MUDDY	BIG MUDDY			
VT_PlotSoilAssociation	BN	BAINBRIDGE	BAINBRIDGE			
VT_PlotSoilAssociation	BO	BOW RIVER	BOW RIVER			
VT_PlotSoilAssociation	BR	BRADWELL	BRADWELL			
VT_PlotSoilAssociation	BT	BITTERN LAKE	BITTERN LAKE			
VT_PlotSoilAssociation	BU	BREDENBURY	BREDENBURY			
VT_PlotSoilAssociation	BV	BEAVER RIVER	BEAVER RIVER			
VT_PlotSoilAssociation	BX	BEACH	BEACH			
VT_PlotSoilAssociation	BY	BIRSAY	BIRSAY			
VT_PlotSoilAssociation	BZ	BORDERLAND	BORDERLAND			
VT_PlotSoilAssociation	CA	CANORA	CANORA			
VT_PlotSoilAssociation	CB	CUMBERLAND	CUMBERLAND			
VT_PlotSoilAssociation	CC	CATON CREEK	CATON CREEK			
VT_PlotSoilAssociation	CD	CUDWORTH	CUDWORTH			
VT_PlotSoilAssociation	CF	CUT KNIFE	CUT KNIFE			
VT_PlotSoilAssociation	CH	CHAPLIN	CHAPLIN			
VT_PlotSoilAssociation	CK	CLAYBANK	CLAYBANK			
VT_PlotSoilAssociation	CL	CROOKED LAKE	CROOKED LAKE			
VT_PlotSoilAssociation	CM	CRAIGMORE	CRAIGMORE			
VT_PlotSoilAssociation	CN	CARON	CARON			
VT_PlotSoilAssociation	CO	COLLUVIUM	COLLUVIUM			
VT_PlotSoilAssociation	CP	CANOPUS	CANOPUS			
VT_PlotSoilAssociation	CR	CARROT RIVER	CARROT RIVER			
VT_PlotSoilAssociation	CT	CATHKIN	CATHKIN			
VT_PlotSoilAssociation	CX	CLIMAX	CLIMAX			
VT_PlotSoilAssociation	CY	CYPRESS	CYPRESS			
VT_PlotSoilAssociation	DA	DANBURY	DANBURY			
VT_PlotSoilAssociation	DM	DUCK MOUNTAIN	DUCK MOUNTAIN			
VT_PlotSoilAssociation	DO	DORINTOSH	DORINTOSH			
VT_PlotSoilAssociation	DP	DISSECTED PLATEAU	DISSECTED PLATEAU			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotSoilAssociation	DS	DUNE SAND	DUNE SAND			
VT_PlotSoilAssociation	EA	EASTEND	EASTEND			
VT_PlotSoilAssociation	EB	ELLISBORO	ELLISBORO			
VT_PlotSoilAssociation	EC	ECHO	ECHO			
VT_PlotSoilAssociation	ED	ELDERSLEY	ELDERSLEY			
VT_PlotSoilAssociation	EE	ESME	ESME			
VT_PlotSoilAssociation	EG	EDGELEY	EDGELEY			
VT_PlotSoilAssociation	EM	EDAM	EDAM			
VT_PlotSoilAssociation	ES	ESTEVAN	ESTEVAN			
VT_PlotSoilAssociation	ET	ETOMAMI	ETOMAMI			
VT_PlotSoilAssociation	EW	ELSTOW	ELSTOW			
VT_PlotSoilAssociation	EX	EXPOSURE	EXPOSURE			
VT_PlotSoilAssociation	FA	FIFE LAKE	FIFE LAKE			
VT_PlotSoilAssociation	FC	FLAXCOMBE	FLAXCOMBE			
VT_PlotSoilAssociation	FE	FREMANTLE	FREMANTLE			
VT_PlotSoilAssociation	FG	FORGET	FORGET			
VT_PlotSoilAssociation	FK	FLAT LAKE	FLAT LAKE			
VT_PlotSoilAssociation	FP	FEN PEAT	FEN PEAT			
VT_PlotSoilAssociation	FR	FRONTIER	FRONTIER			
VT_PlotSoilAssociation	FT	FLOTTEN	FLOTTEN			
VT_PlotSoilAssociation	FW	FAIRWELL	FAIRWELL			
VT_PlotSoilAssociation	FX	FOX VALLEY	FOX VALLEY			
VT_PlotSoilAssociation	GA	GARRICK	GARRICK			
VT_PlotSoilAssociation	GB	GLENBUSH	GLENBUSH			
VT_PlotSoilAssociation	GD	GRANDORA	GRANDORA			
VT_PlotSoilAssociation	GG	GLEYSOL	GLEYSOL			
VT_PlotSoilAssociation	GH	GH-No Desc	GH-No Desc			
VT_PlotSoilAssociation	GL	GL-No Desc	GL-No Desc			
VT_PlotSoilAssociation	GN	GLENAVON	GLENAVON			
VT_PlotSoilAssociation	GO	GRONLID	GRONLID			
VT_PlotSoilAssociation	GR	GRILL LAKE	GRILL LAKE			
VT_PlotSoilAssociation	GV	GAP VIEW	GAP VIEW			
VT_PlotSoilAssociation	GX	GLEYSOLIC	GLEYSOLIC			
VT_PlotSoilAssociation	GY	GILROY	GILROY			
VT_PlotSoilAssociation	HB	HILLSBOROUGH	HILLSBOROUGH			
VT_PlotSoilAssociation	HC	HORSE CREEK	HORSE CREEK			
VT_PlotSoilAssociation	HD	HOODOO	HOODOO			
VT_PlotSoilAssociation	HF	HELLFIRE	HELLFIRE			
VT_PlotSoilAssociation	HH	HOEY	HOEY			
VT_PlotSoilAssociation	HM	HAMLIN	HAMLIN			
VT_PlotSoilAssociation	HO	HORSEHEAD	HORSEHEAD			
VT_PlotSoilAssociation	HR	HAVERHILL	HAVERHILL			
VT_PlotSoilAssociation	HT	HATTON	HATTON			
VT_PlotSoilAssociation	HW	HILLWASH	HILLWASH			
VT_PlotSoilAssociation	HY	HANLEY	HANLEY			
VT_PlotSoilAssociation	IH	INDIAN HEAD	INDIAN HEAD			
VT_PlotSoilAssociation	IW	INSTOW	INSTOW			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotSoilAssociation	JC	JONES CREEK	JONES CREEK			
VT_PlotSoilAssociation	JX	JAN LAKE	JAN LAKE			
VT_PlotSoilAssociation	KA	KAMSACK	KAMSACK			
VT_PlotSoilAssociation	KD	KINDERSLEY	KINDERSLEY			
VT_PlotSoilAssociation	KE	KELVINGTON	KELVINGTON			
VT_PlotSoilAssociation	KG	KIPLING MARSH	KIPLING MARSH			
VT_PlotSoilAssociation	KH	KETTLEHUT	KETTLEHUT			
VT_PlotSoilAssociation	KK	KEWANOKE	KEWANOKE			
VT_PlotSoilAssociation	KL	KLINTONEL	KLINTONEL			
VT_PlotSoilAssociation	KN	KELSTERN	KELSTERN			
VT_PlotSoilAssociation	KP	KEPPEL	KEPPEL			
VT_PlotSoilAssociation	KR	KRYDOR	KRYDOR			
VT_PlotSoilAssociation	KS	KISTAPISKAW	KISTAPISKAW			
VT_PlotSoilAssociation	KT	KEATLEY	KEATLEY			
VT_PlotSoilAssociation	KW	KAKWA	KAKWA			
VT_PlotSoilAssociation	KY	KELSEY	KELSEY			
VT_PlotSoilAssociation	LB	LONESOME BUTTE	LONESOME BUTTE			
VT_PlotSoilAssociation	LC	LA CORNE	LA CORNE			
VT_PlotSoilAssociation	LE	LESTOCK	LESTOCK			
VT_PlotSoilAssociation	LH	LARK HILL	LARK HILL			
VT_PlotSoilAssociation	LL	LAVALLEE LAKE	LAVALLEE LAKE			
VT_PlotSoilAssociation	LN	LOON RIVER	LOON RIVER			
VT_PlotSoilAssociation	LP	LODGEPOLE	LODGEPOLE			
VT_PlotSoilAssociation	LY	LLOYDMINSTER	LLOYDMINSTER			
VT_PlotSoilAssociation	LZ	LORENZO	LORENZO			
VT_PlotSoilAssociation	MA	MAKWA	MAKWA			
VT_PlotSoilAssociation	MC	MCEACHERN	MCEACHERN			
VT_PlotSoilAssociation	MD	MEADOW LAKE	MEADOW LAKE			
VT_PlotSoilAssociation	ME	MEOTA	MEOTA			
VT_PlotSoilAssociation	MF	MAYFAIR	MAYFAIR			
VT_PlotSoilAssociation	MG	MORGAN	MORGAN			
VT_PlotSoilAssociation	MH	MARSH	MARSH			
VT_PlotSoilAssociation	MM	MOOSE MOUNTAIN	MOOSE MOUNTAIN			
VT_PlotSoilAssociation	MN	MALONECK	MALONECK			
VT_PlotSoilAssociation	MO	MACWORTH	MACWORTH			
VT_PlotSoilAssociation	MP	MOSS PEAT	MOSS PEAT			
VT_PlotSoilAssociation	MR	MELFORT	MELFORT			
VT_PlotSoilAssociation	MT	MEETING LAKE	MEETING LAKE			
VT_PlotSoilAssociation	MU	MURRYDALE	MURRYDALE			
VT_PlotSoilAssociation	MW	MEADOW	MEADOW			
VT_PlotSoilAssociation	NC	NAICAM	NAICAM			
VT_PlotSoilAssociation	NE	NEELBY	NEELBY			
VT_PlotSoilAssociation	NM	NISTUM	NISTUM			
VT_PlotSoilAssociation	NN	NITENAI	NITENAI			
VT_PlotSoilAssociation	NO	NORTH PORTAL	NORTH PORTAL			
VT_PlotSoilAssociation	NP	NIPAWIN	NIPAWIN			
VT_PlotSoilAssociation	NR	NORTHERN LIGHT	NORTHERN LIGHT			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotSoilAssociation	NS	NESLAND LAKE	NESLAND LAKE			
VT_PlotSoilAssociation	NT	NISBET	NISBET			
VT_PlotSoilAssociation	ON	ONION LAKE	ONION LAKE			
VT_PlotSoilAssociation	OX	OXBOW	OXBOW			
VT_PlotSoilAssociation	OY	O'LEARY LAKE	O'LEARY LAKE			
VT_PlotSoilAssociation	PA	PATHLOW	PATHLOW			
VT_PlotSoilAssociation	PE	PERLEY	PERLEY			
VT_PlotSoilAssociation	PH	PHEASANT RUMP	PHEASANT RUMP			
VT_PlotSoilAssociation	PK	PORCUPINE CREEK	PORCUPINE CREEK			
VT_PlotSoilAssociation	PN	PINE	PINE			
VT_PlotSoilAssociation	PP	PORCUPINE PLAIN	PORCUPINE PLAIN			
VT_PlotSoilAssociation	PR	PIPRELL	PIPRELL			
VT_PlotSoilAssociation	PU	PUNNICHY	PUNNICHY			
VT_PlotSoilAssociation	PW	PADDOCKWOOD	PADDOCKWOOD			
VT_PlotSoilAssociation	PY	PELLY	PELLY			
VT_PlotSoilAssociation	QK	QUANTOCK	QUANTOCK			
VT_PlotSoilAssociation	QU	QUILL LAKE	QUILL LAKE			
VT_PlotSoilAssociation	RA	REGINA	REGINA			
VT_PlotSoilAssociation	RB	ROUGHBARK	ROUGHBARK			
VT_PlotSoilAssociation	RC	ROCK CREEK	ROCK CREEK			
VT_PlotSoilAssociation	RM	ROSEMAE	ROSEMAE			
VT_PlotSoilAssociation	RN	RELIANCE	RELIANCE			
VT_PlotSoilAssociation	RO	ROBSART	ROBSART			
VT_PlotSoilAssociation	RU	ROULEAU	ROULEAU			
VT_PlotSoilAssociation	RV	ROCANVILLE	ROCANVILLE			
VT_PlotSoilAssociation	RW	RUNWAY	RUNWAY			
VT_PlotSoilAssociation	SA	SALINE	SALINE			
VT_PlotSoilAssociation	SB	SHELLBROOK	SHELLBROOK			
VT_PlotSoilAssociation	SC	SCEPTRE	SCEPTRE			
VT_PlotSoilAssociation	SD	SONNINGDALE	SONNINGDALE			
VT_PlotSoilAssociation	SF	SWIFT CREEK	SWIFT CREEK			
VT_PlotSoilAssociation	SG	SCOTSGUARD	SCOTSGUARD			
VT_PlotSoilAssociation	SH	SHELL LAKE	SHELL LAKE			
VT_PlotSoilAssociation	SK	SIPANOK	SIPANOK			
VT_PlotSoilAssociation	SL	STURGEON LAKE	STURGEON LAKE			
VT_PlotSoilAssociation	SM	SMEATON	SMEATON			
VT_PlotSoilAssociation	SN	SWINTON	SWINTON			
VT_PlotSoilAssociation	SO	SMOKY BURN	SMOKY BURN			
VT_PlotSoilAssociation	SP	SEDGE PEAT	SEDGE PEAT			
VT_PlotSoilAssociation	SS	SPEERS	SPEERS			
VT_PlotSoilAssociation	ST	SCOTT	SCOTT			
VT_PlotSoilAssociation	SU	SUTHERLAND	SUTHERLAND			
VT_PlotSoilAssociation	SV	SYLVITE	SYLVITE			
VT_PlotSoilAssociation	SW	SWAN PLAIN	SWAN PLAIN			
VT_PlotSoilAssociation	SX	SHORT CREEK	SHORT CREEK			
VT_PlotSoilAssociation	SY	SYLVANIA	SYLVANIA			
VT_PlotSoilAssociation	TA	TANTALLON	TANTALLON			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotSoilAssociation	TG	TIGER HILLS	TIGER HILLS			
VT_PlotSoilAssociation	TH	THUNDER HILL	THUNDER HILL			
VT_PlotSoilAssociation	TI	TISDALE	TISDALE			
VT_PlotSoilAssociation	TK	THICKWOOD	THICKWOOD			
VT_PlotSoilAssociation	TR	TROSSACHS	TROSSACHS			
VT_PlotSoilAssociation	TU	TUXFORD	TUXFORD			
VT_PlotSoilAssociation	TW	TOUCHWOOD	TOUCHWOOD			
VT_PlotSoilAssociation	VA	VALOR	VALOR			
VT_PlotSoilAssociation	VM	VAL MARIE	VAL MARIE			
VT_PlotSoilAssociation	VP	VESPER	VESPER			
VT_PlotSoilAssociation	VR	VERA	VERA			
VT_PlotSoilAssociation	WA	WASECA	WASECA			
VT_PlotSoilAssociation	WB	WELBY	WELBY			
VT_PlotSoilAssociation	WC	WASCANA	WASCANA			
VT_PlotSoilAssociation	WD	WADENA	WADENA			
VT_PlotSoilAssociation	WE	WEIRDALE	WEIRDALE			
VT_PlotSoilAssociation	WF	WHITEFOX	WHITEFOX			
VT_PlotSoilAssociation	WG	WINGELLO	WINGELLO			
VT_PlotSoilAssociation	WH	WHITEWOOD	WHITEWOOD			
VT_PlotSoilAssociation	WK	WYMARK	WYMARK			
VT_PlotSoilAssociation	WM	WOOD MOUNTAIN	WOOD MOUNTAIN			
VT_PlotSoilAssociation	WN	WINDTHORST	WINDTHORST			
VT_PlotSoilAssociation	WP	WAPAWEKKA	WAPAWEKKA			
VT_PlotSoilAssociation	WR	WEYBURN	WEYBURN			
VT_PlotSoilAssociation	WS	WHITESAND	WHITESAND			
VT_PlotSoilAssociation	WT	WATERHEN RIVER	WATERHEN RIVER			
VT_PlotSoilAssociation	WV	WAITVILLE	WAITVILLE			
VT_PlotSoilAssociation	WW	WILLOWS	WILLOWS			
VT_PlotSoilAssociation	WX	WILLOW	WILLOW			
VT_PlotSoilAssociation	WY	WYANDOTTE	WYANDOTTE			
VT_PlotSoilAssociation	YK	YORKTON	YORKTON			
VT_PlotSoilZone	**SoilZone**	**Short_Desc**	**Long_Desc**			
VT_PlotSoilZone	BL	Black	Black			
VT_PlotSoilZone	BR	Brown	Brown			
VT_PlotSoilZone	DB	Dark Brown	Dark Brown			
VT_PlotSoilZone	DG	Dark Gray	Dark Gray			
VT_PlotSoilZone	GR	Gray	Gray			
VT_PlotSoilZone	OF	Other Forest Soils	Other Forest Soils			
VT_PlotStructuralType	**StructuralType**	**Short_Desc**	**Long_Desc**			
VT_PlotStructuralType	GSC	GSC	Grass/shrub complex			
VT_PlotStructuralType	GSL	GSL	Grassland			
VT_PlotStructuralType	HWD	HWD	Hardwood forest			
VT_PlotStructuralType	HWL	HWL	Herbaceous wetland			
VT_PlotStructuralType	MWD	MWD	Mixedwood forest			
VT_PlotStructuralType	NA	NA	Not available/not recorded			
VT_PlotStructuralType	PSH	PSH	Prostrate shrubland			
VT_PlotStructuralType	RCX	RCX	Riparian complex			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotStructuralType	SSH	SSH	Short shrubland			
VT_PlotStructuralType	SWD	SWD	Softwood forest			
VT_PlotStructuralType	TSH	TSH	Tall shrubland			
VT_PlotTexture	**Texture**	**Short_Desc**	**Long_Desc**			
VT_PlotTexture	C	C	Clay			
VT_PlotTexture	CL	CL	Clay loam			
VT_PlotTexture	FCL	FCL	Fine sandy clay loam			
VT_PlotTexture	FL	FL	Fine sandy loam			
VT_PlotTexture	FS	FS	Fine sand			
VT_PlotTexture	G	G	Gravel			
VT_PlotTexture	GL	GL	Gravelly loam			
VT_PlotTexture	GLC	GLC	Gravelly loamy sand			
VT_PlotTexture	GS	GS	Gravelly sand			
VT_PlotTexture	GSL	GSL	Gravelly sandy loam			
VT_PlotTexture	HC	HC	Heavy clay			
VT_PlotTexture	L	L	Loam			
VT_PlotTexture	LFS	LFS	Loamy fine sand			
VT_PlotTexture	LS	LS	Loamy sand			
VT_PlotTexture	ORG	ORG	Organic			
VT_PlotTexture	S	S	Sand			
VT_PlotTexture	SC	SC	Sandy clay			
VT_PlotTexture	SCL	SCL	Sandy clay loam			
VT_PlotTexture	SIC	SIC	Silty clay			
VT_PlotTexture	SICL	SICL	Silty clay loam			
VT_PlotTexture	SIL	SIL	Silt loam			
VT_PlotTexture	SL	SL	Sandy loam			
VT_PlotTexture	VCL	VCL	Very fine sandy clay loam			
VT_PlotTexture	VL	VL	Very fine sandy loam			
VT_PlotTextureClass	**TextureClass**	**Short_Desc**	**Long_Desc**			
VT_PlotTextureClass	C	C	Clay			
VT_PlotTextureClass	C - CL	C - CL	Clay - Clay loam			
VT_PlotTextureClass	C - FCL	C - FCL	Clay - Fine sandy clay loam			
VT_PlotTextureClass	C - FL	C - FL	Clay - Fine sandy loam			
VT_PlotTextureClass	C - FS	C - FS	Clay - Fine sand			
VT_PlotTextureClass	C - GL	C - GL	Clay - Gravelly loam			
VT_PlotTextureClass	C - GSL	C - GSL	Clay - Gravelly sandy loam			
VT_PlotTextureClass	C - HC	C - HC	Clay - Heavy clay			
VT_PlotTextureClass	C – L	C - L	Clay - Loam			
VT_PlotTextureClass	C - LFS	C - LFS	Clay - Loamy fine sand			
VT_PlotTextureClass	C - LS	C - LS	Clay - Loamy sand			
VT_PlotTextureClass	C - O	C - O	Clay - Organic			
VT_PlotTextureClass	C – S	C - S	Clay - Sand			
VT_PlotTextureClass	C - SCL	C - SCL	Clay - Sandy clay loam			
VT_PlotTextureClass	C - SIC	C - SIC	Clay - Silty clay			
VT_PlotTextureClass	C - SICL	C - SICL	Clay - Silty clay loam			
VT_PlotTextureClass	C - SIL	C - SIL	Clay - Silt loam			
VT_PlotTextureClass	C - SL	C - SL	Clay - Sandy loam			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotTextureClass	CL	CL	Clay loam			
VT_PlotTextureClass	CL - C	CL - C	Clay loam - Clay			
VT_PlotTextureClass	CL - FL	CL - FL	Clay loam - Fine sandy loam			
VT_PlotTextureClass	CL - GL	CL - GL	Clay loam - Gravelly loam			
VT_PlotTextureClass	CL - GLS	CL - GLS	Clay loam - Gravelly loamy sand			
VT_PlotTextureClass	CL - GS	CL - GS	Clay loam - Gravelly sand			
VT_PlotTextureClass	CL - GSL	CL - GSL	Clay loam - Gravelly sandy loam			
VT_PlotTextureClass	CL - HC	CL - HC	Clay loam - Heavy clay			
VT_PlotTextureClass	CL - L	CL - L	Clay loam - Loam			
VT_PlotTextureClass	CL - LS	CL - LS	Clay loam - Loamy sand			
VT_PlotTextureClass	CL - O	CL - O	Clay loam - Organic			
VT_PlotTextureClass	CL - S	CL - S	Clay loam - Sand			
VT_PlotTextureClass	CL - SCL	CL - SCL	Clay loam - Sandy clay loam			
VT_PlotTextureClass	CL - SIC	CL - SIC	Clay loam - Silty clay			
VT_PlotTextureClass	CL - SICL	CL - SICL	Clay loam - Silty clay loam			
VT_PlotTextureClass	CL - SIL	CL - SIL	Clay loam - Silt loam			
VT_PlotTextureClass	CL - SL	CL - SL	Clay loam - Sandy loam			
VT_PlotTextureClass	CL - VCL	CL - VCL	Clay loam - Very fine sandy clay loam			
VT_PlotTextureClass	CL - VL	CL - VL	Clay loam - Very fine sandy loam			
VT_PlotTextureClass	CS	CS	Coarse sand			
VT_PlotTextureClass	CS - GSL	CS - GSL	Coarse sand - Gravelly sandy loam			
VT_PlotTextureClass	CS - LS	CS - LS	Coarse sand - Loamy sand			
VT_PlotTextureClass	FCL	FCL	Fine sandy clay loam			
VT_PlotTextureClass	FCL - C	FCL - C	Fine sandy clay loam - Clay			
VT_PlotTextureClass	FCL - CL	FCL - CL	Fine sandy clay loam - Clay loam			
VT_PlotTextureClass	FCL - FL	FCL - FL	Fine sandy clay loam - Fine sandy loam			
VT_PlotTextureClass	FCL - L	FCL - L	Fine sandy clay loam - Loam			
VT_PlotTextureClass	FL	FL	Fine sandy loam			
VT_PlotTextureClass	FL - C	FL - C	Fine sandy loam - Clay			
VT_PlotTextureClass	FL - CL	FL - CL	Fine sandy loam - Clay loam			
VT_PlotTextureClass	FL - CS	FL - CS	Fine sandy loam - Coarse sand			
VT_PlotTextureClass	FL - FCL	FL - FCL	Fine sandy loam - Fine sandy clay loam			
VT_PlotTextureClass	FL - FS	FL - FS	Fine sandy loam - Fine sand			
VT_PlotTextureClass	FL - GL	FL - GL	Fine sandy loam - Gravelly loam			
VT_PlotTextureClass	FL - GLS	FL - GLS	Fine sandy loam - Gravelly loamy sand			
VT_PlotTextureClass	FL - GS	FL - GS	Fine sandy loam - Gravelly sand			
VT_PlotTextureClass	FL - GSL	FL - GSL	Fine sandy loam - Gravelly sandy loam			
VT_PlotTextureClass	FL - L	FL - L	Fine sandy loam - Loam			
VT_PlotTextureClass	FL - LFS	FL - LFS	Fine sandy loam - Loamy fine sand			
VT_PlotTextureClass	FL - LS	FL - LS	Fine sandy loam - Loamy sand			
VT_PlotTextureClass	FL - S	FL - S	Fine sandy loam - Sand			
VT_PlotTextureClass	FL - SCL	FL - SCL	Fine sandy loam - Sandy clay loam			
VT_PlotTextureClass	FL - SICL	FL - SICL	Fine sandy loam - Silty clay loam			
VT_PlotTextureClass	FL - SIL	FL - SIL	Fine sandy loam - Silt loam			
VT_PlotTextureClass	FL - SL	FL - SL	Fine sandy loam - Sandy loam			
VT_PlotTextureClass	FL - VCL	FL - VCL	Fine sandy loam - Very fine sandy clay loam			
VT_PlotTextureClass	FL - VL	FL - VL	Fine sandy loam - Very fine sandy loam			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotTextureClass	FS	FS	Fine sand			
VT_PlotTextureClass	FS - C	FS - C	Fine sand - Clay			
VT_PlotTextureClass	FS - CL	FS - CL	Fine sand - Clay loam			
VT_PlotTextureClass	FS - FL	FS - FL	Fine sand - Fine sandy loam			
VT_PlotTextureClass	FS - L	FS - L	Fine sand - Loam			
VT_PlotTextureClass	FS - LFS	FS - LFS	Fine sand - Loamy fine sand			
VT_PlotTextureClass	FS - LS	FS - LS	Fine sand - Loamy sand			
VT_PlotTextureClass	FS - O	FS - O	Fine sand - Organic			
VT_PlotTextureClass	FS - S	FS - S	Fine sand - Sand			
VT_PlotTextureClass	FS - SICL	FS - SICL	Fine sand - Silty clay loam			
VT_PlotTextureClass	FS - SIL	FS - SIL	Fine sand - Silt loam			
VT_PlotTextureClass	FS - SL	FS - SL	Fine sand - Sandy loam			
VT_PlotTextureClass	GL	GL	Gravelly loam			
VT_PlotTextureClass	GL - C	GL - C	Gravelly loam - Clay			
VT_PlotTextureClass	GL - CL	GL - CL	Gravelly loam - Clay loam			
VT_PlotTextureClass	GL - FL	GL - FL	Gravelly loam - Fine sandy loam			
VT_PlotTextureClass	GL - GLS	GL - GLS	Gravelly loam - Gravelly loamy sand			
VT_PlotTextureClass	GL - GSL	GL - GSL	Gravelly loam - Gravelly sandy loam			
VT_PlotTextureClass	GL - L	GL - L	Gravelly loam - Loam			
VT_PlotTextureClass	GL - LS	GL - LS	Gravelly loam - Loamy sand			
VT_PlotTextureClass	GL - S	GL - S	Gravelly loam - Sand			
VT_PlotTextureClass	GL - SCL	GL - SCL	Gravelly loam - Sandy clay loam			
VT_PlotTextureClass	GL - SL	GL - SL	Gravelly loam - Sandy loam			
VT_PlotTextureClass	GLS	GLS	Gravelly loamy sand			
VT_PlotTextureClass	GLS - FL	GLS - FL	Gravelly loamy sand - Fine sandy loam			
VT_PlotTextureClass	GLS - GL	GLS - GL	Gravelly loamy sand - Gravelly loam			
VT_PlotTextureClass	GLS - GSL	GLS - GSL	Gravelly loamy sand - Gravelly sandy loam			
VT_PlotTextureClass	GLS - L	GLS - L	Gravelly loamy sand - Loam			
VT_PlotTextureClass	GLS - LS	GLS - LS	Gravelly loamy sand - Loamy sand			
VT_PlotTextureClass	GLS - S	GLS - S	Gravelly loamy sand - Sand			
VT_PlotTextureClass	GLS - SL	GLS - SL	Gravelly loamy sand - Sandy loam			
VT_PlotTextureClass	GLS - VL	GLS - VL	Gravelly loamy sand - Very fine sandy loam			
VT_PlotTextureClass	GS	GS	Gravelly sand			
VT_PlotTextureClass	GS - CL	GS - CL	Gravelly sand - Clay loam			
VT_PlotTextureClass	GS - CS	GS - CS	Gravelly sand - Coarse sand			
VT_PlotTextureClass	GS - GL	GS - GL	Gravelly sand - Gravelly loam			
VT_PlotTextureClass	GS - GSL	GS - GSL	Gravelly sand - Gravelly sandy loam			
VT_PlotTextureClass	GS - L	GS - L	Gravelly sand - Loam			
VT_PlotTextureClass	GS - LS	GS - LS	Gravelly sand - Loamy sand			
VT_PlotTextureClass	GS - O	GS - O	Gravelly sand - Organic			
VT_PlotTextureClass	GS - SICL	GS - SICL	Gravelly sand - Silty clay loam			
VT_PlotTextureClass	GS - SL	GS - SL	Gravelly sand - Sandy loam			
VT_PlotTextureClass	GSL	GSL	Gravelly sandy loam			
VT_PlotTextureClass	GSL - C	GSL - C	Gravelly sandy loam - Clay			
VT_PlotTextureClass	GSL - CL	GSL - CL	Gravelly sandy loam - Clay loam			
VT_PlotTextureClass	GSL - CS	GSL - CS	Gravelly sandy loam - Coarse sand			
VT_PlotTextureClass	GSL - FL	GSL - FL	Gravelly sandy loam - Fine sandy loam			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotTextureClass	GSL - GL	GSL - GL	Gravelly sandy loam - Gravelly loam			
VT_PlotTextureClass	GSL - GLS	GSL - GLS	Gravelly sandy loam - Gravelly loamy sand			
VT_PlotTextureClass	GSL - GS	GSL - GS	Gravelly sandy loam - Gravelly sand			
VT_PlotTextureClass	GSL - L	GSL - L	Gravelly sandy loam - Loam			
VT_PlotTextureClass	GSL - LFS	GSL - LFS	Gravelly sandy loam - Loamy fine sand			
VT_PlotTextureClass	GSL - LS	GSL - LS	Gravelly sandy loam - Loamy sand			
VT_PlotTextureClass	GSL - S	GSL - S	Gravelly sandy loam - Sand			
VT_PlotTextureClass	GSL - SIL	GSL - SIL	Gravelly sandy loam - Silt loam			
VT_PlotTextureClass	GSL - SL	GSL - SL	Gravelly sandy loam - Sandy loam			
VT_PlotTextureClass	GSL - VL	GSL - VL	Gravelly sandy loam - Very fine sandy loam			
VT_PlotTextureClass	HC	HC	Heavy clay			
VT_PlotTextureClass	HC - C	HC - C	Heavy clay - Clay			
VT_PlotTextureClass	HC - CL	HC - CL	Heavy clay - Clay loam			
VT_PlotTextureClass	HC - GL	HC - GL	Heavy clay - Gravelly loam			
VT_PlotTextureClass	HC - GLS	HC - GLS	Heavy clay - Gravelly loamy sand			
VT_PlotTextureClass	HC - L	HC - L	Heavy clay - Loam			
VT_PlotTextureClass	HC - S	HC - S	Heavy clay - Sand			
VT_PlotTextureClass	HC - SCL	HC - SCL	Heavy clay - Sandy clay loam			
VT_PlotTextureClass	HC - SIC	HC - SIC	Heavy clay - Silty clay			
VT_PlotTextureClass	HC - SICL	HC - SICL	Heavy clay - Silty clay loam			
VT_PlotTextureClass	HC - SIL	HC - SIL	Heavy clay - Silt loam			
VT_PlotTextureClass	HC - SL	HC - SL	Heavy clay - Sandy loam			
VT_PlotTextureClass	L	L	Loam			
VT_PlotTextureClass	L - C	L - C	Loam - Clay			
VT_PlotTextureClass	L - CL	L - CL	Loam - Clay loam			
VT_PlotTextureClass	L - CS	L - CS	Loam - Coarse sand			
VT_PlotTextureClass	L - FCL	L - FCL	Loam - Fine sandy clay loam			
VT_PlotTextureClass	L - FL	L - FL	Loam - Fine sandy loam			
VT_PlotTextureClass	L - FS	L - FS	Loam - Fine sand			
VT_PlotTextureClass	L - GL	L - GL	Loam - Gravelly loam			
VT_PlotTextureClass	L - GLS	L - GLS	Loam - Gravelly loamy sand			
VT_PlotTextureClass	L - GS	L - GS	Loam - Gravelly sand			
VT_PlotTextureClass	L - GSL	L - GSL	Loam - Gravelly sandy loam			
VT_PlotTextureClass	L - HC	L - HC	Loam - Heavy clay			
VT_PlotTextureClass	L - LS	L - LS	Loam - Loamy sand			
VT_PlotTextureClass	L - O	L - O	Loam - Organic			
VT_PlotTextureClass	L - S	L - S	Loam - Sand			
VT_PlotTextureClass	L - SCL	L - SCL	Loam - Sandy clay loam			
VT_PlotTextureClass	L - SIC	L - SIC	Loam - Silty clay			
VT_PlotTextureClass	L - SICL	L - SICL	Loam - Silty clay loam			
VT_PlotTextureClass	L - SIL	L - SIL	Loam - Silt loam			
VT_PlotTextureClass	L - SL	L - SL	Loam - Sandy loam			
VT_PlotTextureClass	L - VCL	L - VCL	Loam - Very fine sandy clay loam			
VT_PlotTextureClass	L - VL	L - VL	Loam - Very fine sandy loam			
VT_PlotTextureClass	LFS	LFS	Loamy fine sand			
VT_PlotTextureClass	LFS - FL	LFS - FL	Loamy fine sand - Fine sandy loam			
VT_PlotTextureClass	LFS - FS	LFS - FS	Loamy fine sand - Fine sand			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotTextureClass	LFS - L	LFS - L	Loamy fine sand - Loam			
VT_PlotTextureClass	LFS - LS	LFS - LS	Loamy fine sand - Loamy sand			
VT_PlotTextureClass	LFS - S	LFS - S	Loamy fine sand - Sand			
VT_PlotTextureClass	LFS - SIL	LFS - SIL	Loamy fine sand - Silt loam			
VT_PlotTextureClass	LFS - SL	LFS - SL	Loamy fine sand - Sandy loam			
VT_PlotTextureClass	LFS - VL	LFS - VL	Loamy fine sand - Very fine sandy loam			
VT_PlotTextureClass	LS	LS	Loamy sand			
VT_PlotTextureClass	LS - C	LS - C	Loamy sand - Clay			
VT_PlotTextureClass	LS - CL	LS - CL	Loamy sand - Clay loam			
VT_PlotTextureClass	LS - CS	LS - CS	Loamy sand - Coarse sand			
VT_PlotTextureClass	LS - FL	LS - FL	Loamy sand - Fine sandy loam			
VT_PlotTextureClass	LS - FS	LS - FS	Loamy sand - Fine sand			
VT_PlotTextureClass	LS - GL	LS - GL	Loamy sand - Gravelly loam			
VT_PlotTextureClass	LS - GLS	LS - GLS	Loamy sand - Gravelly loamy sand			
VT_PlotTextureClass	LS - GS	LS - GS	Loamy sand - Gravelly sand			
VT_PlotTextureClass	LS - GSL	LS - GSL	Loamy sand - Gravelly sandy loam			
VT_PlotTextureClass	LS - L	LS - L	Loamy sand - Loam			
VT_PlotTextureClass	LS - O	LS - O	Loamy sand - Organic			
VT_PlotTextureClass	LS - S	LS - S	Loamy sand - Sand			
VT_PlotTextureClass	LS - SCL	LS - SCL	Loamy sand - Sandy clay loam			
VT_PlotTextureClass	LS - SICL	LS - SICL	Loamy sand - Silty clay loam			
VT_PlotTextureClass	LS - SIL	LS - SIL	Loamy sand - Silt loam			
VT_PlotTextureClass	LS - SL	LS - SL	Loamy sand - Sandy loam			
VT_PlotTextureClass	LS - VL	LS - VL	Loamy sand - Very fine sandy loam			
VT_PlotTextureClass	O	O	Organic			
VT_PlotTextureClass	O - C	O - C	Organic - Clay			
VT_PlotTextureClass	O - CL	O - CL	Organic - Clay loam			
VT_PlotTextureClass	O - FL	O - FL	Organic - Fine sandy loam			
VT_PlotTextureClass	O - FS	O - FS	Organic - Fine sand			
VT_PlotTextureClass	O - GSL	O - GSL	Organic - Gravelly sandy loam			
VT_PlotTextureClass	O - HC	O - HC	Organic - Heavy clay			
VT_PlotTextureClass	O - L	O - L	Organic - Loam			
VT_PlotTextureClass	O - LFS	O - LFS	Organic - Loamy fine sand			
VT_PlotTextureClass	O - LS	O - LS	Organic - Loamy sand			
VT_PlotTextureClass	O - S	O - S	Organic - Sand			
VT_PlotTextureClass	O - SICL	O - SICL	Organic - Silty clay loam			
VT_PlotTextureClass	O - SL	O - SL	Organic - Sandy loam			
VT_PlotTextureClass	S	S	Sand			
VT_PlotTextureClass	S - C	S - C	Sand - Clay			
VT_PlotTextureClass	S - CL	S - CL	Sand - Clay loam			
VT_PlotTextureClass	S - FL	S - FL	Sand - Fine sandy loam			
VT_PlotTextureClass	S - FS	S - FS	Sand - Fine sand			
VT_PlotTextureClass	S - GLS	S - GLS	Sand - Gravelly loamy sand			
VT_PlotTextureClass	S - GS	S - GS	Sand - Gravelly sand			
VT_PlotTextureClass	S - GSL	S - GSL	Sand - Gravelly sandy loam			
VT_PlotTextureClass	S - L	S - L	Sand - Loam			
VT_PlotTextureClass	S - LS	S - LS	Sand - Loamy sand			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotTextureClass	S - O	S - O	Sand - Organic			
VT_PlotTextureClass	S - SIC	S - SIC	Sand - Silty clay			
VT_PlotTextureClass	S - SIL	S - SIL	Sand - Silt loam			
VT_PlotTextureClass	S - SL	S - SL	Sand - Sandy loam			
VT_PlotTextureClass	S - VL	S - VL	Sand - Very fine sandy loam			
VT_PlotTextureClass	SCL	SCL	Sandy clay loam			
VT_PlotTextureClass	SCL - C	SCL - C	Sandy clay loam - Clay			
VT_PlotTextureClass	SCL - CL	SCL - CL	Sandy clay loam - Clay loam			
VT_PlotTextureClass	SCL - FCL	SCL - FCL	Sandy clay loam - Fine sandy clay loam			
VT_PlotTextureClass	SCL - FL	SCL - FL	Sandy clay loam - Fine sandy loam			
VT_PlotTextureClass	SCL - L	SCL - L	Sandy clay loam - Loam			
VT_PlotTextureClass	SCL - LFS	SCL - LFS	Sandy clay loam - Loamy fine sand			
VT_PlotTextureClass	SCL - LS	SCL - LS	Sandy clay loam - Loamy sand			
VT_PlotTextureClass	SCL - S	SCL - S	Sandy clay loam - Sand			
VT_PlotTextureClass	SCL - SICL	SCL - SICL	Sandy clay loam - Silty clay loam			
VT_PlotTextureClass	SCL - SIL	SCL - SIL	Sandy clay loam - Silt loam			
VT_PlotTextureClass	SCL - SL	SCL - SL	Sandy clay loam - Sandy loam			
VT_PlotTextureClass	SIC	SIC	Silty clay			
VT_PlotTextureClass	SIC - C	SIC - C	Silty clay - Clay			
VT_PlotTextureClass	SIC - CL	SIC - CL	Silty clay - Clay loam			
VT_PlotTextureClass	SIC - FL	SIC - FL	Silty clay - Fine sandy loam			
VT_PlotTextureClass	SIC - HC	SIC - HC	Silty clay - Heavy clay			
VT_PlotTextureClass	SIC - L	SIC - L	Silty clay - Loam			
VT_PlotTextureClass	SIC - SICL	SIC - SICL	Silty clay - Silty clay loam			
VT_PlotTextureClass	SIC - SIL	SIC - SIL	Silty clay - Silt loam			
VT_PlotTextureClass	SIC - SL	SIC - SL	Silty clay - Sandy loam			
VT_PlotTextureClass	SICL	SICL	Silty clay loam			
VT_PlotTextureClass	SICL - C	SICL - C	Silty clay loam - Clay			
VT_PlotTextureClass	SICL - CL	SICL - CL	Silty clay loam - Clay loam			
VT_PlotTextureClass	SICL - FL	SICL - FL	Silty clay loam - Fine sandy loam			
VT_PlotTextureClass	SICL - GS	SICL - GS	Silty clay loam - Gravelly sand			
VT_PlotTextureClass	SICL - GSL	SICL - GSL	Silty clay loam - Gravelly sandy loam			
VT_PlotTextureClass	SICL - HC	SICL - HC	Silty clay loam - Heavy clay			
VT_PlotTextureClass	SICL - L	SICL - L	Silty clay loam - Loam			
VT_PlotTextureClass	SICL - LS	SICL - LS	Silty clay loam - Loamy sand			
VT_PlotTextureClass	SICL - O	SICL - O	Silty clay loam - Organic			
VT_PlotTextureClass	SICL - SCL	SICL - SCL	Silty clay loam - Sandy clay loam			
VT_PlotTextureClass	SICL - SIC	SICL - SIC	Silty clay loam - Silty clay			
VT_PlotTextureClass	SICL - SIL	SICL - SIL	Silty clay loam - Silt loam			
VT_PlotTextureClass	SICL - SL	SICL - SL	Silty clay loam - Sandy loam			
VT_PlotTextureClass	SICL - VCL	SICL - VCL	Silty clay loam - Very fine sandy clay loam			
VT_PlotTextureClass	SICL - VL	SICL - VL	Silty clay loam - Very fine sandy loam			
VT_PlotTextureClass	SIL	SIL	Silt loam			
VT_PlotTextureClass	SIL - C	SIL - C	Silt loam - Clay			
VT_PlotTextureClass	SIL - CL	SIL - CL	Silt loam - Clay loam			
VT_PlotTextureClass	SIL - FL	SIL - FL	Silt loam - Fine sandy loam			
VT_PlotTextureClass	SIL - GLS	SIL - GLS	Silt loam - Gravelly loamy sand			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotTextureClass	SIL - GSL	SIL - GSL	Silt loam - Gravelly sandy loam			
VT_PlotTextureClass	SIL - HC	SIL - HC	Silt loam - Heavy clay			
VT_PlotTextureClass	SIL - L	SIL - L	Silt loam - Loam			
VT_PlotTextureClass	SIL - LS	SIL - LS	Silt loam - Loamy sand			
VT_PlotTextureClass	SIL - S	SIL - S	Silt loam - Sand			
VT_PlotTextureClass	SIL - SCL	SIL - SCL	Silt loam - Sandy clay loam			
VT_PlotTextureClass	SIL - SIC	SIL - SIC	Silt loam - Silty clay			
VT_PlotTextureClass	SIL - SICL	SIL - SICL	Silt loam - Silty clay loam			
VT_PlotTextureClass	SIL - SL	SIL - SL	Silt loam - Sandy loam			
VT_PlotTextureClass	SIL - VL	SIL - VL	Silt loam - Very fine sandy loam			
VT_PlotTextureClass	SL	SL	Sandy loam			
VT_PlotTextureClass	SL - C	SL - C	Sandy loam - Clay			
VT_PlotTextureClass	SL - CL	SL - CL	Sandy loam - Clay loam			
VT_PlotTextureClass	SL - CS	SL - CS	Sandy loam - Coarse sand			
VT_PlotTextureClass	SL - FCL	SL - FCL	Sandy loam - Fine sandy clay loam			
VT_PlotTextureClass	SL - FL	SL - FL	Sandy loam - Fine sandy loam			
VT_PlotTextureClass	SL - FS	SL - FS	Sandy loam - Fine sand			
VT_PlotTextureClass	SL - GL	SL - GL	Sandy loam - Gravelly loam			
VT_PlotTextureClass	SL - GLS	SL - GLS	Sandy loam - Gravelly loamy sand			
VT_PlotTextureClass	SL - GS	SL - GS	Sandy loam - Gravelly sand			
VT_PlotTextureClass	SL - GSL	SL - GSL	Sandy loam - Gravelly sandy loam			
VT_PlotTextureClass	SL - HC	SL - HC	Sandy loam - Heavy clay			
VT_PlotTextureClass	SL - L	SL - L	Sandy loam - Loam			
VT_PlotTextureClass	SL - LFS	SL - LFS	Sandy loam - Loamy fine sand			
VT_PlotTextureClass	SL - LS	SL - LS	Sandy loam - Loamy sand			
VT_PlotTextureClass	SL - O	SL - O	Sandy loam - Organic			
VT_PlotTextureClass	SL - S	SL - S	Sandy loam - Sand			
VT_PlotTextureClass	SL - SCL	SL - SCL	Sandy loam - Sandy clay loam			
VT_PlotTextureClass	SL - SIC	SL - SIC	Sandy loam - Silty clay			
VT_PlotTextureClass	SL - SICL	SL - SICL	Sandy loam - Silty clay loam			
VT_PlotTextureClass	SL - SIL	SL - SIL	Sandy loam - Silt loam			
VT_PlotTextureClass	SL - VL	SL - VL	Sandy loam - Very fine sandy loam			
VT_PlotTextureClass	VCL	VCL	Very fine sandy clay loam			
VT_PlotTextureClass	VCL - C	VCL - C	Very fine sandy clay loam - Clay			
VT_PlotTextureClass	VCL - FCL	VCL - FCL	Very fine sandy clay loam - Fine sandy clay loam			
VT_PlotTextureClass	VCL - L	VCL - L	Very fine sandy clay loam - Loam			
VT_PlotTextureClass	VCL - SICL	VCL - SICL	Very fine sandy clay loam - Silty clay loam			
VT_PlotTextureClass	VCL - VL	VCL - VL	Very fine sandy clay loam - Very fine sandy loam			
VT_PlotTextureClass	VL	VL	Very fine sandy loam			
VT_PlotTextureClass	VL - C	VL - C	Very fine sandy loam - Clay			
VT_PlotTextureClass	VL - CL	VL - CL	Very fine sandy loam - Clay loam			
VT_PlotTextureClass	VL - FL	VL - FL	Very fine sandy loam - Fine sandy loam			
VT_PlotTextureClass	VL - FS	VL - FS	Very fine sandy loam - Fine sand			
VT_PlotTextureClass	VL - GL	VL - GL	Very fine sandy loam - Gravelly loam			
VT_PlotTextureClass	VL - GLS	VL - GLS	Very fine sandy loam - Gravelly loamy sand			
VT_PlotTextureClass	VL - GSL	VL - GSL	Very fine sandy loam - Gravelly sandy loam			
VT_PlotTextureClass	VL - L	VL - L	Very fine sandy loam - Loam			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_PlotTextureClass	VL - LFS	VL - LFS	Very fine sandy loam - Loamy fine sand			
VT_PlotTextureClass	VL - LS	VL - LS	Very fine sandy loam - Loamy sand			
VT_PlotTextureClass	VL - S	VL - S	Very fine sandy loam - Sand			
VT_PlotTextureClass	VL - SCL	VL - SCL	Very fine sandy loam - Sandy clay loam			
VT_PlotTextureClass	VL - SIC	VL - SIC	Very fine sandy loam - Silty clay			
VT_PlotTextureClass	VL - SICL	VL - SICL	Very fine sandy loam - Silty clay loam			
VT_PlotTextureClass	VL - SIL	VL - SIL	Very fine sandy loam - Silt loam			
VT_PlotTextureClass	VL - SL	VL - SL	Very fine sandy loam - Sandy loam			
VT_PlotTextureClass	VL - VCL	VL - VCL	Very fine sandy loam - Very fine sandy clay loam			
VT_PlotWeightLayers	**Layer**	**Short_Desc**	**Long_Desc**			
VT_PlotWeightLayers	FRB	Forbs	Above-ground biomass of forbs			
VT_PlotWeightLayers	GRA	Graminoids	Above-ground biomass of graminoids			
VT_PlotWeightLayers	HRB	Herbs	Above-ground biomass of herbs (i.e. graminoids + forbs)			
VT_PlotWeightLayers	LTR	Litter	Weight of litter			
VT_PlotWeightLayers	PSB	Prostr shrub browse	Browse from prostrate shrubs (current-year's growth only)			
VT_PlotWeightLayers	SSB	Short shrub browse	Browse from short shrubs (current-year's growth only)			
VT_PlotWeightLayers	STR	Shrubs/trees	The tree and shrub layers combined			
VT_PlotWeightLayers	TSB	Tall shrub browse	Browse from tall shrubs (current-year's growth only)			
VT_PlotWeightLayers	USB	Undiff shrub browse	Browse from shrubs (undifferentiated by height) (current-year's growth only)			
VT_QuarterSection	**QuarterSection**	**Short_Desc**	**Long_Desc**			
VT_QuarterSection	E	E	Eastern Half			
VT_QuarterSection	N	N	Northern Half			
VT_QuarterSection	NE	NE	Northeast			
VT_QuarterSection	NW	NW	Northwest			
VT_QuarterSection	S	S	Southern Half			
VT_QuarterSection	SE	SE	Southeast			
VT_QuarterSection	SW	SW	Southwest			
VT_QuarterSection	W	W	Western Half			
VT_SampleDimensionType	**DimensionType**	**Short_Desc**	**Long_Desc**			
VT_SampleDimensionType	DI	Diameter	Diameter of a circular plot			
VT_SampleDimensionType	FP	Frame Points	Frame Points			
VT_SampleDimensionType	LL	Line Length	Length of a line plot			
VT_SampleDimensionType	S1	Side 1 length	Length of the longer side of a rectangular plot			
VT_SampleDimensionType	S2	Side 2 length	Length of the shorter side of a rectangular plot			
VT_SampleLocationType	**LocationType**	**Short_Desc**	**Long_Desc**			
VT_SampleLocationType	E1	End1	Location of the first end of a line plot			
VT_SampleLocationType	E2	End2	Location of the second end of the line plot			
VT_SampleLocationType	PT	Point	Location of a point plot			
VT_Species	Acronym	Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
VT_Species	Section **8.4**					
VT_Species_Form	**Growth_Form**	**Short_Desc**	**Long_Desc**			
VT_Species_Form	bryophyte	Bryophyte	Bryophyte			
VT_Species_Form	cactus	Cactus	Cactus			
VT_Species_Form	erect shrub	Erect Shrub	Erect Shrub			
VT_Species_Form	forb	Forb	Forb			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_Species_Form	graminoid	Graminoid	Graminoid			
VT_Species_Form	lichen	Lichen	Lichen			
VT_Species_Form	prostrate shrub	Prostrate Shrub	Prostrate Shrub			
VT_Species_Form	tree	Tree	Tree			
VT_StableUnstable	**StableUnstable**	**Short_Desc**	**Long_Desc**			
VT_StableUnstable	S	S	Stable			
VT_StableUnstable	U	U	Unstable			
VT_SurveyHealthMethod	**HealthAssessmentMethod**	**Short_Desc**	**Long_Desc**	**Assessment_Year**		
VT_SurveyHealthMethod	ABLEL	ABLEL	Alberta lentic long form	2007		
VT_SurveyHealthMethod	ABLOL	ABLOL	Alberta lotic long form	2007		
VT_SurveyHealthMethod	ABTPA	ABTPA	Alberta tame pasture	2005		
VT_SurveyHealthMethod	NONE	NONE	None			
VT_SurveyHealthMethod	RGCON	RGCON	Range condition	1990		
VT_SurveyHealthMethod	SKFOR	SKFOR	Saskatchewan forest indicator	2008		
VT_SurveyHealthMethod	SKGRS	SKGRS	Saskatchewan grassland	2008		
VT_SurveyHealthMethod	SKLEN	SKLEN	Sasktchewan lentic	2008		
VT_SurveyHealthMethod	SKLOT	SKLOT	Saskatchewan lotic	2008		
VT_SurveyHealthMethod	SKQUA	SKQUA	Saskatchewan forest quantitative	2008		
VT_SurveyPurpose	**Purpose**	**Short_Desc**	**Long_Desc**			
VT_SurveyPurpose	DET	Detailed Assessment	Detailed, usually quantitative survey for one-time assessment			
VT_SurveyPurpose	MON	Monitoring	Detailed, usually quantitative survey for long-term monitoring			
VT_SurveyPurpose	RES	Research	Detaile, usually quantitative survey for research purposes			
VT_SurveyPurpose	RPD	Rapid Assessment	Less detailed or less quantitative survey for a one-time assessment			
VT_TameGrazingIntensity	**GrazingIntensity**	**Short_Desc**	**Long_Desc**			
VT_TameGrazingIntensity	H	H	Heavily grazed			
VT_TameGrazingIntensity	L-M	L-M	Lightly to moderately grazed			
VT_TameGrazingIntensity	M	M	Moderately grazed			
VT_TameGrazingIntensity	M-H	M-H	Moderately to heavily grazed			
VT_TameGrazingIntensity	U	U	Ungrazed			
VT_TameGrazingIntensity	U-L	U-L	Ungrazed to lightly grazed			
VT_TamePastureType	**PastureType**	**Short_Desc**	**Long_Desc**			
VT_TamePastureType	MT	Modified tame pasture	Modified tame pasture			
VT_TamePastureType	TP	Tame pasture	Tame pasture			
VT_TameTrend	**Trend**	**Short_Desc**	**Long_Desc**			
VT_TameTrend	DN	Downward	Downward			
VT_TameTrend	ST	Stable	Stable			
VT_TameTrend	UK	Unknown	Unknown			
VT_TameTrend	UP	Upward	Upward			
VT_TrueFalse	**TrueFalse**	**Short_Desc**	**Long_Desc**			
VT_TrueFalse	F	F	False			
VT_TrueFalse	T	T	True			
VT_TrueFalseNc	**TrueFalse**	**Short_Desc**	**Long_Desc**			
VT_TrueFalseNc	F	F	False			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_TrueFalseNc	N	NC	NC			
VT_TrueFalseNc	T	T	True			
VT_TrueFalseNcNa	**TrueFalse**	**Short_Desc**	**Long_Desc**			
VT_TrueFalseNcNa	F	F	False			
VT_TrueFalseNcNa	N	NC	NC			
VT_TrueFalseNcNa	T	T	True			
VT_TrueFalseNcNa	X	NA	Not applicable			
VT_TrueFalseUnk	**TrueFalse**	**Short_Desc**	**Long_Desc**			
VT_TrueFalseUnk	F	F	False			
VT_TrueFalseUnk	T	T	True			
VT_TrueFalseUnk	U	UNK	Unknown			
VT_VegDataLevelStored	**DataLevelStored**	**Short_Desc**	**Long_Desc**			
VT_VegDataLevelStored	P	Plot	Vegetation data for the whole plot are stored (in PLOTSTRUCTURE, PLOTSPECIES, etc.)			
VT_VegDataLevelStored	S	Sample	Vegetation data for replicate samples are stored (in SAMPLESTRUCTURE, SAMPLESPECIES, etc.)			
VT_VegetationLayers	**VegetationLayers**	**Short_Desc**	**Long_Desc**			
VT_VegetationLayers	ALL	All Layers	All layers combined (as in Braun-Blanquet releves)			
VT_VegetationLayers	CAC	Cactus	Cactus			
VT_VegetationLayers	CBM	Clubmoss	The clubmoss portion of the herb layer			
VT_VegetationLayers	EMG	Emergent	Emergent			
VT_VegetationLayers	FCM	Forbs with clubmoss	The forb portion of the herb layer, inclding clubmoss			
VT_VegetationLayers	FLT	Floating	Floating			
VT_VegetationLayers	FWO	Forbs without clubmoss	The forb portion of the herb layer, but excluding clubmoss			
VT_VegetationLayers	GRA	Graminoids	The graminoid (i.e. grass-like) portion of the herb layer			
VT_VegetationLayers	HCM	Herbs with clubmoss	The herb layer (graminoids with forbs), including clubmoss (Selaginella densa)			
VT_VegetationLayers	HWO	Herbs without clubmoss	The herb layer, excluding clubmoss			
VT_VegetationLayers	MLI	Moss/lichen	Mosses and lichens as a layer			
VT_VegetationLayers	OTH	Other	Some combination of layers not covered by the above definitions			
VT_VegetationLayers	PSH	Prostr shrubs	The prostrate shrub layer (eg. Creeping juniper, bearberry)			
VT_VegetationLayers	SHC	Shrubs/herbs with clubmoss	The shrub and herb layers combined, including clubmoss			
VT_VegetationLayers	SHW	Shrubs/herbs without clubmoss	The shrub and herb layers combined, but excluding clubmoss (e.g. as a traditional range condition sampling)			
VT_VegetationLayers	SMG	Submergent	Submergent			
VT_VegetationLayers	SSH	Short shrubs	The short shrub layer, consisting of erect woody plants with max height < 1.5m (approx.)			
VT_VegetationLayers	STR	Shrubs/trees	The tree and shrub layers combined			
VT_VegetationLayers	TRE	Trees	The tree layer, consisting of woody plants with max height > 5m (approx.)			
VT_VegetationLayers	TSH	Tall shrubs	The tall shrub layer, consisting of woody plants with max height 1.5-5m (approx.)			
VT_VegetationLayers	USH	Undiff shrubs	The shrub layer, not differentiated by height class			
VT_VegetationMeasure	**VegetationMeasure**	**Short_Desc**	**Long_Desc**			

Table Name	Code Field/Values	Short Description Field/Values	Long Description Field/Values	Other 1	Other 2	Other 3
VT_VegetationMeasure	BAR	Basal area	Area (m2/ha) of the bases of plants of the species; generally only used for trees			
VT_VegetationMeasure	BCV	Basal cover	Percent of the ground area covered by the bases of plants of the species; record 0.1% for trace amounts			
VT_VegetationMeasure	BMS	Biomass	Weight (kg/ha) of above-ground material of the species			
VT_VegetationMeasure	CCV	Canopy cover	Percent of the ground area covered by vertical projection of the canopies of plants of the species			
VT_VegetationMeasure	DEN	Density	Number per unit area (stems/ha) of plants of the species			
VT_VegetationMeasure	FCV	Foliar cover	Percent of ground area covered by vertical projections of leaves/stems/flowers of plants of the species			
VT_VegetationMeasure	FRQ	Frequency	Percent of samples in which the species is present			
VT_VegetationMeasure	PBM	% biomass	Percent contribution of the species to total biomass of the layer; record 0.1% for trace amounts.			
VT_VegetationMeasure	PRS	Presence	Presence/absense of the species			
VT_VegetationMeasure	UCV	Unspecified cover	Percent cover, but not known whether foliar or canopy			
VT_VegSamplingMethod	**SamplingMethod**	**Short_Desc**	**Long_Desc**			
VT_VegSamplingMethod	LI	Line-intercept	Line-intercept method to estimate cover			
VT_VegSamplingMethod	PE	Plot estimate	Composition measured over the whole plot area, without measuring replicate samples			
VT_VegSamplingMethod	PF	Point-frame	Point-frame method to estimate cover			
VT_VegSamplingMethod	QD	Quadrats	Composition measured within a series of replicate quadrats			
VT_VegSamplingMethod	VR	Prism sweep	Prism sweep			
VT_VegTaxonResolution	**TaxonResolution**	**Short_Desc**	**Long_Desc**			
VT_VegTaxonResolution	1	only dominant species	Only the dominant or key species identified			
VT_VegTaxonResolution	2	only common species	Many species identified, but species with low abundance ignored			
VT_VegTaxonResolution	3	some genera lumped	Most species identified, but with some lumping and genera			
VT_VegTaxonResolution	4	some species lumped	Most species identified, but some lumping of species in particular genera			
VT_VegTaxonResolution	5	ID all species	All species identified			
VT_VegTaxonResolution	6	not applicable	Non-vascular plants not surveyed in this task			
VT_VegVascularAuthority	**VascularAuthority**	**Short_Desc**	**Long_Desc**			
VT_VegVascularAuthority	HM2006	Harms 2006	Harms 2006			

8.4 Vegetation Species Codes

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
ABIE BAL	Abies balsamea	balsam fir	tree	bF
ABIT ABI	Abietinella abietina	wiry fern moss	bryophyte	
ABUT THE	Abutilon theophrasti	velvet-leaf	forb	
ACAR BAD	Acarospora badiofusca	cracked lichen	lichen	
ACAR CER	Acarospora cervina	cracked lichen	lichen	
ACAR CON	Acarospora contigua	golden cobblestone lichen	lichen	
ACAR FLA	Acarospora flava	gold cobblestone lichen	lichen	
ACAR FUS	Acarospora fuscata	brown cobblestone lichen	lichen	
ACAR GLA	Acarospora glaucocarpa	rimmed cobblestone lichen	lichen	
ACAR MOL	Acarospora molybdina	molybdenum cracked lichen	lichen	
ACAR SCH	Acarospora schleicheri	soil paint lichen	lichen	
ACAR SMA	Acarospora smaragdula	cracked lichen	lichen	
ACAR SPP	Acarospora spp.		lichen	
ACAR STR	Acarospora strigata	hoary cobblestone lichen	lichen	
ACAR VER	Acarospora veronensis	cracked lichen	lichen	
ACAU MUT	Acaulon muticum		bryophyte	
ACAU MUT RUF	Acaulon muticum var. rufescens	acaulon moss	bryophyte	
ACAU SPP	Acaulon spp.		bryophyte	
ACAU TRI	Acaulon triquetrum		bryophyte	
ACER GIN	Acer ginnala	Amur maple	tree	
ACER NEG	Acer negundo	Manitoba maple	tree	mM
ACER NEG INT	Acer negundo var. interius	Manitoba maple	tree	
ACER NEG NEG	Acer negundo var. negundo	Manitoba maple	tree	
ACER NEG VIO	Acer negundo var. violaceum	Manitoba maple	tree	
ACER SAC	Acer saccharinum	silver maple	tree	
ACER SPI	Acer spicatum	mountain maple	erect shrub	
ACER SPP	Acer spp.	maple (genus)	tree	
ACHI ALP	Achillea alpina	Siberian yarrow	forb	
ACHI MIL	Achillea millefolium	common yarrow	forb	
ACHI MIL MEG	Achillea millefolium var. megacephala	large-headed woolly yarrow	forb	
ACHI MIL MIL	Achillea millefolium var. millefolium	common yarrow	forb	
ACHI MIL NIG	Achillea millefolium var. nigrescens	northern yarrow	forb	
ACHI MIL OCC	Achillea millefolium var. occidentalis	common yarrow	forb	
ACHI SPP	Achillea spp.	yarrow (genus)	forb	
ACHN HYM	Achnatherum hymenoides	Indian rice-grass	graminoid	
ACHN NEL	Achnatherum nelsonii	Columbia needle-grass	graminoid	
ACHN NEL DOR	Achnatherum nelsonii ssp. dorei	Columbia needle-grass	graminoid	
ACHN NEL NEL	Achnatherum nelsonii ssp. nelsonii	big Columbia needle-grass	graminoid	
ACHN RIC	Achnatherum richardsonii	Richardson’s needle-grass	graminoid	
ACHN SPP	Achnatherum spp.	needle-grass (Achnatherum genus)	graminoid	
ACOR AME	Acorus americanus	sweet-flag	forb	
ACRO REP	Acroptilon repens	Russian knapweed	forb	
ACTA RUB	Actaea rubra	baneberry	forb	
ADOX MOS	Adoxa moschatellina	moschatel	forb	
AEGO POD	Aegopodium podagraria	bishop’s gout-weed	forb	
AGAS FOE	Agastache foeniculum	blue giant-hyssop	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
AGOS GLA	Agoseris glauca	false dandelion	forb	
AGOS GLA DAS	Agoseris glauca var. dasycephala	hairy false dandelion	forb	
AGOS GLA GLA	Agoseris glauca var. glauca	smooth false dandelion	forb	
AGRI STR	Agrimonia striata	grooved agrimony	forb	
AGRO CRI	Agropyron cristatum	crested wheat-grass	graminoid	
AGRO FRA	Agropyron fragile	Siberian wheat-grass	graminoid	
AGRO FRA SIB	Agropyron fragile ssp. sibiricum	Siberian wheat-grass	graminoid	
AGRO SPP	Agropyron spp.	wheat-grass (Agropyron genus)	graminoid	
AGRS GIT	Agrostemma githago	purple cockle	forb	
AGRT EXA	Agrostis exarata	spike bent-grass	graminoid	
AGRT GIG	Agrostis gigantea	redtop	graminoid	
AGRT MER	Agrostis mertensii	northern bent-grass	graminoid	
AGRT SCA	Agrostis scabra	rough hairgrass	graminoid	
AGRT SPP	Agrostis spp.	bent-grass (genus)	graminoid	
AGRT STO	Agrostis stolonifera	creeping bent-grass	graminoid	
ALEC NIG	Alectoria nigricans	gray witch's hair	lichen	
ALEC OCH	Alectoria ochroleuca	green witch's hair	lichen	
ALEC SAR	Alectoria sarmentosa	witch's hair	lichen	
ALEC SPP	Alectoria spp.		lichen	
ALIS GRA	Alisma gramineum	narrow-leaved water-plantain	forb	
ALIS GRA GRA	Alisma gramineum var. gramineum	narrow-leaved water-plantain	forb	
ALIS SPP	Alisma spp.	water-plantain (genus)	forb	
ALIS SUB	Alisma subcordatum	small water-plantain	forb	
ALIS TRI	Alisma triviale	common waterplantain	forb	
ALLI CER	Allium cernuum	nodding onion	forb	
ALLI GEY	Allium geyeri	Geyer’s onion	forb	
ALLI GEY GEY	Allium geyeri var. geyeri	Geyer’s onion	forb	
ALLI SCH	Allium schoenoprasum	chives	forb	
ALLI SCH SCH	Allium schoenoprasum var. schoenoprasum	cultivated chives	forb	
ALLI SCH SIB	Allium schoenoprasum var. sibiricum	Siberian wild chives	forb	
ALLI SPP	Allium spp.	onion (genus)	forb	
ALLI STE	Allium stellatum	pink wild onion	forb	
ALLI TEX	Allium textile	prairie onion	forb	
ALMU PAU	Almutaster pauciflorus	few-flowered aster	forb	
ALNU INC	Alnus incana	river alder	erect shrub	
ALNU INC RUG	Alnus incana ssp. rugosa	eastern river alder	erect shrub	
ALNU INC TEN	Alnus incana ssp. tenuifolia	western river alder	erect shrub	
ALNU SPP	Alnus spp.	alder (genus)	erect shrub	
ALNU VIR	Alnus viridis	green alder	erect shrub	
ALNU VIR CRI	Alnus viridis ssp. crispa	green alder	erect shrub	
ALOI BRE	Aloina brevirostris	aloina moss	bryophyte	
ALOP AEQ	Alopecurus aequalis	short-awned foxtail	graminoid	
ALOP AEQ AEQ	Alopecurus aequalis var. aequalis	short-awned foxtail	graminoid	
ALOP ALP	Alopecurus alpinus	alpine foxtail	graminoid	
ALOP ARU	Alopecurus arundinaceus	creeping meadow-foxtail	graminoid	
ALOP CAR	Alopecurus carolinianus	Carolina meadow-foxtail	graminoid	
ALOP GEN	Alopecurus geniculatus	marsh foxtail	graminoid	
ALOP GEN GEN	Alopecurus geniculatus var. geniculatus	marsh foxtail	graminoid	
ALOP PRA	Alopecurus pratensis	field meadow-foxtail	graminoid	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
ALOP SPP	Alopecurus spp.	meadow-foxtail (genus)	graminoid	
ALYS ALY	Alyssum alyssoides	pale alyssum	forb	
ALYS DES	Alyssum desertorum	yellow alyssum	forb	
ALYS DES DES	Alyssum desertorum var. desertorum	yellow alyssum	forb	
ALYS SPP	Alyssum spp.	alyssum (genus)	forb	
AMAN PUN	Amandinea punctata	tiny button lichen	lichen	
AMAR ALB	Amaranthus albus	tumbleweed	forb	
AMAR BLI	Amaranthus blitoides	mat pigweed	forb	
AMAR CAL	Amaranthus californicus	California amaranth	forb	
AMAR POW	Amaranthus powellii	Powell's pigweed	forb	
AMAR RET	Amaranthus retroflexus	redroot pigweed	forb	
AMAR SPP	Amaranthus spp.	pigweed (genus)	forb	
AMBL SER	Amblystegium serpens	amblystegium moss	bryophyte	
AMBL SER JUR	Amblystegium serpens var. juratzkanum		bryophyte	
AMBL SPP	Amblystegium spp.		bryophyte	
AMBL VAR	Amblystegium varium		bryophyte	
AMBR ACA	Ambrosia acanthicarpa	flat-spine bur-ragweed	forb	
AMBR ART	Ambrosia artemisiifolia	annual ragweed	forb	
AMBR ART ELA	Ambrosia artemisiifolia var. elatior	annual ragweed	forb	
AMBR PSI	Ambrosia psilostachya	perennial ragweed	forb	
AMBR SPP	Ambrosia spp.	ragweed (genus)	forb	
AMBR TRI	Ambrosia trifida	giant ragweed	forb	
AMBR TRI TRI	Ambrosia trifida var. trifida	giant ragweed	forb	
AMEL ALN	Amelanchier alnifolia	saskatoon	erect shrub	
AMEL ALN ALN	Amelanchier alnifolia var. alnifolia	saskatoon	erect shrub	
AMEL HUM	Amelanchier humilis	low service-berry	erect shrub	
AMEL SAN	Amelanchier sanguinea	round-leaved service-berry	erect shrub	
AMEL SPP	Amelanchier spp.	service-berry (genus)	erect shrub	
AMER ROT	Amerorchis rotundifolia	round-leaved orchid	forb	
AMPH LAP	Amphidium lapponicum		bryophyte	
AMSI MEN	Amsinckia menziesii	small-flowered fiddle-neck	forb	
AMSI MEN INT	Amsinckia menziesii var. intermedia	small-flowered fiddle-neck	forb	
ANAG ARV	Anagallis arvensis	scarlet pimpernel	forb	
ANAG ARV ARV	Anagallis arvensis ssp. arvensis	scarlet pimpernel	forb	
ANAG MIN	Anagallis minima	chaffweed	forb	
ANAG SPP	Anagallis spp.	pimpernel (genus)	forb	
ANAP MAR	Anaphalis margaritacea	common pearly everlasting	forb	
ANCH ARV	Anchusa arvensis	small bugloss	forb	
ANDE CRA	Andreaea crassinervia		bryophyte	
ANDE RUP	Andreaea rupestris		bryophyte	
ANDE RUP PAP	Andreaea rupestris var. papillosa		bryophyte	
ANDE SPP	Andreaea spp.		bryophyte	
ANDP GER	Andropogon gerardii	big bluestem	graminoid	
ANDP HAL	Andropogon hallii	sand bluestem	graminoid	
ANDP SPP	Andropogon spp.	bluestem (genus)	graminoid	
ANDR POL	Andromeda polifolia	bog-rosemary	erect shrub	
ANDR POL GLA	Andromeda polifolia var. glaucophylla	glaucous-leaved bog-rosemary	erect shrub	
ANDR POL POL	Andromeda polifolia var. polifolia	bog-rosemary	erect shrub	
ANDS OCC	Androsace occidentalis	western pygmy-flower	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
ANDS SEP	Androsace septentrionalis	northern pygmyflower	forb	
ANDS SEP PUB	Androsace septentrionalis ssp. puberulenta	northern pygmyflower	forb	
ANDS SEP SEP	Androsace septentrionalis ssp. septentrionalis	northern pygmyflower	forb	
ANDS SEP SUB	Androsace septentrionalis ssp. subulifera	northern pygmyflower	forb	
ANDS SPP	Androsace spp.	pygmy-flower (genus)	forb	
ANEM CAN	Anemone canadensis	Canada anemone	forb	
ANEM CYL	Anemone cylindrica	long-headed anemone	forb	
ANEM MUL	Anemone multifida	cut-leaf anemone	forb	
ANEM MUL HUD	Anemone multifida var. hudsoniana	cut-leaf anemone	forb	
ANEM MUL RIC	Anemone multifida var. richardsiana	cut-leaf anemone	forb	
ANEM PAR	Anemone parviflora	small-flowered anemone	forb	
ANEM PAR PAR	Anemone parviflora var. parviflora	small-flowered anemone	forb	
ANEM QUI	Anemone quinquefolia	wood anemone	forb	
ANEM QUI BIF	Anemone quinquefolia var. bifolia	wood anemone	forb	
ANEM RIC	Anemone richardsonii	Richardson’s anemone	forb	
ANEM SPP	Anemone spp.	anemone (genus)	forb	
ANEM VIR	Anemone virginiana	riverbank anemone	forb	
ANEM VIR CYL	Anemone virginiana var. cylindroidea	riverbank anemone	forb	
ANEM VIR VIR	Anemone virginiana var. virginiana	riverbank anemone	forb	
ANET GRA	Anethum graveolens	dill	forb	
ANOM ROS	Anomodon rostratus		bryophyte	
ANTE ANA	Antennaria anaphaloides	tall pussytoes	forb	
ANTE COR	Antennaria corymbosa	corymbose pussytoes	forb	
ANTE DIM	Antennaria dimorpha	cushion pussytoes	forb	
ANTE HOW	Antennaria howellii	Howell’s pussytoes	forb	
ANTE HOW CAN	Antennaria howellii ssp. canadensis	Canada pussytoes	forb	
ANTE HOW HOW	Antennaria howellii ssp. howellii	Howell’s pussytoes	forb	
ANTE HOW NEO	Antennaria howellii ssp. neodioica	northern pussytoes	forb	
ANTE MIC	Antennaria microphylla	small-leaved pussytoes	forb	
ANTE NEG	Antennaria neglecta	prairie pussytoes	forb	
ANTE NEG NEG	Antennaria neglecta var. neglecta	prairie pussytoes	forb	
ANTE PAR	Antennaria parvifolia	low pussytoes	forb	
ANTE PUL	Antennaria pulcherrima	showy pussytoes	forb	
ANTE PUL PUL	Antennaria pulcherrima ssp. pulcherrima	showy pussytoes	forb	
ANTE ROS	Antennaria rosea	rosy pussytoes	forb	
ANTE ROS ARI	Antennaria rosea ssp. arida	arid pussytoes	forb	
ANTE ROS PUL	Antennaria rosea ssp. pulvinata	pulvinate pussytoes	forb	
ANTE ROS ROS	Antennaria rosea ssp. rosea	rosy pussytoes	forb	
ANTE SPP	Antennaria spp.	pussytoes (genus)	forb	
ANTE UMB	Antennaria umbrinella	umber pussytoes	forb	
ANTH COT	Anthemis cotula	stinking mayweed	forb	
ANTX HIR	Anthoxanthum hirtum	sweet grass	graminoid	
ANTX HIR ARC	Anthoxanthum hirtum ssp. arcticum	sweet grass	graminoid	
APOC AND	Apocynum androsaemifolium	spreading dogbane	forb	
APOC CAN	Apocynum cannabinum	Indian hemp	forb	
APOC CAN HYP	Apocynum cannabinum var. hypericifolium	Indian hemp	forb	
APOC SPP	Apocynum spp.	dogbane (genus)	forb	
AQUI BRE	Aquilegia brevistyla	small-flowered columbine	forb	
AQUI CAN	Aquilegia canadensis	Canada columbine	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
AQUI SPP	Aquilegia spp.	columbine (genus)	forb	
ARAB PYC	Arabis pycnocarpa	hairy rock-cress	forb	
ARAB PYC PYC	Arabis pycnocarpa ssp. pycnocarpa	hairy rock-cress	forb	
ARAL HIS	Aralia hispida	bristly sarsaparilla	forb	
ARAL NUD	Aralia nudicaulis	wild sarsaparilla	forb	
ARAL SPP	Aralia spp.	sarsaparilla (genus)	forb	
ARBD ARE	Arabidopsis arenicola	arctic rock-cress	forb	
ARBD LYR	Arabidopsis lyrata	lyre-leaved rock-cress	forb	
ARBD LYR KAM	Arabidopsis lyrata ssp. kamchatica	lyre-leaved rock-cress	forb	
ARBD LYR LYR	Arabidopsis lyrata var. lyrata	lyre-leaved rock-cress	forb	
ARBD SPP	Arabidopsis spp.	rock-cress (Arabidopsis genus)	forb	
ARCE AME	Arceuthobium americanum	dwarf mistletoe	forb	
ARCE PUS	Arceuthobium pusillum	spruce dwarf mistletoe	forb	
ARCE SPP	Arceuthobium spp.	dwarf mistletoe (genus)	forb	
ARCO CEN	Arctoparmelia centrifuga	concentric ring lichen	lichen	
ARCO INC	Arctoparmelia incurva	ring lichen	lichen	
ARCO SEP	Arctoparmelia separata	rippled ring lichen	lichen	
ARCO SPP	Arctoparmelia spp.		lichen	
ARCT ALP	Arctostaphylos alpina	black alpine bearberry	prostrate shrub	
ARCT ALP ALP	Arctostaphylos alpina var. alpina	black alpine bearberry	prostrate shrub	
ARCT RUB	Arctostaphylos rubra	red alpine bearberry	prostrate shrub	
ARCT SPP	Arctostaphylos spp.	bearberry (genus)	prostrate shrub	
ARCT UVA	Arctostaphylos uva-ursi	common bearberry	prostrate shrub	
AREN SER	Arenaria serpyllifolia	thyme-leaved sandwort	forb	
AREN SER SER	Arenaria serpyllifolia ssp. serpyllifolia	thyme-leaved sandwort	forb	
ARET BUL	Arethusa bulbosa	dragon's-mouth	forb	
ARGE POL	Argemone polyanthemos	white prickly poppy	forb	
ARGT ANS	Argentina anserina	silverweed	forb	
ARIS PUR	Aristida purpurea	red three-awn	graminoid	
ARIS PUR LON	Aristida purpurea var. longiseta	red three-awn	graminoid	
ARME MAR	Armeria maritima	inland sea-thrift	forb	
ARME MAR INT	Armeria maritima ssp. interior	inland sea-thrift	forb	
ARMO RUS	Armoracia rusticana	horse-radish	forb	
ARNI ANG	Arnica angustifolia	narrow-leaved arnica	forb	
ARNI ANG ANG	Arnica angustifolia ssp. angustifolia	narrow-leaved arnica	forb	
ARNI CHA	Arnica chamissonis	chamisso's arnica	forb	
ARNI COR	Arnica cordifolia	heart-leaf arnica	forb	
ARNI FUL	Arnica fulgens	shining arnica	forb	
ARNI LON	Arnica lonchophylla	spear-leaved arnica	forb	
ARNI SOR	Arnica sororia	twin arnica	forb	
ARNI SPP	Arnica spp.	arnica (genus)	forb	
ARTE ABR	Artemisia abrotanum	southernwood	forb	
ARTE ABS	Artemisia absinthium	absinthe	forb	
ARTE BIE	Artemisia biennis	biennial wormwood	forb	
ARTE BIE BIE	Artemisia biennis var. biennis	biennial wormwood	forb	
ARTE BOR	Artemisia borealis	northern wormwood	forb	
ARTE CAM	Artemisia campestris	plains wormwood	forb	
ARTE CAM CAN	Artemisia campestris ssp. canadensis	Canada wormwood	forb	
ARTE CAM CAU	Artemisia campestris ssp. caudata	plains wormwood	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
ARTE CAM PAC	Artemisia campestris ssp. pacifica	western plains wormwood	forb	
ARTE CAN	Artemisia cana	silver sagebrush	erect shrub	
ARTE CAN CAN	Artemisia cana ssp. cana	silver sagebrush	erect shrub	
ARTE DRA	Artemisia dracunculus	linear-leaved wormwood	forb	
ARTE FRI	Artemisia frigida	pasture sage	forb	
ARTE LON	Artemisia longifolia	long-leaved sage	forb	
ARTE LUD	Artemisia ludoviciana	prairie sage	forb	
ARTE LUD LUD	Artemisia ludoviciana var. ludoviciana	prairie sage	forb	
ARTE SPP	Artemisia spp.	wormwood (genus)	forb	
ARTE TIL	Artemisia tilesii	Tilesius' wormwood	forb	
ARTE VUL	Artemisia vulgaris	common wormwood	forb	
ARTE VUL VUL	Artemisia vulgaris var. vulgaris	common wormwood	forb	
ARTH CAE	Arthonia caesia	frosted comma lichen	lichen	
ARTH MED	Arthonia mediella	dot lichen	lichen	
ARTH PAT	Arthonia patellulata	comma lichen	lichen	
ARTH RAD	Arthonia radiata	asterisk lichen	lichen	
ARTH SPA	Arthonia spadicea	comma lichen	lichen	
ARTH SPP	Arthonia spp.		lichen	
ARTH VIN	Arthonia vinosa	comma lichen	lichen	
ARTM LAP	Arctium lappa	greater burdock	forb	
ARTM MIN	Arctium minus	lesser burdock	forb	
ARTM SPP	Arctium spp.	burdock (genus)	forb	
ARTM TOM	Arctium tomentosum	woolly burdock	forb	
ARTR POP	Arthrosporum populorum		lichen	
ASCL OVA	Asclepias ovalifolia	oval-leaf milkweed	forb	
ASCL SPE	Asclepias speciosa	showy milkweed	forb	
ASCL SPP	Asclepias spp.	milkweed (genus)	forb	
ASCL SYR	Asclepias syriaca	silky milkweed	forb	
ASCL VER	Asclepias verticillata	whorled milkweed	forb	
ASCL VIR	Asclepias viridiflora	green milkweed	forb	
ASCL VIR LIN	Asclepias viridiflora var. linearis	narrow-leaved green milkweed	forb	
ASCL VIR VIR	Asclepias viridiflora var. viridiflora	green milkweed	forb	
ASPA OFF	Asparagus officinalis	garden asparagus	forb	
ASPE PRO	Asperugo procumbens	German madwort	forb	
ASPI ALI	Aspicilia aliena	alien rimmed lichen	lichen	
ASPI CAE	Aspicilia caesiocinerea	rimmed lichen	lichen	
ASPI CAL	Aspicilia calcarea	calcareous rimmed lichen	lichen	
ASPI CIN	Aspicilia cinerea	cinder lichen	lichen	
ASPI CON	Aspicilia contorta	chiseled sunken disk lichen	lichen	
ASPI HIS	Aspicilia hispida	desert vagabond	lichen	
ASPI SPP	Aspicilia spp.		lichen	
ASPI SUB	Aspicilia subradians	sunken disk lichen	lichen	
ASPI SUP	Aspicilia supertegens	sunken disk lichen	lichen	
ASPI VER	Aspicilia verrucigera	sunken disk lichen	lichen	
ASTO PHA	Astomum phascoides		bryophyte	
ASTR AGR	Astragalus agrestis	field milk-vetch	forb	
ASTR ALP	Astragalus alpinus	alpine milk-vetch	forb	
ASTR ALP ALP	Astragalus alpinus var. alpinus	alpine milk-vetch	forb	
ASTR AME	Astragalus americanus	American milk-vetch	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
ASTR AUS	Astragalus australis	Indian milk-vetch	forb	
ASTR BIS	Astragalus bisulcatus	two-grooved milk-vetch	forb	
ASTR BIS BIS	Astragalus bisulcatus var. bisulcatus	two-grooved milk-vetch	forb	
ASTR BOD	Astragalus bodinii	Bodin’s milk-vetch	forb	
ASTR CAN	Astragalus canadensis	Canadian milk-vetch	forb	
ASTR CAN CAN	Astragalus canadensis var. canadensis	Canadian milk-vetch	forb	
ASTR CIC	Astragalus cicer	cicer milk-vetch	forb	
ASTR CRA	Astragalus crassicarpus	ground-plum	forb	
ASTR CRA CRA	Astragalus crassicarpus var. crassicarpus	ground-plum	forb	
ASTR DRU	Astragalus drummondii	Drummond’s milk-vetch	forb	
ASTR EUC	Astragalus eucosmus	elegant milk-vetch	forb	
ASTR FLE	Astragalus flexuosus	pliant milk-vetch	forb	
ASTR FLE FLE	Astragalus flexuosus var. flexuosus	pliant milk-vetch	forb	
ASTR GIL	Astragalus gilviflorus	cushion milk-vetch	forb	
ASTR GIL GIL	Astragalus gilviflorus var. gilviflorus	cushion milk-vetch	forb	
ASTR GRA	Astragalus gracilis	slender milk-vetch	forb	
ASTR KEN	Astragalus kentrophyta	prickly milk-vetch	forb	
ASTR KEN KEN	Astragalus kentrophyta var. kentrophyta	prickly milk-vetch	forb	
ASTR LAX	Astragalus laxmannii	ascending purple milk-vetch	forb	
ASTR LAX ROB	Astragalus laxmannii var. robustior	ascending purple milk-vetch	forb	
ASTR LOT	Astragalus lotiflorus	lotus milk-vetch	forb	
ASTR MIS	Astragalus missouriensis	Missouri milk-vetch	forb	
ASTR MIS MIS	Astragalus missouriensis var. missouriensis	Missouri milk-vetch	forb	
ASTR PEC	Astragalus pectinatus	narrow-leaved milk-vetch	forb	
ASTR PUR	Astragalus purshii	Pursh’s milk-vetch	forb	
ASTR PUR PUR	Astragalus purshii var. purshii	Pursh’s milk-vetch	forb	
ASTR RAC	Astragalus racemosus	racemose milk-vetch	forb	
ASTR RAC RAC	Astragalus racemosus var. racemosus	racemose milk-vetch	forb	
ASTR SPA	Astragalus spatulatus	tufted milk-vetch	forb	
ASTR SPP	Astragalus spp.	milk-vetch (genus)	forb	
ASTR TEN	Astragalus tenellus	loose-flowered milk-vetch	forb	
ASTR VEX	Astragalus vexilliflexus	bentflowered milk-vetch	forb	
ASTR VEX VEX	Astragalus vexilliflexus var. vexilliflexus	bentflowered milk-vetch	forb	
ATHY FIL	Athyrium filix-femina	lady-fern	forb	
ATHY FIL ANG	Athyrium filix-femina var. angustum	eastern lady-fern	forb	
ATHY FIL CYC	Athyrium filix-femina var. cyclosorum	western lady-fern	forb	
ATRC SEL	Atrichum selwynii		bryophyte	
ATRI ARG	Atriplex argentea	silverscale	forb	
ATRI ARG ARG	Atriplex argentea var. argentea	silverscale	forb	
ATRI AUC	Atriplex aucheri	Russian orache	forb	
ATRI DIO	Atriplex dioica	saline saltbush	forb	
ATRI GAR	Atriplex gardneri	Gardner's saltbush	forb	
ATRI GAR APT	Atriplex gardneri var. aptera	Nelson's saltbush	forb	
ATRI GAR GAR	Atriplex gardneri var. gardneri	Gardner's saltbush	forb	
ATRI HET	Atriplex heterosperma	two-scale saltbush	forb	
ATRI HOR	Atriplex hortensis	garden orache	forb	
ATRI OBL	Atriplex oblongifolia	oblong-leaf orache	forb	
ATRI PAT	Atriplex patula	spreading saltbush	forb	
ATRI POW	Atriplex powellii	Powell’s saltbush	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
ATRI PRO	Atriplex prostrata	halbert-leaf saltbush	forb	
ATRI ROS	Atriplex rosea	tumbling orache	forb	
ATRI SPP	Atriplex spp.	saltbush (genus)	forb	
ATRI SUC	Atriplex suckleyi	rillscale	forb	
ATRI TRU	Atriplex truncata	wedge-leaved saltbush	forb	
AULA TUR	Aulacomnium turgidum		bryophyte	
AVEN FAT	Avena fatua	wild oats	graminoid	
AVEN SAT	Avena sativa	cultivated oats	graminoid	
AVEN SPP	Avena spp.	oats (genus)	graminoid	
AVNU HOO	Avenula hookeri	Hooker's oat-grass	graminoid	
AXYR AMA	Axyris amaranthoides	Russian pigweed	forb	
BACI AKO	Bacidia akompsa	dot lichen	lichen	
BACI BAG	Bacidia bagliettoana	dot lichen	lichen	
BACI BEC	Bacidia beckhausii	dot lichen	lichen	
BACI CHL	Bacidia chlorantha	comet-spored lichen	lichen	
BACI DEC	Bacidia declinis	dot lichen	lichen	
BACI GLO	Bacidia globulosa	dot lichen	lichen	
BACI HEG	Bacidia hegetschweileri	dot lichen	lichen	
BACI IGN	Bacidia igniarii	dot lichen	lichen	
BACI SPP	Bacidia spp.		lichen	
BAEO CAR	Baeomyces carneus	beret lichen	lichen	
BAEO RUF	Baeomyces rufus	beret lichen	lichen	
BAEO SPP	Baeomyces spp.		lichen	
BARB ORT	Barbarea orthoceras	American winter-cress	forb	
BARB SPP	Barbarea spp.	winter-cress (genus)	forb	
BARB VUL	Barbarea vulgaris	common winter-cress	forb	
BART POM	Bartramia pomiformis		bryophyte	
BASS HYS	Bassia hyssopifolia	five-hook bassia	forb	
BECK SYZ	Beckmannia syzigachne	American slough grass	graminoid	
BERB VUL	Berberis vulgaris	common barberry	graminoid	
BERT INC	Berteroa incana	hoary alyssum	forb	
BESS WYO	Besseya wyomingensis	Wyoming kitten-tails	forb	
BETA VUL	Beta vulgaris	garden beet	forb	
BETA VUL VUL	Beta vulgaris ssp. vulgaris	garden beet	forb	
BETU GLA	Betula glandulosa	bog birch	erect shrub	
BETU NAN	Betula nana	arctic dwarf birch	erect shrub	
BETU NAN EXI	Betula nana ssp. exilis	arctic dwarf birch	erect shrub	
BETU NEO	Betula neoalaskana	Alaska white birch	tree	
BETU OCC	Betula occidentalis	river birch	erect shrub	
BETU PAP	Betula papyrifera	white birch	tree	wB
BETU PAP PAP	Betula papyrifera var. papyrifera	white birch	tree	
BETU PUM	Betula pumila	swamp birch	erect shrub	
BETU PUM GLA	Betula pumila var. glandulifera	swamp birch	erect shrub	
BETU SPP	Betula spp.	birch (genus)	erect shrub	
BIAT CUP	Biatora cuprea	dot lichen	lichen	
BIAT SPH	Biatora sphaeroides	dot lichen	lichen	
BIAT SPP	Biatora spp.		lichen	
BIAT VER	Biatora vernalis	dot lichen	lichen	
BIDE BEC	Bidens beckii	water-marigold	forb	

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BIDE CER	Bidens cernua	nodding beggarticks	forb	
BIDE FRO	Bidens frondosa	tall beggarticks	forb	
BIDE SPP	Bidens spp.	beggarticks (genus)	forb	
BIDE VUL	Bidens vulgata	downy beggarticks	forb	
BIST VIV	Bistorta viviparum	alpine bistort	forb	
BLYS RUF	Blysmopsis rufa	red bulrush	graminoid	
BOEC DIV	Boechera divaricarpa	purple rock-cress	forb	
BOEC DRU	Boechera drummondii	Drummond's rock-cress	forb	
BOEC HOL	Boechera holboellii	Holboell's rock-cress	forb	
BOEC HOL BOI	Boechera holboellii var. boivinii	Boivin's rock-cress	forb	
BOEC HOL COL	Boechera holboellii var. collinsii	Holboell's rock-cress	forb	
BOEC HOL PIN	Boechera holboellii var. pinetorum	Holboell's rock-cress	forb	
BOEC HOL RET	Boechera holboellii var. retrofracta	reflexed rock-cress	forb	
BOEC SPP	Boechera spp.	rock-cress (Boechera genus)	forb	
BOLB FLU	Bolboschoenus fluviatilis	river bulrush	graminoid	
BOLB MAR	Bolboschoenus maritimus	prairie bulrush	graminoid	
BOLB MAR PAL	Bolboschoenus maritimus ssp. paludosus	prairie bulrush	graminoid	
BOLB SPP	Bolboschoenus spp.	bulrush (Bolboschoenus genus)	graminoid	
BOLT AST	Boltonia asteroides	white boltonia	forb	
BOLT AST REC	Boltonia asteroides var. recognita	white boltonia	forb	
BORA OFF	Borago officinalis	borage	forb	
BOTR ASC	Botrychium ascendens	upswept moonwort	forb	
BOTR CAM	Botrychium campestre	plains moonwort	forb	
BOTR HES	Botrychium hesperium	western chamomile-leaved grape-fern	forb	
BOTR LAN	Botrychium lanceolatum	lance-leaved moonwort	forb	
BOTR LAN ANG	Botrychium lanceolatum ssp. angustisegmentum	lance-leaved moonwort	forb	
BOTR LAN LAN	Botrychium lanceolatum ssp. lanceolatum	lance-leaved moonwort	forb	
BOTR LUN	Botrychium lunaria	common moonwort	forb	
BOTR MIN	Botrychium minganense	mingan moonwort	forb	
BOTR MUL	Botrychium multifidum	leathery grape-fern	forb	
BOTR PAL	Botrychium pallidum	pale moonwort	forb	
BOTR PAR	Botrychium paradoxum	paradoxical moonwort	forb	
BOTR PED	Botrychium pedunculosum	stalked moonwort	forb	
BOTR SIM	Botrychium simplex	least moonwort	forb	
BOTR SPP	Botrychium spp.	grape-fern (genus)	forb	
BOTR VIR	Botrychium virginianum	Virginia grape-fern	forb	
BOTR VIR VIR	Botrychium virginianum var. virginianum	Virginia grape-fern	forb	
BOUT CUR	Bouteloua curtipendula	side-oats grama	graminoid	
BOUT CUR CUR	Bouteloua curtipendula var. curtipendula	side-oats grama	graminoid	
BOUT GRA	Bouteloua gracilis	blue grama	graminoid	
BOUT SPP	Bouteloua spp.	grama (genus)	graminoid	
BRAC ACU	Brachythecium acuminatum		bryophyte	
BRAC ALB	Brachythecium albicans		bryophyte	
BRAC COL	Brachythecium collinum		bryophyte	
BRAC OXY	Brachythecium oxycladon		bryophyte	
BRAC PLU	Brachythecium plumosum		bryophyte	
BRAC REF	Brachythecium reflexum		bryophyte	
BRAC RIV	Brachythecium rivulare	waterside feather moss	bryophyte	
BRAC RUT	Brachythecium rutabulum		bryophyte	

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BRAC SAL	Brachythecium salebrosum	golden ragged feather moss	bryophyte	
BRAC SPP	Brachythecium spp.		bryophyte	
BRAC VEL	Brachythecium velutinum	velvet feather moss	bryophyte	
BRAS JUN	Brassica juncea	Indian mustard	forb	
BRAS NAP	Brassica napus	rapeseed	forb	
BRAS NIG	Brassica nigra	black mustard	forb	
BRAS RAP	Brassica rapa	wild mustard	forb	
BRAS RAP RAP	Brassica rapa var. rapa	wild mustard	forb	
BRAS SPP	Brassica spp.	mustard (Brassica genus)	forb	
BRBU CON	Barbula convoluta		bryophyte	
BRBU SPP	Barbula spp.		bryophyte	
BRBU UNG	Barbula unguiculata		bryophyte	
BROM BIE	Bromus biebersteinii	meadow brome	graminoid	
BROM CIL	Bromus ciliatus	fringed brome	graminoid	
BROM CIL CIL	Bromus ciliatus var. ciliatus	fringed brome	graminoid	
BROM INE	Bromus inermis	smooth brome	graminoid	
BROM JAP	Bromus japonicus	Japanese chess	graminoid	
BROM LAT	Bromus latiglumis	broad-glumed brome	graminoid	
BROM MAR	Bromus marginatus	California brome	graminoid	
BROM POR	Bromus porteri	nodding brome	graminoid	
BROM PUB	Bromus pubescens	hairy woodland brome	graminoid	
BROM PUM	Bromus pumpellianus	northern awnless brome	graminoid	
BROM RAC	Bromus racemosus	bald brome	graminoid	
BROM SPP	Bromus spp.	brome (genus)	graminoid	
BROM TEC	Bromus tectorum	downy brome	graminoid	
BROM TEC TEC	Bromus tectorum var. tectorum	downy brome	graminoid	
BRYH VIR	Bryohaplocladium virginianum		bryophyte	
BRYO CAP	Bryoria capillaris	gray horsehair lichen	lichen	
BRYO CHA	Bryoria chalybeiformis	horsehair lichen	lichen	
BRYO FRE	Bryoria fremontii	tree-hair lichen	lichen	
BRYO FUR	Bryoria furcellata	burred horsehair lichen	lichen	
BRYO FUS	Bryoria fuscescens	pale-footed horsehair lichen	lichen	
BRYO GLA	Bryoria glabra	shiney horsehair lichen	lichen	
BRYO IMP	Bryoria implexa	horsehair lichen	lichen	
BRYO LAN	Bryoria lanestris	brittle horsehair lichen	lichen	
BRYO NAD	Bryoria nadvornikiana	spiney gray horsehair lichen	lichen	
BRYO NIT	Bryoria nitidula	tundra horsehair lichen	lichen	
BRYO SIM	Bryoria simplicior	horsehair lichen	lichen	
BRYO SPP	Bryoria spp.		lichen	
BRYO TRI	Bryoria trichodes	horsehair lichen	lichen	
BRYU ALG	Bryum algovicum		bryophyte	
BRYU ARC	Bryum arcticum		bryophyte	
BRYU ARG	Bryum argenteum		bryophyte	
BRYU BIC	Bryum bicolor		bryophyte	
BRYU CAE	Bryum caespiticium		bryophyte	
BRYU CAP	Bryum capillare		bryophyte	
BRYU KNO	Bryum knowltonii		bryophyte	
BRYU LIS	Bryum lisae		bryophyte	
BRYU LIS CUS	Bryum lisae var. cuspidatum		bryophyte	

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BRYU LON	Bryum lonchocaulon		bryophyte	
BRYU PAL	Bryum pallescens		bryophyte	
BRYU PSE	Bryum pseudotriquetrum	tall clustered thread moss	bryophyte	
BRYU PSE BIM	Bryum pseudotriquetrum var. bimum		bryophyte	
BRYU SPP	Bryum spp.		bryophyte	
BRYU STE	Bryum stenotrichum		bryophyte	
BRYU TUR	Bryum turbinatum		bryophyte	
BRYU ULI	Bryum uliginosum		bryophyte	
BUCH DAC	Buchloe dactyloides	buffalo-grass	graminoid	
BUEL ALB	Buellia alboatra	button lichen	lichen	
BUEL DIS	Buellia disciformis	boreal button lichen	lichen	
BUEL ELE	Buellia elegans	button lichen	lichen	
BUEL LEP	Buellia lepidastra	button lichen	lichen	
BUEL PAP	Buellia papillata	button lichen	lichen	
BUEL RET	Buellia retrovertens	button lichen	lichen	
BUEL SPP	Buellia spp.		lichen	
BUEL SPU	Buellia spuria	sunken lichen button	lichen	
BUEL TRI	Buellia triphragmioides	button lichen	lichen	
BUEL TUR	Buellia turgescens	button lichen	lichen	
BUTO UMB	Butomus umbellatus	flowering-rush	graminoid	
CALA CAN	Calamagrostis canadensis	marsh reed-grass	graminoid	
CALA CAN CAN	Calamagrostis canadensis var. canadensis	marsh reed-grass	graminoid	
CALA CAN LAN	Calamagrostis canadensis var. langsdorfii	marsh reed-grass	graminoid	
CALA CAN MAC	Calamagrostis canadensis var. macouniana	marsh reed-grass	graminoid	
CALA LAP	Calamagrostis lapponica	Lapland reed-grass	graminoid	
CALA MON	Calamagrostis montanensis	plains reed-grass	graminoid	
CALA PUR	Calamagrostis purpurascens	purple reed-grass	graminoid	
CALA PUR PUR	Calamagrostis purpurascens var. purpurascens	purple reed-grass	graminoid	
CALA RUB	Calamagrostis rubescens	pine-grass	graminoid	
CALA SPP	Calamagrostis spp.	reed-grass (genus)	graminoid	
CALA STR	Calamagrostis stricta	northern reed-grass	graminoid	
CALA STR INE	Calamagrostis stricta ssp. inexpansa	northern reed-grass	graminoid	
CALA STR STR	Calamagrostis stricta ssp. stricta	narrow reed-grass	graminoid	
CALG MAC	Calystegia macounii	inland false-bindweed	forb	
CALG SEP	Calystegia sepium	hedge false-bindweed	forb	
CALG SEP AME	Calystegia sepium ssp. americana	hedge false-bindweed	forb	
CALG SEP ANG	Calystegia sepium ssp. angulata	hedge false-bindweed	forb	
CALG SEP SEP	Calystegia sepium ssp. sepium	hedge false-bindweed	forb	
CALG SIL	Calystegia silvatica	shortstalk false-bindweed	forb	
CALG SIL FRA	Calystegia silvatica ssp. fraterniflora	shortstalk false-bindweed	forb	
CALG SPP	Calystegia spp.	false-bindweed (genus)	forb	
CALI ABI	Calicium abietinum	stubble lichen	lichen	
CALI SPP	Calicium spp.		lichen	
CALI TRA	Calicium trabinellum	yellow collar stubble lichen	lichen	
CALI VIR	Calicium viride	green stubble lichen	lichen	
CALL PAL	Calla palustris	marsh calla	forb	
CALM LON	Calamovilfa longifolia	sand-grass	graminoid	
CALO ATR	Caloplaca atroalba	firedot lichen	lichen	
CALO CER	Caloplaca cerina	gray-rimmed firedot lichen	lichen	

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CALO CIR	Caloplaca cirrochroa	firedot lichen	lichen	
CALO EPI	Caloplaca epithallina	parasitic firedot lichen	lichen	
CALO FRA	Caloplaca fraudans	firedot lichen	lichen	
CALO FVR	Caloplaca flavorubescens	bark sulphur-firedot lichen	lichen	
CALO FVV	Caloplaca flavovirescens	sulphur-firedot lichen	lichen	
CALO HOL	Caloplaca holocarpa	firedot lichen	lichen	
CALO JUN	Caloplaca jungermanniae	firedot lichen	lichen	
CALO POL	Caloplaca pollinii	firedot lichen	lichen	
CALO SAX	Caloplaca saxicola	firedot lichen	lichen	
CALO SID	Caloplaca sideritis	firedot lichen	lichen	
CALO SIN	Caloplaca sinapisperma	firedot lichen	lichen	
CALO SPP	Caloplaca spp.		lichen	
CALO STI	Caloplaca stillicidiorum	gray-rimmed firedot lichen	lichen	
CALO TIR	Caloplaca tiroliensis	firedot lichen	lichen	
CALO TOM	Caloplaca tominii	firedot lichen	lichen	
CALO TRA	Caloplaca trachyphylla	firedot lichen	lichen	
CALO ULM	Caloplaca ulmorum	firedot lichen	lichen	
CALP SER	Calylophus serrulatus	shrubby evening-primrose	forb	
CALT NAT	Caltha natans	floating marsh-marigold	forb	
CALT PAL	Caltha palustris	yellow marsh-marigold	forb	
CALT PAL PAL	Caltha palustris var. palustris	yellow marsh-marigold	forb	
CALT SPP	Caltha spp.	marsh-marigold (genus)	forb	
CALY BUL	Calypso bulbosa	venus'-slipper	forb	
CALY BUL AME	Calypso bulbosa var. americana	venus'-slipper	forb	
CAME MIC	Camelina microcarpa	small-seeded false-flax	forb	
CAME SAT	Camelina sativa	false-flax	forb	
CAME SAT ALY	Camelina sativa ssp. alyssum	false-flax	forb	
CAME SAT SAT	Camelina sativa ssp. sativa	large-seeded false-flax	forb	
CAME SPP	Camelina spp.	false-flax (genus)	forb	
CAMI AND	Camissonia andina	Andean sundrops	forb	
CAMI BRE	Camissonia breviflora	taraxia	forb	
CAMI SPP	Camissonia spp.	sundrops (genus)	forb	
CAMP APA	Campanula aparinoides	marsh bellflower	forb	
CAMP RAP	Campanula rapunculoides	creeping bellflower	forb	
CAMP ROT	Campanula rotundifolia	harebell	forb	
CAMP SPP	Campanula spp.	bellflower (genus)	forb	
CANA MOD	Canadanthus modestus	modest aster	forb	
CAND CON	Candelaria concolor	candleflame lichen	lichen	
CANN SAT	Cannabis sativa	hemp	forb	
CANN SAT SAT	Cannabis sativa ssp. sativa	hemp	forb	
CAPS BUR	Capsella bursa-pastoris	shepherd's-purse	forb	
CARA ARB	Caragana arborescens	caragana	erect shrub	
CARD PAR	Cardamine parviflora	small-flowered bitter-cress	forb	
CARD PAR ARE	Cardamine parviflora var. arenicola	small-flowered bitter-cress	forb	
CARD PEN	Cardamine pensylvanica	Pennsylvania bitter-cress	forb	
CARD PRA	Cardamine pratensis	cuckoo-flower	forb	
CARD PRA ANG	Cardamine pratensis var. angustifolia	cuckoo-flower	forb	
CARD PRA PRA	Cardamine pratensis var. pratensis	cuckoo-flower	forb	
CARD SPP	Cardamine spp.	bitter-cress (genus)	forb	

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CARE ADU	Carex adusta	browned sedge	graminoid	
CARE ALO	Carex alopecoidea	foxtail sedge	graminoid	
CARE AQU	Carex aquatilis	water sedge	graminoid	
CARE AQU AQU	Carex aquatilis var. aquatilis	water sedge	graminoid	
CARE ARC	Carex arcta	northern sedge	graminoid	
CARE ASS	Carex assiniboinensis	Assiniboia sedge	graminoid	
CARE ATH	Carex atherodes	awned sedge	graminoid	
CARE ATR	Carex atratiformis	Raymond's sedge	graminoid	
CARE ATS	Carex athrostachya	long-bracted sedge	graminoid	
CARE AUR	Carex aurea	golden sedge	graminoid	
CARE BAC	Carex backii	back’s sedge	graminoid	
CARE BEB	Carex bebbii	Bebb's sedge	graminoid	
CARE BIC	Carex bicolor	two-color sedge	graminoid	
CARE BIG	Carex bigelowii	Bigelow’s sedge	graminoid	
CARE BLA	Carex blanda	woodland sedge	graminoid	
CARE BRE	Carex brevior	broad-fruited sedge	graminoid	
CARE BRU	Carex brunnescens	brownish sedge	graminoid	
CARE BUX	Carex buxbaumii	brown sedge	graminoid	
CARE CAN	Carex canescens	hoary sedge	graminoid	
CARE CAN CAN	Carex canescens ssp. canescens	hoary sedge	graminoid	
CARE CAP	Carex capillaris	hair-like sedge	graminoid	
CARE CHO	Carex chordorriza	creeping sedge	graminoid	
CARE CON	Carex concinna	beautiful sedge	graminoid	
CARE CPT	Carex capitata	capitate sedge	graminoid	
CARE CPT CAP	Carex capitata ssp. capitata	capitate sedge	graminoid	
CARE CRA	Carex crawei	Crawe's sedge	graminoid	
CARE CRI	Carex cristatella	crested sedge	graminoid	
CARE CRW	Carex crawfordii	Crawford's sedge	graminoid	
CARE CRY	Carex cryptolepis	northeastern sedge	graminoid	
CARE DEF	Carex deflexa	bent northern sedge	graminoid	
CARE DEW	Carex deweyana	Dewey’s sedge	graminoid	
CARE DIA	Carex diandra	two-stamen sedge	graminoid	
CARE DIS	Carex disperma	soft-leaved sedge	graminoid	
CARE DOU	Carex douglasii	Douglas' sedge	graminoid	
CARE DUR	Carex duriuscula	low sedge	graminoid	
CARE EBU	Carex eburnea	bristle-leaf sedge	graminoid	
CARE ECH	Carex echinata	star sedge	graminoid	
CARE ECH ECH	Carex echinata ssp. echinata	star sedge	graminoid	
CARE FIL	Carex filifolia	thread-leaf sedge	graminoid	
CARE FLA	Carex flava	yellow sedge	graminoid	
CARE FOE	Carex foenea	hay sedge	graminoid	
CARE GAR	Carex garberi	elk sedge	graminoid	
CARE GLA	Carex glacialis	glacier sedge	graminoid	
CARE GRA	Carex granularis	granular sedge	graminoid	
CARE GRV	Carex gravida	heavy sedge	graminoid	
CARE GRV GRA	Carex gravida var. gravida	heavy sedge	graminoid	
CARE GYN	Carex gynocrates	northern bog sedge	graminoid	
CARE HEL	Carex heleonastes	Hudson Bay sedge	graminoid	
CARE HEL HEL	Carex heleonastes ssp. heleonastes	Hudson Bay sedge	graminoid	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
CARE HEL NEU	Carex heleonastes ssp. neurochlaena	Hudson Bay sedge	graminoid	
CARE HOK	Carex hookeriana	Hooker's sedge	graminoid	
CARE HOO	Carex hoodii	Hood's sedge	graminoid	
CARE HOU	Carex houghtoniana	Houghton's sedge	graminoid	
CARE HYS	Carex hystericina	porcupine sedge	graminoid	
CARE INC	Carex incurviformis	coastal-sand sedge	graminoid	
CARE INC INC	Carex incurviformis var. incurviformis	coastal-sand sedge	graminoid	
CARE INO	Carex inops	sun-loving sedge	graminoid	
CARE INO HEL	Carex inops ssp. heliophila	sun-loving sedge	graminoid	
CARE INT	Carex interior	inland sedge	graminoid	
CARE LAC	Carex lacustris	lakeshore sedge	graminoid	
CARE LAE	Carex laeviconica	smooth-cone sedge	graminoid	
CARE LAS	Carex lasiocarpa	hairy-fruited sedge	graminoid	
CARE LAS AME	Carex lasiocarpa ssp. americana	hairy-fruited sedge	graminoid	
CARE LEN	Carex lenticularis	lens-fruited sedge	graminoid	
CARE LEN LEN	Carex lenticularis var. lenticularis	lens-fruited sedge	graminoid	
CARE LEP	Carex leptalea	bristle-stalked sedge	graminoid	
CARE LEP LEP	Carex leptalea ssp. leptalea	bristle-stalked sedge	graminoid	
CARE LIM	Carex limosa	mud sedge	graminoid	
CARE LIV	Carex livida	livid sedge	graminoid	
CARE LOL	Carex loliacea	rye-grass sedge	graminoid	
CARE MAC	Carex mackenziei	Mackenzie's sedge	graminoid	
CARE MAG	Carex magellanica	quaking bog sedge	graminoid	
CARE MAG IRR	Carex magellanica ssp. irrigua	quaking bog sedge	graminoid	
CARE MAR	Carex maritima	seaside sedge	graminoid	
CARE MCP	Carex microptera	small-winged sedge	graminoid	
CARE MEA	Carex meadii	Mead's sedge	graminoid	
CARE MED	Carex media	Norway sedge	graminoid	
CARE MIC	Carex michauxiana	Michaux's sedge	graminoid	
CARE OBT	Carex obtusata	blunt sedge	graminoid	
CARE OLI	Carex oligosperma	few-seeded sedge	graminoid	
CARE OLI OLI	Carex oligosperma var. oligosperma	few-seeded sedge	graminoid	
CARE PAC	Carex pachystachya	thick-headed sedge	graminoid	
CARE PAL	Carex paleacea	chaffy sedge	graminoid	
CARE PAR	Carex parryana	Parry's sedge	graminoid	
CARE PAR PAR	Carex parryana var. parryana	Parry's sedge	graminoid	
CARE PAU	Carex pauciflora	few-flowered sedge	graminoid	
CARE PEC	Carex peckii	Peck's sedge	graminoid	
CARE PED	Carex pedunculata	long-stalked sedge	graminoid	
CARE PEL	Carex pellita	woolly sedge	graminoid	
CARE PET	Carex petasata	tufted sedge	graminoid	
CARE PRA	Carex praegracilis	graceful sedge	graminoid	
CARE PRI	Carex prairea	prairie sedge	graminoid	
CARE PRO	Carex projecta	projecting sedge	graminoid	
CARE PRT	Carex praticola	northern meadow sedge	graminoid	
CARE PSE	Carex pseudocyperus	cypress-like sedge	graminoid	
CARE RAY	Carex raynoldsii	Raynolds' sedge	graminoid	
CARE RET	Carex retrorsa	retrorse sedge	graminoid	
CARE RIC	Carex richardsonii	Richardson’s sedge	graminoid	

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CARE ROS	Carex rossii	Ross' sedge	graminoid	
CARE RST	Carex rostrata	beaked sedge	graminoid	
CARE SAR	Carex sartwellii	Sartwell's sedge	graminoid	
CARE SAR SAR	Carex sartwellii var. sartwellii	Sartwell's sedge	graminoid	
CARE SAX	Carex saxatilis	rocky-ground sedge	graminoid	
CARE SCI	Carex scirpoidea	bulrush-like sedge	graminoid	
CARE SCI SCI	Carex scirpoidea var. scirpoidea	bulrush-like sedge	graminoid	
CARE SCO	Carex scoparia	pointed broom sedge	graminoid	
CARE SCO SCO	Carex scoparia var. scoparia	pointed broom sedge	graminoid	
CARE SIC	Carex siccata	dry-spike sedge	graminoid	
CARE SIM	Carex simulata	mimic sedge	graminoid	
CARE SPP	Carex spp.	sedge (genus)	graminoid	
CARE SPR	Carex sprengelii	Sprengel’s sedge	graminoid	
CARE STE	Carex sterilis	sterile sedge	graminoid	
CARE STI	Carex stipata	awl-fruited sedge	graminoid	
CARE STI STI	Carex stipata var. stipata	awl-fruited sedge	graminoid	
CARE SUB	Carex subspathacea	Hoppner’s sedge	graminoid	
CARE SUP	Carex supina	weak arctic sedge	graminoid	
CARE SUP SPA	Carex supina var. spaniocarpa	weak arctic sedge	graminoid	
CARE SXM	Carex saximontana	Rocky Mountain sedge	graminoid	
CARE SYC	Carex sychnocephala	many-headed sedge	graminoid	
CARE TEN	Carex tenera	quill sedge	graminoid	
CARE TEN TEN	Carex tenera var. tenera	quill sedge	graminoid	
CARE TET	Carex tetanica	rigid sedge	graminoid	
CARE TNU	Carex tenuiflora	sparse-flowered sedge	graminoid	
CARE TON	Carex tonsa	bald sedge	graminoid	
CARE TON TON	Carex tonsa var. tonsa	bald sedge	graminoid	
CARE TOR	Carex torreyi	Torrey's sedge	graminoid	
CARE TRI	Carex trisperma	three-seeded sedge	graminoid	
CARE TRI TRI	Carex trisperma var. trisperma	three-seeded sedge	graminoid	
CARE UMB	Carex umbellata	umbellate sedge	graminoid	
CARE UTR	Carex utriculata	northern beaked sedge	graminoid	
CARE VAG	Carex vaginata	sheathed sedge	graminoid	
CARE VES	Carex vesicaria	blister sedge	graminoid	
CARE VIR	Carex viridula	green sedge	graminoid	
CARE VIR VIR	Carex viridula var. viridula	green sedge	graminoid	
CARE VUL	Carex vulpinoidea	fox sedge	graminoid	
CARE VUL VUL	Carex vulpinoidea var. vulpinoidea	fox sedge	graminoid	
CARE XER	Carex xerantica	white-scaled sedge	graminoid	
CART TIN	Carthamus tinctorius	safflower	forb	
CARU CAR	Carum carvi	caraway	forb	
CAST COC	Castilleja coccinea	scarlet paintbrush	forb	
CAST MIN	Castilleja miniata	red Indian-paintbrush	forb	
CAST MIN MIN	Castilleja miniata ssp. miniata	red Indian-paintbrush	forb	
CAST RAU	Castilleja raupii	Raup’s Indian-paintbrush	forb	
CAST SES	Castilleja sessiliflora	downy paintbrush	forb	
CAST SPP	Castilleja spp.	paintbrush (genus)	forb	
CATA AQU	Catabrosa aquatica	brook grass	graminoid	
CATA AQU AQU	Catabrosa aquatica var. aquatica	brook grass	graminoid	

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CATI CHA	Catillaria chalybeia		lichen	
CATI GLA	Catillaria glauconigrans		lichen	
CATI SPP	Catillaria spp.		lichen	
CATO NIG	Catoscopium nigritum	golf club moss	bryophyte	
CDLL AUR	Candelariella aurella	hidden goldspeck lichen	lichen	
CDLL DIS	Candelariella dispersa		lichen	
CDLL SPP	Candelariella spp.		lichen	
CDLL TER	Candelariella terrigena	tundra goldspeck lichen	lichen	
CDLL VIT	Candelariella vitellina	common goldspeck lichen	lichen	
CELA SCA	Celastrus scandens	climbing bittersweet	forb	
CENT CYA	Centaurea cyanus	bachelor's-buttons	forb	
CENT DIF	Centaurea diffusa	diffuse knapweed	forb	
CENT SOL	Centaurea solstitialis	yellow star-thistle	forb	
CENT SPP	Centaurea spp.	knapweed (genus)	forb	
CERA ALP	Cerastium alpinum	alpine chickweed	forb	
CERA ALP LAN	Cerastium alpinum var. lanatum	woolly alpine chickweed	forb	
CERA ALP STR	Cerastium alpinum var. strigosum	alpine chickweed	forb	
CERA ARV	Cerastium arvense	field chickweed	forb	
CERA ARV STR	Cerastium arvense ssp. strictum	field chickweed	forb	
CERA BEE	Cerastium beeringianum	Bering chickweed	forb	
CERA BRA	Cerastium brachypodum	short-stalked mouse-ear chickweed	forb	
CERA FON	Cerastium fontanum	common mouse-ear chickweed	forb	
CERA FON VUL	Cerastium fontanum ssp. vulgare	common mouse-ear chickweed	forb	
CERA NUT	Cerastium nutans	nodding chickweed	forb	
CERA NUT NUT	Cerastium nutans var. nutans	nodding chickweed	forb	
CERA SPP	Cerastium spp.	chickweed (genus)	forb	
CERO DEM	Ceratophyllum demersum	coontail	forb	
CETR ACU	Cetraria aculeata	spiney heath lichen	lichen	
CETR ARE	Cetraria arenaria	sand-loving Iceland lichen	lichen	
CETR CHL	Cetraria chlorophylla	powdered wrinkle-lichen	lichen	
CETR CIL	Cetraria ciliaris		lichen	
CETR COM	Cetraria commixta		lichen	
CETR CUC	Cetraria cucullata	curled snow lichen	lichen	
CETR ERI	Cetraria ericetorum	iceland lichen	lichen	
CETR FEN	Cetraria fendleri	dwarf wrinkle-lichen	lichen	
CETR HEP	Cetraria hepatizon	rimmed camouflage lichen	lichen	
CETR ISL	Cetraria islandica	true Iceland lichen	lichen	
CETR LAE	Cetraria laevigata	striped Iceland lichen	lichen	
CETR MER	Cetraria merrillii	flattened thornbush lichen	lichen	
CETR NIG	Cetraria nigricans		lichen	
CETR NIV	Cetraria nivalis	crinkled snow lichen	lichen	
CETR ORB	Cetraria orbata	variable wrinkle-lichen	lichen	
CETR SEP	Cetraria sepincola	chestnut wrinkle-lichen	lichen	
CETR SPP	Cetraria spp.		lichen	
CHAE MIN	Chaenorrhinum minus	small snapdragon	forb	
CHAM CAL	Chamaedaphne calyculata	leather-leaf	erect shrub	
CHEL MAJ	Chelidonium majus	greater celandine	forb	
CHEL MAJ MAJ	Chelidonium majus var. majus	greater celandine	forb	
CHEN ALB	Chenopodium album	lamb's-quarters	forb	

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CHEN ALB ALB	Chenopodium album var. album	lamb's-quarters	forb	
CHEN ATR	Chenopodium atrovirens	dark-green goosefoot	forb	
CHEN BER	Chenopodium berlandieri	pit-seed goosefoot	forb	
CHEN BER ZSC	Chenopodium berlandieri var. zschackii	pit-seed goosefoot	forb	
CHEN CAP	Chenopodium capitatum	strawberry-blite	forb	
CHEN DES	Chenopodium desiccatum	arid-land goosefoot	forb	
CHEN FRE	Chenopodium fremontii	Fremont's goosefoot	forb	
CHEN FRE FRE	Chenopodium fremontii var. fremontii	Fremont's goosefoot	forb	
CHEN GLA	Chenopodium glaucum	oak-leaf goosefoot	forb	
CHEN GLA SAL	Chenopodium glaucum var. salinum	oak-leaf goosefoot	forb	
CHEN HIA	Chenopodium hians	Hians goosefoot	forb	
CHEN INC	Chenopodium incanum	mealy goosefoot	forb	
CHEN LEP	Chenopodium leptophyllum	narrow-leaved goosefoot	forb	
CHEN MUR	Chenopodium murale	nettle-leaved goosefoot	forb	
CHEN POL	Chenopodium polyspermum	many-seeded goosefoot	forb	
CHEN POL ACU	Chenopodium polyspermum var. acutifolium	many-seeded goosefoot	forb	
CHEN PRA	Chenopodium pratericola	desert goosefoot	forb	
CHEN RUB	Chenopodium rubrum	red goosefoot	forb	
CHEN SIM	Chenopodium simplex	maple-leaved goosefoot	forb	
CHEN SPP	Chenopodium spp.	goosefoot (genus)	forb	
CHEN STR	Chenopodium strictum	upright lamb's-quarters	forb	
CHEN SUB	Chenopodium subglabrum	smooth goosefoot	forb	
CHEN WAT	Chenopodium watsonii	Watson's goosefoot	forb	
CHIM UMB	Chimaphila umbellata	prince's-pine	forb	
CHIM UMB CIS	Chimaphila umbellata ssp. cisatlantica	eastern prince's-pine	forb	
CHIM UMB OCC	Chimaphila umbellata ssp. occidentalis	western prince's-pine	forb	
CHMN ANG	Chamerion angustifolium	common fireweed	forb	
CHMN ANG ANG	Chamerion angustifolium ssp. angustifolium	common fireweed	forb	
CHMN ANG CIR	Chamerion angustifolium ssp. circumvagum	common fireweed	forb	
CHMR ERE	Chamaerhodos erecta	little ground-rose	forb	
CHMR ERE NUT	Chamaerhodos erecta ssp. nuttallii	little ground-rose	forb	
CHMS GEY	Chamaesyce geyeri	Geyer's spurge	forb	
CHMS GEY GEY	Chamaesyce geyeri var. geyeri	Geyer's spurge	forb	
CHMS GLY	Chamaesyce glyptosperma	ridge-seeded spurge	forb	
CHMS SER	Chamaesyce serpens	round-leaved spurge	forb	
CHMS SPP	Chamaesyce spp.	spurge (Chamaesyce genus)	forb	
CHMS SRP	Chamaesyce serpyllifolia	thyme-leaved spurge	forb	
CHMS SRP SER	Chamaesyce serpyllifolia ssp. serpyllifolia	thyme-leaved spurge	forb	
CHNT BRU	Chaenotheca brunneola	brown-headed stubble lichen	lichen	
CHNT CHR	Chaenotheca chrysocephala		lichen	
CHNT SPP	Chaenotheca spp.		lichen	
CHOR TEN	Chorispora tenella	cross-flower	forb	
CHRO MUS	Chromatochlamys muscorum		lichen	
CHRY IOW	Chrysosplenium iowense	Iowa golden-saxifrage	forb	
CHRY SPP	Chrysosplenium spp.	golden-saxifrage (genus)	forb	
CHRY TET	Chrysosplenium tetrandrum	northern golden-saxifrage	forb	
CHTP PUS	Chaenothecopsis pusilla		lichen	
CICE ARI	Cicer arietinum	chick-pea	forb	
CICH END	Cichorium endivia	endive	forb	

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CICH INT	Cichorium intybus	chicory	forb	
CICH SPP	Cichorium spp.	chicory (genus)	forb	
CICU BUL	Cicuta bulbifera	bulbous water-hemlock	forb	
CICU MAC	Cicuta maculata	water-hemlock	forb	
CICU MAC ANG	Cicuta maculata var. angustifolia	narrow-leaved water-hemlock	forb	
CICU MAC MAC	Cicuta maculata var. maculata	spotted water-hemlock	forb	
CICU SPP	Cicuta spp.	water-hemlock (genus)	forb	
CICU VIR	Cicuta virosa	Mackenzie's water-hemlock	forb	
CINC STY	Cinclidium stygium	common northern lantern moss	bryophyte	
CINN LAT	Cinna latifolia	drooping wood-grass	graminoid	
CIRC ALP	Circaea alpina	small enchanter's-nightshade	forb	
CIRC ALP ALP	Circaea alpina ssp. alpina	small enchanter's-nightshade	forb	
CIRS ARV	Cirsium arvense	Canada thistle	forb	
CIRS CAN	Cirsium canescens	platte thistle	forb	
CIRS DRU	Cirsium drummondii	Drummond's thistle	forb	
CIRS FLO	Cirsium flodmanii	Flodman's thistle	forb	
CIRS FOL	Cirsium foliosum	leafy thistle	forb	
CIRS MUT	Cirsium muticum	swamp thistle	forb	
CIRS SPP	Cirsium spp.	thistle (genus)	forb	
CIRS UND	Cirsium undulatum	wavy-leaved thistle	forb	
CIRS UND UND	Cirsium undulatum var. undulatum	wavy-leaved thistle	forb	
CIRS VUL	Cirsium vulgare	bull thistle	forb	
CLAD MAR	Cladium mariscoides	twig-rush	graminoid	
CLAY LAN	Claytonia lanceolata	lance-leaved springbeauty	forb	
CLAY LAN LAN	Claytonia lanceolata var. lanceolata	lance-leaved springbeauty	forb	
CLDI ARB	Cladina arbuscula	reindeer lichen	lichen	
CLDI MIT	Cladina mitis	green reindeer lichen	lichen	
CLDI RAN	Cladina rangiferina	gray reindeer lichen	lichen	
CLDI SPP	Cladina spp.		lichen	
CLDI STE	Cladina stellaris	star-tipped reindeer lichen	lichen	
CLDI STY	Cladina stygia	black-footed reindeer lichen	lichen	
CLDO AMA	Cladonia amaurocraea	quill lichen	lichen	
CLDO BAC	Cladonia bacilliformis		lichen	
CLDO BEL	Cladonia bellidiflora	toy soldiers	lichen	
CLDO BOR	Cladonia borealis	boreal pixie-cup	lichen	
CLDO BOT	Cladonia botrytes	wooden soldiers	lichen	
CLDO CAR	Cladonia cariosa	split-peg soldiers	lichen	
CLDO CEN	Cladonia cenotea	powdered funnel lichen	lichen	
CLDO CER	Cladonia cervicornis	ladder lichen	lichen	
CLDO CHL	Cladonia chlorophaea	mealy pixie-cup	lichen	
CLDO COC	Cladonia coccifera		lichen	
CLDO CON	Cladonia coniocraea	common powderhorn	lichen	
CLDO COR	Cladonia cornuta		lichen	
CLDO COR COR	Cladonia cornuta ssp. cornuta	bighorn cladonia	lichen	
CLDO CRN	Cladonia carneola	crowned pixie-cup	lichen	
CLDO CRY	Cladonia cryptochlorophaea		lichen	
CLDO CSP	Cladonia crispata	organ-pipe lichen	lichen	
CLDO CST	Cladonia cristatella	British soldiers	lichen	
CLDO CYA	Cladonia cyanipes		lichen	

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CLDO CYL	Cladonia cylindrica		lichen	
CLDO DEC	Cladonia decorticata		lichen	
CLDO DEF	Cladonia deformis	lesser sulphur-cup	lichen	
CLDO ECM	Cladonia ecmocyna	frosted cladonia	lichen	
CLDO FIM	Cladonia fimbriata	trumpet lichen	lichen	
CLDO FUR	Cladonia furcata	many-forked cladonia	lichen	
CLDO GLA	Cladonia glauca		lichen	
CLDO GRA	Cladonia gracilis	smooth cladonia	lichen	
CLDO GRY	Cladonia grayi		lichen	
CLDO HUM	Cladonia humilis		lichen	
CLDO MAT	Cladonia mateocyatha	mixed-up pixie-cup	lichen	
CLDO MAX	Cladonia maxima	giant cladonia	lichen	
CLDO MCC	Cladonia macroceras		lichen	
CLDO MCL	Cladonia macilenta	lipstick powderhorn	lichen	
CLDO MET	Cladonia metacorallifera		lichen	
CLDO MIT	Cladonia mitrula		lichen	
CLDO MPA	Cladonia macrophylla		lichen	
CLDO MPS	Cladonia macrophyllodes	large-leaved cladonia	lichen	
CLDO MUL	Cladonia multiformis	sieve lichen	lichen	
CLDO OCH	Cladonia ochrochlora	smooth-footed powderhorn	lichen	
CLDO PDS	Cladonia polycarpoides	peg lichen	lichen	
CLDO PHY	Cladonia phyllophora	felt cladonia	lichen	
CLDO PLE	Cladonia pleurota	red-fruited pixie-cup	lichen	
CLDO POC	Cladonia pocillum	rosette pixie-cup	lichen	
CLDO PPA	Cladonia polycarpia		lichen	
CLDO PYX	Cladonia pyxidata	pebbled pixie-cup	lichen	
CLDO RAM	Cladonia ramulosa		lichen	
CLDO RAP	Cladonia rappii	slender ladder lichen	lichen	
CLDO REI	Cladonia rei	wand lichen	lichen	
CLDO ROB	Cladonia robbinsii	yellow tongue cladonia	lichen	
CLDO SCA	Cladonia scabriuscula	mealy forked cladonia	lichen	
CLDO SPP	Cladonia spp.		lichen	
CLDO SQU	Cladonia squamosa	dragon cladonia	lichen	
CLDO SUB	Cladonia subulata	antlered powderhorn	lichen	
CLDO SUL	Cladonia sulphurina	greater sulphur -cup	lichen	
CLDO SYM	Cladonia symphycarpa		lichen	
CLDO TRA	Cladonia trassii	spotted black-foot	lichen	
CLDO TUR	Cladonia turgida	crazy scale lichen	lichen	
CLDO UNC	Cladonia uncialis	thorn cladonia	lichen	
CLEM LIG	Clematis ligusticifolia	western white clematis	forb	
CLEM LIG LIG	Clematis ligusticifolia var. ligusticifolia	western white clematis	forb	
CLEM OCC	Clematis occidentalis	purple clematis	forb	
CLEM OCC GRO	Clematis occidentalis var. grosseserrata	purple clematis	forb	
CLEM SPP	Clematis spp.	clematis (genus)	forb	
CLEM TAN	Clematis tangutica	oriental clematis	forb	
CLGL CUS	Calliergonella cuspidata		bryophyte	
CLGN COR	Calliergon cordifolium	heart-leaved feather moss	bryophyte	
CLGN GIG	Calliergon giganteum	giant water feather moss	bryophyte	
CLGN OBT	Calliergon obtusifolium		bryophyte	

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CLGN RIC	Calliergon richardsonii	Richardson's water moss	bryophyte	
CLGN SPP	Calliergon spp.		bryophyte	
CLGN STR	Calliergon stramineum	straw-coloured water moss	bryophyte	
CLIM DEN	Climacium dendroides	common tree moss	bryophyte	
CLIO GRI	Cliostomum griffithii	multicoloured dot lichen	lichen	
CLLT HER	Callitriche hermaphroditica	autumn water-starwort	forb	
CLLT PAL	Callitriche palustris	vernal water-starwort	forb	
CLLT SPP	Callitriche spp.	water-starwort (genus)	forb	
CLMA BAC	Collema bachmanianum	Bachman's jelly lichen	lichen	
CLMA FUR	Collema furfuraceum	blistered jelly lichen	lichen	
CLMA FUS	Collema fuscovirens		lichen	
CLMA SPP	Collema spp.		lichen	
CLMA TEN	Collema tenax	soil jelly lichen	lichen	
CLMA UND	Collema undulatum	jelly flakes	lichen	
CMPY CHR	Campylium chrysophyllum		bryophyte	
CMPY HIS	Campylium hispidulum	false willow moss	bryophyte	
CMPY POL	Campylium polygamum		bryophyte	
CMPY RAD	Campylium radicale		bryophyte	
CMPY SPP	Campylium spp.		bryophyte	
CMPY STE	Campylium stellatum	yellow star moss	bryophyte	
COEL VIR	Coeloglossum viride	longbracted bog-orchid	forb	
COEL VIR VIR	Coeloglossum viride var. virescens	longbracted bog-orchid	forb	
COLL PAR	Collinsia parviflora	small-flowered blue-eyed-mary	forb	
COLM LIN	Collomia linearis	narrow-leaved collomia	forb	
COMA UMB	Comandra umbellata	bastard toadflax	forb	
COMA UMB PAL	Comandra umbellata ssp. pallida	bastard toadflax	forb	
COMA UMB UMB	Comandra umbellata ssp. umbellata	bastard toadflax	forb	
COMR PAL	Comarum palustre	marsh cinquefoil	forb	
CONA COM	Conardia compacta		bryophyte	
CONI MAC	Conium maculatum	poison-hemlock	forb	
CONR ORI	Conringia orientalis	treacle mustard	forb	
CONS AJA	Consolida ajacis	rocket larkspur	forb	
CONS ORI	Consolida orientalis	oriental larkspur	forb	
CONS SPP	Consolida spp.	larkspur (Consolida genus)	forb	
CONV ARV	Convolvulus arvensis	field bindweed	forb	
CONY CAN	Conyza canadensis	horseweed	forb	
COPT TRI	Coptis trifolia	goldthread	forb	
CORA MAC	Corallorrhiza maculata	spotted coralroot	forb	
CORA SPP	Corallorrhiza spp.	coralroot (genus)	forb	
CORA STR	Corallorrhiza striata	striped coralroot	forb	
CORA TRI	Corallorrhiza trifida	early coralroot	forb	
CORE TIN	Coreopsis tinctoria	golden coreopsis	forb	
CORI AME	Corispermum americanum	American bugseed	forb	
CORI AME AME	Corispermum americanum var. americanum	American bugseed	forb	
CORI HOO	Corispermum hookeri	pale bugseed	forb	
CORI HOO HOO	Corispermum hookeri var. hookeri	pale bugseed	forb	
CORI OCH	Corispermum ochotense	Russian bugseed	forb	
CORI PAL	Corispermum pallasii	pallas bugseed	forb	
CORI SPP	Corispermum spp.	bugseed (genus)	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
CORI VIL	Corispermum villosum	hairy bugseed	forb	
CORN CAN	Cornus canadensis	Canadian bunchberry	forb	
CORN SER	Cornus sericea	red-osier dogwood	erect shrub	
CORN SER STO	Cornus sericea ssp. stolonifera	red-osier dogwood	erect shrub	
CORN SPP	Cornus spp.	dogwood (genus)	erect shrub	
CORY AUR	Corydalis aurea	golden corydalis	forb	
CORY AUR AUR	Corydalis aurea ssp. aurea	golden corydalis	forb	
CORY SEM	Corydalis sempervirens	pink corydalis	forb	
CORY SPP	Corydalis spp.	corydalis (genus)	forb	
COTA TIN	Cota tinctoria	golden marguerite	forb	
COTO ACU	Cotoneaster acutifolius	Peking cotoneaster	erect shrub	
COTO MEL	Cotoneaster melanocarpus	dark-seeded cotoneaster	erect shrub	
COTO SPP	Cotoneaster spp.	cotoneaster (genus)	erect shrub	
CRAS AQU	Crassula aquatica	water pygmyweed	forb	
CRAT CHR	Crataegus chrysocarpa	round-leaved hawthorn	erect shrub	
CRAT DOU	Crataegus douglasii	black-fruited hawthorn	erect shrub	
CRAT DOU DOU	Crataegus douglasii var. douglasii	black-fruited hawthorn	erect shrub	
CRAT SPP	Crataegus spp.	hawthorn (genus)	erect shrub	
CRAT SUC	Crataegus succulenta	succulent hawthorn	erect shrub	
CRDA CHA	Cardaria chalapensis	lens-pod hoary-cress	forb	
CRDA DRA	Cardaria draba	heart-pod hoary-cress	forb	
CRDA PUB	Cardaria pubescens	globe-pod hoary-cress	forb	
CRDA SPP	Cardaria spp.	hoary-cress (genus)	forb	
CRDU NUT	Carduus nutans	nodding thistle	forb	
CREP ATR	Crepis atribarba	dark hawk's-beard	forb	
CREP ATR ATR	Crepis atribarba ssp. atribarba	dark hawk's-beard	forb	
CREP INT	Crepis intermedia	small-flowered hawk's-beard	forb	
CREP OCC	Crepis occidentalis	western hawk’s-beard	forb	
CREP OCC COS	Crepis occidentalis ssp. costata	western hawk’s-beard	forb	
CREP OCC OCC	Crepis occidentalis ssp. occidentalis	western hawk’s-beard	forb	
CREP RUN	Crepis runcinata	scapose hawk's-beard	forb	
CREP RUN GLA	Crepis runcinata ssp. glauca	scapose hawk's-beard	forb	
CREP RUN HIS	Crepis runcinata ssp. hispidulosa	scapose hawk's-beard	forb	
CREP RUN RUN	Crepis runcinata ssp. runcinata	scapose hawk's-beard	forb	
CREP SPP	Crepis spp.	hawk's-beard (genus)	forb	
CREP TEC	Crepis tectorum	narrow-leaf hawk's-beard	forb	
CRNL CAL	Cornicularia californica		lichen	
CRTN FIL	Cratoneuron filicinum	fern moss	bryophyte	
CRYG ACR	Cryptogramma acrostichoides	American rock-fern	forb	
CRYL AME	Corylus americana	American hazelnut	erect shrub	
CRYL COR	Corylus cornuta	beaked hazelnut	erect shrub	
CRYL COR COR	Corylus cornuta var. cornuta	beaked hazelnut	erect shrub	
CRYL SPP	Corylus spp.	hazelnut (genus)	erect shrub	
CRYP CEL	Cryptantha celosioides	butte-candle	forb	
CRYP FEN	Cryptantha fendleri	Fendler’s cryptanthe	forb	
CRYP KEL	Cryptantha kelseyana	Kelsey’s cryptanthe	forb	
CRYP MAC	Cryptantha macounii	Macoun’s cryptanthe	forb	
CRYP MIN	Cryptantha minima	small cryptanthe	forb	
CRYP SPP	Cryptantha spp.	cryptanthe (genus)	forb	

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CTDN PUR	Ceratodon purpureus	purple horn-toothed moss	bryophyte	
CTNA ATR	Catinaria atropurpurea		lichen	
CTNA LAU	Catinaria laureri		lichen	
CTNA SPP	Catinaria spp.		lichen	
CTPY CIN	Catapyrenium cinereum		lichen	
CTPY LCN	Catapyrenium lachneum		lichen	
CTPY LLT	Catapyrenium lacinulatum	brown stipplescale	lichen	
CTPY SPP	Catapyrenium spp.		lichen	
CTPY SQU	Catapyrenium squamulosum		lichen	
CTRL DEL	Cetrariella delisei	snow-bed Iceland lichen	lichen	
CUSC CEP	Cuscuta cephalanthii	buttonbush dodder	forb	
CUSC COR	Cuscuta corylii	hazel dodder	forb	
CUSC GRO	Cuscuta gronovii	common dodder	forb	
CUSC GRO GRO	Cuscuta gronovii var. gronovii	common dodder	forb	
CUSC IND	Cuscuta indecora	large alfalfa dodder	forb	
CUSC MEG	Cuscuta megalocarpa	big-fruit dodder	forb	
CUSC PEN	Cuscuta pentagona	field dodder	forb	
CUSC PEN PEN	Cuscuta pentagona var. pentagona	field dodder	forb	
CUSC SPP	Cuscuta spp.	dodder (genus)	forb	
CYCH XAN	Cyclachaena xanthifolia	false ragweed	forb	
CYCL ATR	Cycloloma atriplicifolium	winged pigweed	forb	
CYMO ACA	Cymopteris acaulis	plains cymopteris	forb	
CYMO ACA ACA	Cymopteris acaulis var. acaulis	plains cymopteris	forb	
CYND STR	Cynodontium strumiferum		bryophyte	
CYNO OFF	Cynoglossum officinale	common hound’s-tongue	forb	
CYNO SPP	Cynoglossum spp.	hound's-tongue (genus)	forb	
CYNO VIR	Cynoglossum virginianum	wild comfry	forb	
CYNO VIR BOR	Cynoglossum virginianum var. boreale	wild comfry	forb	
CYPE ACU	Cyperus acuminatus	taper-tip sedge	graminoid	
CYPE SCH	Cyperus schweinitzii	Schweinitz’s umbrella-sedge	graminoid	
CYPE SPP	Cyperus spp.	umbrella-sedge (genus)	graminoid	
CYPE SQU	Cyperus squarrosus	awned umbrella-sedge	graminoid	
CYPE STR	Cyperus strigosus	straw-colored umbrella-sedge	graminoid	
CYPH NOT	Cyphelium notarisii		lichen	
CYPH SPP	Cyphelium spp.		lichen	
CYPH TIG	Cyphelium tigillare		lichen	
CYPR ACA	Cypripedium acaule	stemless lady’s-slipper	forb	
CYPR ARI	Cypripedium arietinum	ram’s-head lady’s-slipper	forb	
CYPR CAN	Cypripedium candidum	small white lady’s-slipper	forb	
CYPR MON	Cypripedium montanum	mountain lady’s-slipper	forb	
CYPR PAR	Cypripedium parviflorum	yellow lady’s-slipper	forb	
CYPR PAR MAK	Cypripedium parviflorum var. makasin	small yellow lady’s-slipper	forb	
CYPR PAR PUB	Cypripedium parviflorum var. pubescens	large yellow lady’s-slipper	forb	
CYPR PAS	Cypripedium passerinum	sparrow’s-egg lady’s-slipper	forb	
CYPR REG	Cypripedium reginae	showy lady’s-slipper	forb	
CYPR SPP	Cypripedium spp.	lady's-slipper (genus)	forb	
CYST FRA	Cystopteris fragilis	fragile bladder-fern	forb	
CYST MON	Cystopteris montana	mountain bladder-fern	forb	
CYST SPP	Cystopteris spp.	bladder-fern (genus)	forb	

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DACT GLO	Dactylis glomerata	orchard grass	graminoid	
DACT GLO GLO	Dactylis glomerata ssp. glomerata	orchard grass	graminoid	
DALE CAN	Dalea candida	white prairie-clover	forb	
DALE CAN CAN	Dalea candida var. candida	white prairie-clover	forb	
DALE CAN OLI	Dalea candida var. oligophylla	white prairie-clover	forb	
DALE PUR	Dalea purpurea	purple prairie-clover	forb	
DALE PUR PUR	Dalea purpurea var. purpurea	purple prairie-clover	forb	
DALE SPP	Dalea spp.	prairie-clover (genus)	forb	
DALE VIL	Dalea villosa	hairy prairie-clover	forb	
DALE VIL VIL	Dalea villosa var. villosa	hairy prairie-clover	forb	
DANT CAL	Danthonia californica	California wild oat-grass	graminoid	
DANT INT	Danthonia intermedia	timber wild oat-grass	graminoid	
DANT PAR	Danthonia parryi	Parry's wild oat-grass	graminoid	
DANT SPI	Danthonia spicata	poverty wild oat-grass	graminoid	
DANT SPP	Danthonia spp.	oat-grass (genus)	graminoid	
DANT UNI	Danthonia unispicata	one-spike wild oat-grass	graminoid	
DASI FRU	Dasiphora fruticosa	shrubby cinquefoil	erect shrub	
DATU STR	Datura stramonium	jimson-weed	forb	
DAUC CAR	Daucus carota	Queen-Anne's lace	forb	
DCRL HET	Dicranella heteromalla		bryophyte	
DCRL SPP	Dicranella spp.		bryophyte	
DCRL VAR	Dicranella varia		bryophyte	
DCRN CIR	Dicranoweisia cirrata		bryophyte	
DELP BIC	Delphinium bicolor	low larkspur	forb	
DELP BIC BIC	Delphinium bicolor ssp. bicolor	low larkspur	forb	
DELP ELA	Delphinium elatum	candle larkspur	forb	
DELP GLA	Delphinium glaucum	tall larkspur	forb	
DELP SPP	Delphinium spp.	larkspur (Delphinium genus)	forb	
DERM LUR	Dermatocarpon luridum	brook lichen	lichen	
DERM MIN	Dermatocarpon miniatum	common stippleback	lichen	
DERM SPP	Dermatocarpon spp.		lichen	
DESC CES	Deschampsia cespitosa	tufted hair-grass	graminoid	
DESC CES CES	Deschampsia cespitosa ssp. cespitosa	tufted hair-grass	graminoid	
DESC MAC	Deschampsia mackenzieana	Mackenzie hair-grass	graminoid	
DESC SPP	Deschampsia spp.	hair-grass (genus)	graminoid	
DESM CER	Desmatodon cernuus		bryophyte	
DESM HEI	Desmatodon heimii		bryophyte	
DESM OBT	Desmatodon obtusifolius		bryophyte	
DESM SPP	Desmatodon spp.		bryophyte	
DESU INC	Descurainia incana	mountain tansy-mustard	forb	
DESU INC INC	Descurainia incana ssp. incana	grey tansy-mustard	forb	
DESU INC PRO	Descurainia incana ssp. procera	mountain tansy-mustard	forb	
DESU PIN	Descurainia pinnata	short-fruited tansy-mustard	forb	
DESU PIN BRA	Descurainia pinnata ssp. brachycarpa	short-fruited tansy-mustard	forb	
DESU PIN FIL	Descurainia pinnata ssp. filipes	short-fruited tansy-mustard	forb	
DESU SOP	Descurainia sophia	flixweed	forb	
DESU SPP	Descurainia spp.	tansy-mustard (genus)	forb	
DIAN BAR	Dianthus barbatus	sweet william	forb	
DIAN DEL	Dianthus deltoides	maiden pink	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
DIAN SPP	Dianthus spp.	pink (genus)	forb	
DICH ACU	Dichanthelium acuminatum	hairy panic-grass	graminoid	
DICH ACU FAS	Dichanthelium acuminatum ssp. fasciculatum	hairy panic-grass	graminoid	
DICH LEI	Dichanthelium leibergii	Leiberg's panic-grass	graminoid	
DICH PER	Dichanthelium perlongum	long-stalked panic-grass	graminoid	
DICH SPP	Dichanthelium spp.	panic-grass (Dichanthelium genus)	graminoid	
DICH WIL	Dichanthelium wilcoxianum	Wilcox's sand-millet	graminoid	
DICH XAN	Dichanthelium xanthophysum	yellow-green panic-grass	graminoid	
DICR ACU	Dicranum acutifolium	sharp-leaved cushion moss	bryophyte	
DICR ANG	Dicranum angustum		bryophyte	
DICR BON	Dicranum bonjeanii		bryophyte	
DICR ELO	Dicranum elongatum		bryophyte	
DICR FLA	Dicranum flagellare	whip fork moss	bryophyte	
DICR FRA	Dicranum fragilifolium	fragile cushion moss	bryophyte	
DICR FUS	Dicranum fuscescens	curly heron's-bill moss	bryophyte	
DICR MON	Dicranum montanum		bryophyte	
DICR ONT	Dicranum ontariense		bryophyte	
DICR POL	Dicranum polysetum	electric eels	bryophyte	
DICR SCO	Dicranum scoparium	broom moss	bryophyte	
DICR SPP	Dicranum spp.		bryophyte	
DICR TAU	Dicranum tauricum		bryophyte	
DICR UND	Dicranum undulatum	wavy dicranum	bryophyte	
DIDY FAL	Didymodon fallax		bryophyte	
DIER LON	Diervilla lonicera	northern bush-honeysuckle	erect shrub	
DIET CAN	Dieteria canescens	canescent aster	forb	
DIET CAN CAN	Dieteria canescens var. canescens	canescent aster	forb	
DIGI ISC	Digitaria ischaemum	smooth crab-grass	graminoid	
DIGI SAN	Digitaria sanguinalis	hairy crab-grass	graminoid	
DIGI SPP	Digitaria spp.	crab-grass (genus)	graminoid	
DIME ORE	Dimelaena oreina	golden moonglow lichen	lichen	
DIPH COM	Diphasiastrum complanatum	ground-cedar	forb	
DIPH SIT	Diphasiastrum sitchense	Sitka ground-cedar	forb	
DIPH SPP	Diphasiastrum spp.	ground-cedar (genus)	forb	
DIPL MUR	Diplotaxis muralis	sand-rocket	forb	
DIST SPI	Distichlis spicata	inland salt grass	graminoid	
DIST SPI STR	Distichlis spicata var. stricta	inland salt grass	graminoid	
DITR AMB	Ditrichum ambiguum		bryophyte	
DITR FLE	Ditrichum flexicaule	slender-stemmed hair moss	bryophyte	
DITR PUS	Ditrichum pusillum		bryophyte	
DITR SPP	Ditrichum spp.		bryophyte	
DMRL PIN	Dimerella pineti	dimerella lichen	lichen	
DODE CON	Dodecatheon conjugens	mountain shooting-star	forb	
DODE PUL	Dodecatheon pulchellum	beautiful shooting-star	forb	
DODE PUL PUB	Dodecatheon pulchellum var. puberulum	Cusick's shooting-star	forb	
DODE PUL PUL	Dodecatheon pulchellum var. pulchellum	beautiful shooting-star	forb	
DODE SPP	Dodecatheon spp.	shooting-star (genus)	forb	
DOEL UMB	Doellingeria umbellata	flat-topped white aster	forb	
DOEL UMB PUB	Doellingeria umbellata var. pubens	flat-topped white aster	forb	
DOWN LAE	Downingia laeta	bright downingia	forb	

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DPLS ACT	Diploschistes actinostomus		lichen	
DPLS CAN	Diploschistes canadensis		lichen	
DPLS GYP	Diploschistes gypsaceus		lichen	
DPLS MUS	Diploschistes muscorum	cowpie lichen	lichen	
DPLS SCR	Diploschistes scruposus	crater lichen	lichen	
DPLS SPP	Diploschistes spp.		lichen	
DRAB AUR	Draba aurea	golden whitlow-grass	forb	
DRAB BRE	Draba breweri	hoary whitlowgrass	forb	
DRAB BRE CAN	Draba breweri var. cana	hoary whitlowgrass	forb	
DRAB CIN	Draba cinerea	ashy whitlow-grass	forb	
DRAB NEM	Draba nemorosa	yellow whitlow-grass	forb	
DRAB REP	Draba reptans	creeping whitlow-grass	forb	
DRAB SPP	Draba spp.	whitlow-grass (genus)	forb	
DRAC PAR	Dracocephalum parviflorum	American dragonhead	forb	
DRAC SPP	Dracocephalum spp.	dragonhead (genus)	forb	
DRAC THY	Dracocephalum thymiflorum	thyme-leaved dragonhead	forb	
DREP ADU	Drepanocladus aduncus	common hook feather moss	bryophyte	
DREP ADU KNE	Drepanocladus aduncus var. kneiffii		bryophyte	
DREP ADU POL	Drepanocladus aduncus var. polycarpus		bryophyte	
DREP SEN	Drepanocladus sendtneri		bryophyte	
DREP SPP	Drepanocladus spp.		bryophyte	
DROS ANG	Drosera anglica	oblong-leaved sundew	forb	
DROS LIN	Drosera linearis	slender-leaved sundew	forb	
DROS ROT	Drosera rotundifolia	round-leaved sundew	forb	
DROS ROT ROT	Drosera rotundifolia var. rotundifolia	round-leaved sundew	forb	
DROS SPP	Drosera spp.	sundew (genus)	forb	
DRYA DRU	Dryas drummondii	yellow mountain-avens	forb	
DRYA DRU DRU	Dryas drummondii var. drummondii	yellow mountain-avens	forb	
DRYO CAR	Dryopteris carthusiana	spinulose shield-fern	forb	
DRYO CRI	Dryopteris cristata	crested shield-fern	forb	
DRYO FIL	Dryopteris filix-mas	male fern	forb	
DRYO FRA	Dryopteris fragrans	fragrant shield-fern	forb	
DRYO SPP	Dryopteris spp.	shield-fern (genus)	forb	
DSTM CAP	Distichium capillaceum	erect-fruited iris moss	bryophyte	
DSTM INC	Distichium inclinatum		bryophyte	
DSTM SPP	Distichium spp.		bryophyte	
DYSS PAP	Dyssodia papposa	fetid-marigold	forb	
ECHC CRU	Echinochloa crusgalli	barnyard grass	graminoid	
ECHC MUR	Echinochloa muricata	rough barnyard grass	graminoid	
ECHC SPP	Echinochloa spp.	barnyard grass (genus)	graminoid	
ECHI ANG	Echinacea angustifolia	narrow-leaved prairie coneflower	forb	
ECHI ANG ANG	Echinacea angustifolia var. angustifolia	narrow-leaved prairie coneflower	forb	
ECHM VUL	Echium vulgare	viper’s bugloss	forb	
ECHO LOB	Echinocystis lobata	wild cucumber	forb	
ECHP EXA	Echinops exaltatus	tall globe-thistle	forb	
ECHP SPH	Echinops sphaerocephala	great globe-thistle	forb	
ECHP SPP	Echinops spp.	globe-thistle (genus)	forb	
ELAE ANG	Elaeagnus angustifolia	Russian-olive	erect shrub	
ELAE COM	Elaeagnus commutata	wolf-willow	erect shrub	

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ELAE SPP	Elaeagnus spp.	silverberry (genus)	erect shrub	
ELAT RUB	Elatine rubella	mud purslane	forb	
ELEO ACI	Eleocharis acicularis	needle spike-rush	graminoid	
ELEO ACI ACI	Eleocharis acicularis var. acicularis	needle spike-rush	graminoid	
ELEO COL	Eleocharis coloradoensis	dwarf spike-rush	graminoid	
ELEO COM	Eleocharis compressa	flat-stem spike-rush	graminoid	
ELEO COM ACU	Eleocharis compressa var. acutisquamata	flat-stem spike-rush	graminoid	
ELEO ELL	Eleocharis elliptica	elliptic spike-rush	graminoid	
ELEO ENG	Eleocharis engelmannii	Engelmann’s spike-rush	graminoid	
ELEO ERY	Eleocharis erythropoda	bald spike-rush	graminoid	
ELEO MAC	Eleocharis macrostachya	pale spike-rush	graminoid	
ELEO MAM	Eleocharis mamillata	soft-stem spike-rush	graminoid	
ELEO MAM MAM	Eleocharis mamillata ssp. mamillata	soft-stem spike-rush	graminoid	
ELEO NIT	Eleocharis nitida	neat spike-rush	graminoid	
ELEO PAL	Eleocharis palustris	common spike-rush	graminoid	
ELEO QUI	Eleocharis quinqueflora	few-flowered spike-rush	graminoid	
ELEO SPP	Eleocharis spp.	spike-rush (genus)	graminoid	
ELEO UNI	Eleocharis uniglumis	one-glumed spike-rush	graminoid	
ELLI NYC	Ellisia nyctelea	waterpod	forb	
ELOD BIF	Elodea bifoliata	two-leaved waterweed	forb	
ELOD CAN	Elodea canadensis	Canada waterweed	forb	
ELOD SPP	Elodea spp.	waterweed (genus)	forb	
ELYH MAC	X Elyhordeum macounii	Macoun's wild-rye	graminoid	
ELYM ALB	Elymus albicans	awned northern wheat-grass	graminoid	
ELYM CAN	Elymus canadensis	Canada wild-rye	graminoid	
ELYM CUR	Elymus curvatus	awnless Virginia wild-rye	graminoid	
ELYM DIV	Elymus diversiglumis	variable-glumed wild-rye	graminoid	
ELYM ELY	Elymus elymoides	common squirrel-tail	graminoid	
ELYM ELY ELY	Elymus elymoides ssp. elymoides	common squirrel-tail	graminoid	
ELYM GLA	Elymus glaucus	blue wild-rye	graminoid	
ELYM GLA GLA	Elymus glaucus ssp. glaucus	blue wild-rye	graminoid	
ELYM LAN	Elymus lanceolatus	northern wheat-grass	graminoid	
ELYM LAN LAN	Elymus lanceolatus var. lanceolatus	northern wheat-grass	graminoid	
ELYM LAN PSA	Elymus lanceolatus ssp. psammophilus	sand-dune wheat-grass	graminoid	
ELYM LAN RIP	Elymus lanceolatus var. riparius	streambank wheat-grass	graminoid	
ELYM REP	Elymus repens	quack grass	graminoid	
ELYM SPP	Elymus spp.	wheat-grass or wild-rye (Elymus genus)	graminoid	
ELYM TRA	Elymus trachycaulus	slender wheat-grass	graminoid	
ELYM TRA SUB	Elymus trachycaulus ssp. subsecundus	awned wheat-grass	graminoid	
ELYM TRA TRA	Elymus trachycaulus ssp. trachycaulus	slender wheat-grass	graminoid	
ELYM VIR	Elymus virginicus	Virginia wild-rye	graminoid	
ELYM VIR JEJ	Elymus virginicus var. jejunus	Virginia wild-rye	graminoid	
ELYM VIR VIR	Elymus virginicus var. virginicus	Virginia wild-rye	graminoid	
ELYM WIE	Elymus wiegandii	Wiegand’s wild-rye	graminoid	
EMPE NIG	Empetrum nigrum	black crowberry	erect shrub	
EMPE NIG HER	Empetrum nigrum ssp. hermaphroditicum	black crowberry	erect shrub	
ENDO PUS	Endocarpon pusillum	scaly stippled lichen	lichen	
ENDO SPP	Endocarpon spp.		lichen	
ENDO WIL	Endocarpon wilmsoides		lichen	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
EPHE LAN	Ephebe lanata	rockshag lichen	lichen	
EPHM SER	Ephemerum serratum		bryophyte	
EPHM SPI	Ephemerum spinulosum		bryophyte	
EPHM SPP	Ephemerum spp.		bryophyte	
EPIL BRA	Epilobium brachycarpum	annual willow-herb	forb	
EPIL CIL	Epilobium ciliatum	northern willow-herb	forb	
EPIL CIL CIL	Epilobium ciliatum ssp. ciliatum	northern willow-herb	forb	
EPIL CIL GLA	Epilobium ciliatum ssp. glandulosum	northern willow-herb	forb	
EPIL DAV	Epilobium davuricum	Dahurian willow-herb	forb	
EPIL HAL	Epilobium halleanum	Hall's willow-herb	forb	
EPIL LEP	Epilobium leptophyllum	narrow-leaved willow-herb	forb	
EPIL PAL	Epilobium palustre	marsh willow-herb	forb	
EPIL PYG	Epilobium pygmaeum	smooth boisduvalia	forb	
EPIL SPP	Epilobium spp.	willow-herb (genus)	forb	
EQUI ARV	Equisetum arvense	field horsetail	forb	
EQUI FLU	Equisetum fluviatile	swamp horsetail	forb	
EQUI HYE	Equisetum hyemale	tall scouring-rush	forb	
EQUI HYE AFF	Equisetum hyemale ssp. affine	tall scouring-rush	forb	
EQUI LAE	Equisetum laevigatum	smooth scouring-rush	forb	
EQUI PAL	Equisetum palustre	marsh horsetail	forb	
EQUI PRA	Equisetum pratense	meadow horsetail	forb	
EQUI SCI	Equisetum scirpoides	dwarf scouring-rush	forb	
EQUI SPP	Equisetum spp.	horsetail (genus)	forb	
EQUI SYL	Equisetum sylvaticum	woodland horsetail	forb	
EQUI VAR	Equisetum variegatum	variegated scouring-rush	forb	
EQUI VAR VAR	Equisetum variegatum ssp. variegatum	variegated scouring-rush	forb	
ERAG CIL	Eragrostis cilianensis	stink-grass	graminoid	
ERAG HYP	Eragrostis hypnoides	teal love-grass	graminoid	
ERAG MIN	Eragrostis minor	little love-grass	graminoid	
ERAG PEC	Eragrostis pectinacea	purple love-grass	graminoid	
ERAG SPP	Eragrostis spp.	love-grass (genus)	graminoid	
ERCA GAL	Erucastrum gallicum	common dog-mustard	forb	
EREM CON	Eremogone congesta	rocky-ground sandwort	forb	
EREM CON LIT	Eremogone congesta var. lithophila	rocky-ground sandwort	forb	
ERIC NAU	Ericameria nauseosa	rubber rabbit-brush	forb	
ERIC NAU GRA	Ericameria nauseosa var. graveolens	rubber rabbit-brush	forb	
ERIC NAU NAU	Ericameria nauseosa var. nauseosa	rubber rabbit-brush	forb	
ERIG ACR	Erigeron acris	bitter fleabane	forb	
ERIG ACR KAM	Erigeron acris var. kamtschaticus	bitter fleabane	forb	
ERIG ANN	Erigeron annuus	annual fleabane	forb	
ERIG CAE	Erigeron caespitosus	tufted fleabane	forb	
ERIG COM	Erigeron compositus	compound fleabane	forb	
ERIG ELA	Erigeron elatus	tall white fleabane	forb	
ERIG GLA	Erigeron glabellus	smooth fleabane	forb	
ERIG GLA GLA	Erigeron glabellus var. glabellus	smooth fleabane	forb	
ERIG GLA PUB	Erigeron glabellus var. pubescens	smooth fleabane	forb	
ERIG HYS	Erigeron hyssopifolius	hyssop-leaved fleabane	forb	
ERIG HYS HYS	Erigeron hyssopifolius var. hyssopifolius	hyssop-leaved fleabane	forb	
ERIG LON	Erigeron lonchophyllus	short-rayed fleabane	forb	

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ERIG PHI	Erigeron philadelphicus	Philadelphia fleabane	forb	
ERIG PHI PHI	Erigeron philadelphicus var. philadelphicus	Philadelphia fleabane	forb	
ERIG PUM	Erigeron pumilus	shaggy fleabane	forb	
ERIG PUM PUM	Erigeron pumilus ssp. pumilus	shaggy fleabane	forb	
ERIG RAD	Erigeron radicatus	tap-rooted fleabane	forb	
ERIG SPP	Erigeron spp.	fleabane (genus)	forb	
ERIG STR	Erigeron strigosus	rough daisy fleabane	forb	
ERIG STR SEP	Erigeron strigosus var. septentrionalis	rough daisy fleabane	forb	
ERIG STR STR	Erigeron strigosus var. strigosus	rough daisy fleabane	forb	
ERIO CER	Eriogonum cernuum	nodding umbrella-plant	forb	
ERIO CER CER	Eriogonum cernuum var. cernuum	nodding umbrella-plant	forb	
ERIO FLA	Eriogonum flavum	yellow umbrella-plant	forb	
ERIO FLA FLA	Eriogonum flavum var. flavum	yellow umbrella-plant	forb	
ERIO PAU	Eriogonum pauciflorum	few-flowered umbrella-plant	forb	
ERIO PAU PAU	Eriogonum pauciflorum var. pauciflorum	few-flowered umbrella-plant	forb	
ERIO SPP	Eriogonum spp.	umbrella-plant (genus)	forb	
ERMP TRI	Eremopyrum triticeum	annual false wheat-grass	graminoid	
EROD CIC	Erodium cicutarium	stork's-bill	forb	
EROD CIC CIC	Erodium cicutarium ssp. cicutarium	stork's-bill	forb	
EROP ANG	Eriophorum angustifolium	narrow-leaved cotton-grass	graminoid	
EROP ANG ANG	Eriophorum angustifolium ssp. angustifolium	narrow-leaved cotton-grass	graminoid	
EROP BRA	Eriophorum brachyantherum	close-sheathed cotton-grass	graminoid	
EROP BRA BRA	Eriophorum brachyantherum var. brachyantherum	close-sheathed cotton-grass	graminoid	
EROP CHA	Eriophorum chamissonis	Chamisso's cotton-grass	graminoid	
EROP GRA	Eriophorum gracile	slender cotton-grass	graminoid	
EROP SCH	Eriophorum scheuchzeri	white cotton-grass	graminoid	
EROP SPP	Eriophorum spp.	cotton-grass (genus)	graminoid	
EROP VAG	Eriophorum vaginatum	sheathed cotton-grass	graminoid	
EROP VIR	Eriophorum viridicarinatum	greenkeeled cotton-grass	graminoid	
ERUC VES	Eruca vesicaria	garden rocket	forb	
ERUC VES SAT	Eruca vesicaria ssp. sativa	garden rocket	forb	
ERYN PLA	Eryngium planum	flat eryngo	forb	
ERYS ASP	Erysimum asperum	western wallflower	forb	
ERYS CHE	Erysimum cheiranthoides	wormseed mustard	forb	
ERYS HIE	Erysimum hieraciifolium	gray rocket	forb	
ERYS INC	Erysimum inconspicuum	small-flowered wallflower	forb	
ERYS INC INC	Erysimum inconspicuum var. inconspicuum	small-flowered wallflower	forb	
ERYS SPP	Erysimum spp.	wallflower (genus)	forb	
ESCH CAL	Eschscholzia californica	California-poppy	forb	
ESCH CAL CAL	Eschscholzia californica ssp. californica	California-poppy	forb	
ESCO VIV	Escobaria vivipara	purple pincushion cactus	cactus	
EUPH CYP	Euphorbia cyparissias	cypress spurge	forb	
EUPH ESU	Euphorbia esula	leafy spurge	forb	
EUPH ESU ESU	Euphorbia esula var. esula	leafy spurge	forb	
EUPH ESU URA	Euphorbia esula var. uralensis	narrow leafy spurge	forb	
EUPH HEL	Euphorbia helioscopia	wartweed	forb	
EUPH LUC	Euphorbia lucida	shining spurge	forb	
EUPH MAR	Euphorbia marginata	snow-on-the-mountain	forb	
EUPH PEP	Euphorbia peplus	petty spurge	forb	

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EUPH SPP	Euphorbia spp.	spurge (Euphorbia genus)	forb	
EUPR SUB	Euphrasia subarctica	arctic eyebright	forb	
EURH PUL	Eurhynchium pulchellum	common beaked moss	bryophyte	
EURY CON	Eurybia conspicua	showy aster	forb	
EUTH GRA	Euthamia graminifolia	grass-leaved goldenrod	forb	
EUTH GRA GRA	Euthamia graminifolia var. graminifolia	grass-leaved goldenrod	forb	
EUTR MAC	Eutrochium maculatum	spotted joe-pye-weed	forb	
EVER MES	Evernia mesomorpha	boreal oakmoss lichen	lichen	
EVER PRU	Evernia prunastri	oakmoss lichen	lichen	
EVER SPP	Evernia spp.		lichen	
FAGO ESC	Fagopyrum esculentum	buckwheat	forb	
FAGO SPP	Fagopyrum spp.	buckwheat (genus)	forb	
FAGO TAT	Fagopyrum tataricum	Tartary buckwheat	forb	
FALL CIL	Fallopia cilinodis	fringed black bindweed	forb	
FALL CON	Fallopia convolvulus	wild buckwheat	forb	
FALL SCA	Fallopia scandens	climbing false buckwheat	forb	
FALL SPP	Fallopia spp.	bindweed (genus)	forb	
FEST ALT	Festuca altaica	rough fescue	graminoid	
FEST ALT HAL	Festuca altaica ssp. hallii	plains rough fescue	graminoid	
FEST ALT MAJ	Festuca altaica var. major	mountain rough fescue	graminoid	
FEST BRA	Festuca brachyphylla	short-leaf fescue	graminoid	
FEST BRA BRA	Festuca brachyphylla ssp. brachyphylla	short-leaf fescue	graminoid	
FEST IDA	Festuca idahoensis	Idaho fescue	graminoid	
FEST IDA IDA	Festuca idahoensis var. idahoensis	Idaho fescue	graminoid	
FEST OVI	Festuca ovina	sheep fescue	graminoid	
FEST PRO	Festuca prolifera	proliferous red fescue	graminoid	
FEST PRO LAS	Festuca prolifera var. lasiolepis	proliferous red fescue	graminoid	
FEST RUB	Festuca rubra	red fescue	graminoid	
FEST RUB ARC	Festuca rubra ssp. arctica	arctic red fescue	graminoid	
FEST RUB RUB	Festuca rubra ssp. rubra	red fescue	graminoid	
FEST SAX	Festuca saximontana	Rocky Mountain fescue	graminoid	
FEST SAX SAX	Festuca saximontana var. saximontana	Rocky Mountain fescue	graminoid	
FEST SPP	Festuca spp.	fescue (genus)	graminoid	
FEST TRA	Festuca trachyphylla	hard fescue	graminoid	
FISS ADI	Fissidens adianthoides		bryophyte	
FISS BRY	Fissidens bryoides		bryophyte	
FISS PAU	Fissidens pauperculus	fissidens moss	bryophyte	
FISS SPP	Fissidens spp.		bryophyte	
FLAV CAP	Flavoparmelia caperata	common greenshield lichen	lichen	
FLVT FLA	Flavopunctelia flaventior	speckled greenshield	lichen	
FLVT SOR	Flavopunctelia soredica	powder-edged speckled greenshield	lichen	
FLVT SPP	Flavopunctelia spp.		lichen	
FONT ANT	Fontinalis antipyretica		bryophyte	
FONT HYP	Fontinalis hypnoides		bryophyte	
FONT SPP	Fontinalis spp.		bryophyte	
FORB INC	FORB INCREASERS	forb increasers	forb	
FRAG SPP	Fragaria spp.	strawberry (genus)	forb	
FRAG VES	Fragaria vesca	American woodland strawberry	forb	
FRAG VES AME	Fragaria vesca ssp. americana	American woodland strawberry	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
FRAG VIR	Fragaria virginiana	smooth wild strawberry	forb	
FRAG VIR GLA	Fragaria virginiana ssp. glauca	smooth wild strawberry	forb	
FRAN ALN	Frangula alnus	glossy buckthorn	erect shrub	
FRAX PEN	Fraxinus pennsylvanica	green ash	tree	gA
FULG BRA	Fulgensia bracteata	tundra sulphur lichen	lichen	
FULG FUL	Fulgensia fulgens		lichen	
FULG SPP	Fulgensia spp.		lichen	
FUMA OFF	Fumaria officinalis	common fumitory	forb	
FUNA HYG	Funaria hygrometrica	cord moss	bryophyte	
FUSC PRA	Fuscopannaria praetermissa	moss shingle lichen	lichen	
GAIL ARI	Gaillardia aristata	great blanket-flower	forb	
GALE BIF	Galeopsis bifida	split-lip hemp-nettle	forb	
GALE SPP	Galeopsis spp.	hemp-nettle (genus)	forb	
GALE TET	Galeopsis tetrahit	common hemp-nettle	forb	
GALE TET TET	Galeopsis tetrahit var. tetrahit	common hemp-nettle	forb	
GALI APA	Galium aparine	cleavers	forb	
GALI BOR	Galium boreale	northern bedstraw	forb	
GALI BRE	Galium brevipes	limestone-swamp bedstraw	forb	
GALI LAB	Galium labradoricum	northern bog bedstraw	forb	
GALI SPP	Galium spp.	bedstraw (genus)	forb	
GALI TRI	Galium trifidum	small bedstraw	forb	
GALI TRI TRI	Galium trifidum var. trifidum	small bedstraw	forb	
GALI TRL	Galium triflorum	sweet-scented bedstraw	forb	
GALN QUA	Galinsoga quadriradiata	quickweed	forb	
GAUL HIS	Gaultheria hispidula	creeping snowberry	prostrate shrub	
GAUR COC	Gaura coccinea	scarlet gaura	forb	
GENT AFF	Gentiana affinis	prairie gentian	forb	
GENT AND	Gentiana andrewsii	closed gentian	forb	
GENT AND DAK	Gentiana andrewsii var. dakotica	closed gentian	forb	
GENT FRE	Gentiana fremontii	moss gentian	forb	
GENT PUB	Gentiana puberulenta	downy gentian	forb	
GENT SPP	Gentiana spp.	gentian (Gentiana genus)	forb	
GEOC LIV	Geocaulon lividum	northern comandra	forb	
GERA BIC	Geranium bicknellii	Bicknell's wild geranium	forb	
GERA CAR	Geranium carolinianum	Carolina geranium	forb	
GERA CAR SPH	Geranium carolinianum var. sphaerospermum	Carolina geranium	forb	
GERA PRA	Geranium pratense	meadow geranium	forb	
GERA PUS	Geranium pusillum	small-flowered geranium	forb	
GERA RIC	Geranium richardsonii	Richardson's geranium	forb	
GERA SPP	Geranium spp.	geranium (genus)	forb	
GERA VIS	Geranium viscossissimum	purple geranium	forb	
GERA VIS INC	Geranium viscossissimum var. incisum	purple geranium	forb	
GERA VIS VIS	Geranium viscossissimum var. viscosissimum	sticky purple geranium	forb	
GEUM ALE	Geum aleppicum	yellow avens	forb	
GEUM MAC	Geum macrophyllum	cut-leaf avens	forb	
GEUM MAC PER	Geum macrophyllum var. perincisum	cut-leaf avens	forb	
GEUM RIV	Geum rivale	purple avens	forb	
GEUM SPP	Geum spp.	avens (genus)	forb	
GEUM TRI	Geum triflorum	three-flowered avens	forb	

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GEUM TRI CIL	Geum triflorum var. ciliatum	three-flowered avens	forb	
GEUM TRI TRI	Geum triflorum var. triflorum	three-flowered avens	forb	
GLAU MAR	Glaux maritima	sea-milkwort	forb	
GLEC HED	Glechoma hederacea	ground-ivy	forb	
GLYC BOR	Glyceria borealis	northern manna-grass	graminoid	
GLYC CAN	Glyceria canadensis	rattlesnake manna-grass	graminoid	
GLYC GRA	Glyceria grandis	tall manna-grass	graminoid	
GLYC GRA GRA	Glyceria grandis var. grandis	tall manna-grass	graminoid	
GLYC PUL	Glyceria pulchella	graceful manna-grass	graminoid	
GLYC SPP	Glyceria spp.	manna-grass (genus)	graminoid	
GLYC STR	Glyceria striata	fowl manna-grass	graminoid	
GLYP SCA	Glypholecia scabra		lichen	
GLYY LEP	Glycyrrhiza lepidota	American wild licorice	forb	
GMNS AER	Gymnostomum aeruginosum		bryophyte	
GNAP PAL	Gnaphalium palustre	western marsh cudweed	forb	
GNAP SPP	Gnaphalium spp.	cudweed (genus)	forb	
GNAP ULI	Gnaphalium uliginosum	low cudweed	forb	
GNTI AMA	Gentianella amarella	northern gentian	forb	
GNTI AMA ACU	Gentianella amarella ssp. acuta	northern gentian	forb	
GNTP MAC	Gentianopsis macounii	Macoun’s gentian	forb	
GNTP SPP	Gentianopsis spp.	gentian (Gentianopsis genus)	forb	
GNTP VIR	Gentianopsis virgata	narrow-leaved fringed gentian	forb	
GOOD OBL	Goodyera oblongifolia	giant rattlesnake-plantain	forb	
GOOD REP	Goodyera repens	dwarf lesser rattlesnake-plantain	forb	
GOOD SPP	Goodyera spp.	rattlesnake-plantain (genus)	forb	
GRAP SCR	Graphis scripta	common script lichen	lichen	
GRAT NEG	Gratiola neglecta	clammy hedge-hyssop	forb	
GRIM AFF	Grimmia affinis		bryophyte	
GRIM ANO	Grimmia anodon		bryophyte	
GRIM DON	Grimmia donniana		bryophyte	
GRIM PLA	Grimmia plagiopodia		bryophyte	
GRIM SPP	Grimmia spp.		bryophyte	
GRIN HIR	Grindelia hirsutula	hairy gum-weed	forb	
GRIN SPP	Grindelia spp.	gumweed (genus)	forb	
GRIN SQU	Grindelia squarrosa	curly-cup gum-weed	forb	
GUTI SAR	Gutierrezia sarothrae	common broomweed	forb	
GYMN DRY	Gymnocarpium dryopteris	northern oak-fern	forb	
GYMN JES	Gymnocarpium jessoense	Nahanni oak-fern	forb	
GYMN JES PAR	Gymnocarpium jessoense ssp. parvulum	Nahanni oak-fern	forb	
GYMN SPP	Gymnocarpium spp.	oak-fern (genus)	forb	
GYPS ELE	Gypsophila elegans	showy baby’s-breath	forb	
GYPS PAN	Gypsophila paniculata	tall baby’s-breath	forb	
GYPS SPP	Gypsophila spp.	baby's-breath (genus)	forb	
HACK DEF	Hackelia deflexa	nodding stickseed	forb	
HACK DEF AME	Hackelia deflexa var. americana	nodding stickseed	forb	
HACK FLO	Hackelia floribunda	many-flowered stickseed	forb	
HACK SPP	Hackelia spp.	spurred gentian (genus)	forb	
HAEM LAP	Haematomma lapponicum		lichen	
HALE DEF	Halenia deflexa	American spurred gentian	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
HALE DEF DEF	Halenia deflexa ssp. deflexa	American spurred gentian	forb	
HALI HAL	Halimodendron halodendron	Siberian salt-tree	erect shrub	
HAMA VER	Hamatocaulis vernicosus		bryophyte	
HEDE HIS	Hedeoma hispida	rough false pennyroyal	forb	
HEDW CIL	Hedwigia ciliata		bryophyte	
HEDY ALP	Hedysarum alpinum	American sweet-vetch	forb	
HEDY ALP AME	Hedysarum alpinum ssp. americanum	American sweet-vetch	forb	
HEDY BOR	Hedysarum boreale	northern sweet-vetch	forb	
HEDY BOR BOR	Hedysarum boreale ssp. boreale	northern sweet-vetch	forb	
HEDY BOR MAC	Hedysarum boreale ssp. mackenziei	northern sweet-vetch	forb	
HEDY SPP	Hedysarum spp.	sweet-vetch (genus)	forb	
HELE AUT	Helenium autumnale	common sneezeweed	forb	
HELI ANN	Helianthus annuus	common sun-flower	forb	
HELI MAX	Helianthus maximiliani	Maximilian sunflower	forb	
HELI NUT	Helianthus nuttallii	Nuttall's sunflower	forb	
HELI NUT NUT	Helianthus nuttallii ssp. nuttallii	Nuttall's sunflower	forb	
HELI NUT RYD	Helianthus nuttallii ssp. rydbergii	Nuttall's sunflower	forb	
HELI PAU	Helianthus pauciflorus	stiff sunflower	forb	
HELI PAU PAU	Helianthus pauciflorus ssp. pauciflorus	stiff sunflower	forb	
HELI PAU SUB	Helianthus pauciflorus ssp. subrhomboideus	subrhombic sunflower	forb	
HELI PET	Helianthus petiolaris	prairie sunflower	forb	
HELI PET PET	Helianthus petiolaris ssp. petiolaris	prairie sunflower	forb	
HELI SPP	Helianthus spp.	sunflower (genus)	forb	
HELI TUB	Helianthus tuberosus	Jerusalem-artichoke	forb	
HELM ECH	Helminthotheca echioides	bristly oxtongue	forb	
HELO HEL	Heliopsis helianthoides	false sunflower	forb	
HELO HEL SCA	Heliopsis helianthoides var. scabra	false sunflower	forb	
HELT CUR	Heliotropium curassavicum	seaside heliotrope	forb	
HELT CUR OBO	Heliotropium curassavicum var. obovatum	seaside heliotrope	forb	
HEPP LEP	Heppia leptopholis	stuffed rock-olive	lichen	
HEPP LUT	Heppia lutosa		lichen	
HEPP SPP	Heppia spp.		lichen	
HERA MAX	Heracleum maximum	cow-parsnip	forb	
HERZ TUR	Herzogiella turfacea		bryophyte	
HESP COM	Hesperostipa comata	needle-and-thread	graminoid	
HESP COM COM	Hesperostipa comata ssp. comata	needle-and-thread	graminoid	
HESP COM INT	Hesperostipa comata ssp. intermedia	needle-and-thread	graminoid	
HESP CUR	Hesperostipa curtiseta	western porcupine-grass	graminoid	
HESP SPA	Hesperostipa spartea	porcupine-grass	graminoid	
HESP SPP	Hesperostipa spp.	needle-grass (Hesperostipa genus)	graminoid	
HESR MAT	Hesperis matronalis	dame’s rocket	forb	
HETE VIL	Heterotheca villosa	hairy golden-aster	forb	
HETE VIL HIS	Heterotheca villosa var. hispida	hairy golden-aster	forb	
HETE VIL VIL	Heterotheca villosa var. villosa	hairy golden-aster	forb	
HEUC PAR	Heuchera parvifolia	little-leaf alumroot	forb	
HEUC RIC	Heuchera richardsonii	Richardson’s alumroot	forb	
HEUC SPP	Heuchera spp.	alumroot (genus)	forb	
HGRH LUR	Hygrohypnum luridum		bryophyte	
HIBI TRI	Hibiscus trionum	flower-of-an-hour	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
HIER ALB	Hieracium albiflorum	white-flowered hawkweed	forb	
HIER AUR	Hieracium aurantiacum	orange hawkweed	forb	
HIER SPP	Hieracium spp.	hawkweed (genus)	forb	
HIER UMB	Hieracium umbellatum	narrow-leaved hawkweed	forb	
HIPP RHA	Hippophae rhamnoides	sea-buckthorn	erect shrub	
HIPU VUL	Hippuris vulgaris	common mare's-tail	forb	
HLDM BLA	Helodium blandowii	Blandow's feather moss	bryophyte	
HOMO ADN	Homomallium adnatum		bryophyte	
HORD BRA	Hordeum brachyantherum	meadow barley	graminoid	
HORD BRA BRA	Hordeum brachyantherum ssp. brachyantherum	meadow barley	graminoid	
HORD JUB	Hordeum jubatum	fox-tail barley	graminoid	
HORD JUB INT	Hordeum jubatum ssp. intermedium	short-awned wild barley	graminoid	
HORD JUB JUB	Hordeum jubatum ssp. jubatum	fox-tail barley	graminoid	
HORD PUS	Hordeum pusillum	little barley	graminoid	
HORD SPP	Hordeum spp.	barley (genus)	graminoid	
HORD VUL	Hordeum vulgare	cultivated barley	graminoid	
HORN PRO	Hornungia procumbens	oval-purse	forb	
HOUS CAN	Houstonia canadensis	Canadian summer bluets	forb	
HOUS LON	Houstonia longifolia	long-leaved bluets	forb	
HOUS SPP	Houstonia spp.	bluets (genus)	forb	
HPCN SCA	Hypocenomyce scalaris	common clam lichen	lichen	
HPGM AUS	Hypogymnia austerodes	varnished tube lichen	lichen	
HPGM BIT	Hypogymnia bitteri	powdered tube lichen	lichen	
HPGM ENT	Hypogymnia enteromorpha	budding tube lichen	lichen	
HPGM IMS	Hypogymnia imshaugii	forked tube lichen	lichen	
HPGM PHY	Hypogymnia physodes	monk's-hood lichen	lichen	
HPGM SPP	Hypogymnia spp.		lichen	
HPGM SUB	Hypogymnia subobscura	heath tube lichen	lichen	
HPGM TUB	Hypogymnia tubulosa	powder-headed tube lichen	lichen	
HPTR LAE	Hypotrachyna laevigata		lichen	
HPTR SIN	Hypotrachyna sinuosa	green loop lichen	lichen	
HPTR SPP	Hypotrachyna spp.		lichen	
HUDS TOM	Hudsonia tomentosa	sand-heather	erect shrub	
HUDS TOM TOM	Hudsonia tomentosa var. tomentosa	sand-heather	erect shrub	
HUMU LUP	Humulus lupulus	common hops	forb	
HUMU LUP LPD	Humulus lupulus var. lupuloides	common hops	forb	
HUMU LUP LUP	Humulus lupulus var. lupulus	common hops	forb	
HUMU LUP NEO	Humulus lupulus var. neomexicanus	common hops	forb	
HUPE SEL	Huperzia selago	mountain club-moss	forb	
HUPE SEL DEN	Huperzia selago var. densa	mountain club-moss	forb	
HUPE SEL SEL	Huperzia selago var. selago	mountain club-moss	forb	
HYGR TEN	Hygroamblystegium tenax		bryophyte	
HYLC SPL	Hylocomium splendens	stair-step moss	bryophyte	
HYLO TEL	Hylotelephium telephium	live-forever stonecrop	forb	
HYLO TEL TEL	Hylotelephium telephium ssp. telephium	live-forever stonecrop	forb	
HYME FIL	Hymenopappus filifolius	tufted hymenopappus	forb	
HYME FIL POL	Hymenopappus filifolius var. polycephalus	tufted hymenopappus	forb	
HYMN RIC	Hymenoxys richardsonii	Colorado rubberweed	forb	
HYMN RIC RIC	Hymenoxys richardsonii var. richardsonii	Colorado rubberweed	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
HYOS NIG	Hyoscyamus niger	black henbane	forb	
HYPE MAJ	Hypericum majus	greater St. John's-wort	forb	
HYPN BAM	Hypnum bambergeri		bryophyte	
HYPN CUP	Hypnum cupressiforme	cypress pigtail moss	bryophyte	
HYPN LIN	Hypnum lindbergii	clay pigtail moss	bryophyte	
HYPN PAL	Hypnum pallescens	stump pigtail moss	bryophyte	
HYPN PRA	Hypnum pratense	meadow pigtail moss	bryophyte	
HYPN REC	Hypnum recurvatum		bryophyte	
HYPN REV	Hypnum revolutum	rolled-leafpigtail moss	bryophyte	
HYPN SPP	Hypnum spp.		bryophyte	
HYPN VAU	Hypnum vaucheri		bryophyte	
HYPO RAD	Hypochaeris radicata	hairy cat's-ear	forb	
HYPX HIR	Hypoxis hirsuta	hairy star-grass	forb	
HYSS OFF	Hyssopus officinalis	hyssop	forb	
ICMA ERI	Icmadophila ericetorum	candy lichen	lichen	
IMPA CAP	Impatiens capensis	spotted touch-me-not	forb	
IMPA NOL	Impatiens noli-tangere	western touch-me-not	forb	
IMPA PAL	Impatiens pallida	pale touch-me-not	forb	
IMPA SPP	Impatiens spp.	touch-me-not (genus)	forb	
IMSH ALE	Imshaugia aleurites	salted starburst lichen	lichen	
IMSH PLA	Imshaugia placorodia	american starburst lichen	lichen	
IMSH SPP	Imshaugia spp.		lichen	
INUL HEL	Inula helenium	elecampane	forb	
IONA LAC	Ionaspis lacustris	rusty brook lichen	lichen	
IRIS GER	Iris germanica	German iris	forb	
ISOE ECH	Isoetes echinospora	spiny-spored quillwort	forb	
ISOE LAC	Isoetes lacustris	lake quillwort	forb	
ISOE SPP	Isoetes spp.	quillwort (genus)	forb	
ISOP PUL	Isopterygiopsis pulchella		bryophyte	
IVA* AXI	Iva axillaris	poverty-weed	forb	
JUNC ALP	Juncus alpinoarticulatus	alpine rush	graminoid	
JUNC ARC	Juncus arcticus	Baltic rush	graminoid	
JUNC ARC BAL	Juncus arcticus var. balticus	Baltic rush	graminoid	
JUNC BRE	Juncus brevicaudatus	short-tailed rush	graminoid	
JUNC BUF	Juncus bufonius	toad rush	graminoid	
JUNC CAS	Juncus castaneus	chestnut rush	graminoid	
JUNC CAS CAS	Juncus castaneus ssp. castaneus	chestnut rush	graminoid	
JUNC COM	Juncus compressus	flattened rush	graminoid	
JUNC CON	Juncus confusus	confusing rush	graminoid	
JUNC DUD	Juncus dudleyi	Dudley’s rush	graminoid	
JUNC ENS	Juncus ensifolius	dagger rush	graminoid	
JUNC ENS ENS	Juncus ensifolius var. ensifolius	dagger rush	graminoid	
JUNC ENS MON	Juncus ensifolius var. montanus	Rocky Mountain rush	graminoid	
JUNC FIL	Juncus filiformis	thread rush	graminoid	
JUNC INT	Juncus interior	inland rush	graminoid	
JUNC INT INT	Juncus interior var. interior	inland rush	graminoid	
JUNC LON	Juncus longistylis	long-styled rush	graminoid	
JUNC LON LON	Juncus longistylis var. longistylis	long-styled rush	graminoid	
JUNC MER	Juncus mertensianus	Merten's rush	graminoid	

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JUNC NEV	Juncus nevadensis	Nevada rush	graminoid	
JUNC NOD	Juncus nodosus	knotted rush	graminoid	
JUNC SPP	Juncus spp.	rush (genus)	graminoid	
JUNC STY	Juncus stygius	American bog rush	graminoid	
JUNC STY AME	Juncus stygius ssp. americanus	American bog rush	graminoid	
JUNC TEN	Juncus tenuis	slender rush	graminoid	
JUNC TOR	Juncus torreyi	Torrey's rush	graminoid	
JUNC TRI	Juncus triglumis	pale rush	graminoid	
JUNC TRI ALB	Juncus triglumis var. albescens	pale rush	graminoid	
JUNC VAS	Juncus vaseyi	Vasey's rush	graminoid	
JUNI COM	Juniperus communis	low juniper	erect shrub	
JUNI COM DEP	Juniperus communis var. depressa	low juniper	erect shrub	
JUNI HOR	Juniperus horizontalis	creeping juniper	prostrate shrub	
JUNI SCO	Juniperus scopulorum	Rocky Mountain juniper	erect shrub	
JUNI SPP	Juniperus spp.	juniper (genus)	erect shrub	
KALM MIC	Kalmia microphylla	western bog-laurel	erect shrub	
KALM POL	Kalmia polifolia	northern bog-laurel	erect shrub	
KALM SPP	Kalmia spp.	bog-laurel (genus)	erect shrub	
KNAU ARV	Knautia arvensis	blue-buttons	forb	
KOCH SCO	Kochia scoparia	kochia	forb	
KOCH SCO SCO	Kochia scoparia ssp. scoparia	kochia	forb	
KOEL MAC	Koeleria macrantha	June grass	graminoid	
KRAS LAN	Krascheninnikovia lanata	winterfat	forb	
LACT BIE	Lactuca biennis	tall blue lettuce	forb	
LACT LUD	Lactuca ludoviciana	western wild lettuce	forb	
LACT SER	Lactuca serriola	prickly lettuce	forb	
LACT SPP	Lactuca spp.	wild lettuce (genus)	forb	
LAMI ALB	Lamium album	white dead-nettle	forb	
LAMI AMP	Lamium amplexicaule	henbit	forb	
LAMI SPP	Lamium spp.	dead-nettle (genus)	forb	
LAPO CAN	Laportea canadensis	Canada wood-nettle	forb	
LAPP OCC	Lappula occidentalis	western blue-bur	forb	
LAPP OCC CUP	Lappula occidentalis var. cupulata	western blue-bur	forb	
LAPP OCC OCC	Lappula occidentalis var. occidentalis	western blue-bur	forb	
LAPP SPP	Lappula spp.	blue-bur (genus)	forb	
LAPP SQU	Lappula squarrosa	blue-bur	forb	
LAPS COM	Lapsana communis	common nipplewort	forb	
LARI LAR	Larix laricina	tamarack	tree	tL
LASA PAP	Lasallia papulosa	toadskin lichen	lichen	
LASA PEN	Lasallia pensylvanica	blackened toadskin	lichen	
LASA SPP	Lasallia spp.		lichen	
LATH OCH	Lathyrus ochroleucus	cream-colored vetchling	forb	
LATH PAL	Lathyrus palustris	marsh vetchling	forb	
LATH SAT	Lathyrus sativus	white vetchling	forb	
LATH SPP	Lathyrus spp.	vetchling (genus)	forb	
LATH TUB	Lathyrus tuberosus	tuberous vetchling	forb	
LATH VEN	Lathyrus venosus	purple vetchling	forb	
LAVA THU	Lavatera thuringiaca	gay-mallow	forb	
LCDL CAR	Lecidella carpathica		lichen	

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LCDL ELA	Lecidella elaeochroma		lichen	
LCDL EUP	Lecidella euphorea		lichen	
LCDL SPP	Lecidella spp.		lichen	
LCDL STI	Lecidella stigmatea	disk lichen	lichen	
LCNA CYR	Lecania cyrtella		lichen	
LCNA DUB	Lecania dubitans	bean-spored rim-lichen	lichen	
LCNA ERY	Lecania erysibe		lichen	
LCNA FUS	Lecania fuscella		lichen	
LCNA SPP	Lecania spp.		lichen	
LCNR ALB	Lecanora albopruinosa		lichen	
LCNR ALL	Lecanora allophana	brown-eyed rim-lichen	lichen	
LCNR APS	Lecanora argopholis	varying rim-lichen	lichen	
LCNR ATA	Lecanora argentea		lichen	
LCNR ATT	Lecanora argentata		lichen	
LCNR BER	Lecanora beringii		lichen	
LCNR CAD	Lecanora cadubriae		lichen	
LCNR CEN	Lecanora cenisia	smoky rim-lichen	lichen	
LCNR CIR	Lecanora circumborealis	black-eyed rim-lichen	lichen	
LCNR CON	Lecanora contractula		lichen	
LCNR CRE	Lecanora crenulata		lichen	
LCNR DIS	Lecanora dispersa	mortar rim-lichen	lichen	
LCNR EPI	Lecanora epibryon		lichen	
LCNR FLO	Lecanora flowersiana		lichen	
LCNR GAR	Lecanora garovaglii	sagebrush rim-lichen	lichen	
LCNR HAG	Lecanora hagenii	Hagen's rim-lichen	lichen	
LCNR HAY	Lecanora haydenii	wanderlust lichen	lichen	
LCNR HYP	Lecanora hypoptoides		lichen	
LCNR IMP	Lecanora impudens		lichen	
LCNR INT	Lecanora intricata		lichen	
LCNR MUR	Lecanora muralis	stonewall rim-lichen	lichen	
LCNR PAC	Lecanora pachythallina	shrubby rim-lichen	lichen	
LCNR PIN	Lecanora piniperda	wood-spot rim-lichen	lichen	
LCNR POL	Lecanora polytropa	granite-speck rim-lichen	lichen	
LCNR POP	Lecanora populicola		lichen	
LCNR PUL	Lecanora pulicaris		lichen	
LCNR REP	Lecanora reptans		lichen	
LCNR RUG	Lecanora rugosella		lichen	
LCNR RUP	Lecanora rupicola	white rim-lichen	lichen	
LCNR SAM	Lecanora sambuci		lichen	
LCNR SPP	Lecanora spp.		lichen	
LCNR SUB	Lecanora subintricata		lichen	
LCNR SYM	Lecanora symmicta	fused rim-lichen	lichen	
LCNR VAR	Lecanora varia		lichen	
LECA ABI	Lecanactis abietina	old-wood lichen	lichen	
LECH INT	Lechea intermedia	impoverished pinweed	forb	
LECH INT DEP	Lechea intermedia var. depauperata	impoverished pinweed	forb	
LECI ALA	Lecidea alaiensis		lichen	
LECI ASS	Lecidea assimilis		lichen	
LECI AUR	Lecidea auriculata		lichen	

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LECI BOT	Lecidea botryosa		lichen	
LECI BRA	Lecidea brachyspora	disk lichen	lichen	
LECI DID	Lecidea diducens		lichen	
LECI LAB	Lecidea laboriosa		lichen	
LECI LAP	Lecidea lapicida	gray-orange dick lichen	lichen	
LECI LIM	Lecidea limosa		lichen	
LECI LIT	Lecidea lithophila		lichen	
LECI NYL	Lecidea nylanderi		lichen	
LECI SPP	Lecidea spp.		lichen	
LECI TES	Lecidea tessellata	tile lichen	lichen	
LECI TUR	Lecidea turgidula		lichen	
LEDU GRO	Ledum groenlandicum	common Labrador-tea	erect shrub	
LEDU PAL	Ledum palustre	northern Labrador-tea	erect shrub	
LEDU PAL DEC	Ledum palustre ssp. decumbens	northern Labrador-tea	erect shrub	
LEDU SPP	Ledum spp.	Labrador-tea (genus)	erect shrub	
LEER ORY	Leersia oryzoides	rice cut-grass	graminoid	
LEMN MIN	Lemna minor	lesser duckweed	forb	
LEMN SPP	Lemna spp.	duckweed (genus)	forb	
LEMN TRI	Lemna trisulca	star duckweed	forb	
LEMN TUR	Lemna turionifera	turion duckweed	forb	
LEON CAR	Leonurus cardiaca	motherwort	forb	
LEON CAR CAR	Leonurus cardiaca ssp. cardiaca	motherwort	forb	
LEPI DEN	Lepidium densiflorum	common peppergrass	forb	
LEPI DEN DEN	Lepidium densiflorum var. densiflorum	common peppergrass	forb	
LEPI DEN ELO	Lepidium densiflorum var. elongatum	common peppergrass	forb	
LEPI DEN MAC	Lepidium densiflorum var. macrocarpum	common peppergrass	forb	
LEPI PER	Lepidium perfoliatum	clasping pepper-grass	forb	
LEPI RAM	Lepidium ramosissimum	branched peppergrass	forb	
LEPI RAM BOU	Lepidium ramosissimum var. bourgeauanum	branched peppergrass	forb	
LEPI RAM RAM	Lepidium ramosissimum var. ramosissimum	branched peppergrass	forb	
LEPI RUD	Lepidium ruderale	roadside peppergrass	forb	
LEPI SAT	Lepidium sativum	garden cress	forb	
LEPI SPP	Lepidium spp.	peppergrass (genus)	forb	
LEPR NEG	Lepraria neglecta	zoned dust lichen	lichen	
LEPS SEP	Leptosiphon septentrionalis	northern linanthus	forb	
LEPT FUS	Leptochloa fusca	bearded sprangletop	graminoid	
LEPT FUS FAS	Leptochloa fusca ssp. fascicularis	bearded sprangletop	graminoid	
LESK OBS	Leskea obscura		bryophyte	
LESK POL	Leskea polycarpa		bryophyte	
LESK SPP	Leskea spp.		bryophyte	
LESQ ALP	Lesquerella alpina	alpine bladderpod	forb	
LESQ ARE	Lesquerella arenosa	sand bladderpod	forb	
LESQ ARE ARE	Lesquerella arenosa var. arenosa	sand bladderpod	forb	
LESQ SPP	Lesquerella spp.	bladderpod (genus)	forb	
LETH VUL	Letharia vulpina	wolf lichen	lichen	
LEUC VUL	Leucanthemum vulgare	oxeye-daisy	forb	
LEUP GRA	Leucophysalis grandiflora	large white ground-cherry	forb	
LEVI OFF	Levisticum officinale	garden lovage	forb	
LEYM ANG	Leymus angustus	Altai wild-rye	graminoid	

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LEYM CIN	Leymus cinereus	giant wild-rye	graminoid	
LEYM INN	Leymus innovatus	hairy wild-rye	graminoid	
LEYM MOL	Leymus mollis	sea lyme-grass	graminoid	
LEYM MOL MOL	Leymus mollis var. mollis	sea lyme-grass	graminoid	
LEYM SPP	Leymus spp.	wild-rye (Leymus genus)	graminoid	
LIAT LIG	Liatris ligulistylis	northern meadow blazing-star	forb	
LIAT PUN	Liatris punctata	dotted blazing-star	forb	
LIAT PUN PUN	Liatris punctata var. punctata	dotted blazing-star	forb	
LIAT SPP	Liatris spp.	blazing-star (genus)	forb	
LILA SCI	Lilaea scilloides	flowering quillwort	forb	
LILI PHI	Lilium philadelphicum	red lily	forb	
LILI PHI AND	Lilium philadelphicum var. andinum	western red lily	forb	
LILI PHI PHI	Lilium philadelphicum var. philadelphicum	eastern red lily	forb	
LIMO VUL	Limonium vulgare	marsh-rosemary	forb	
LIMP REV	Limprichtia revolvens		bryophyte	
LIMS AQU	Limosella aquatica	awl-leaved mudwort	forb	
LINA DAL	Linaria dalmatica	Dalmatian toadflax	forb	
LINA DAL DAL	Linaria dalmatica ssp. dalmatica	Dalmatian toadflax	forb	
LINA SPP	Linaria spp.	toadflax (genus)	forb	
LINA VUL	Linaria vulgaris	butter-and-eggs	forb	
LINN BOR	Linnaea borealis	American twinflower	prostrate shrub	
LINN BOR AME	Linnaea borealis ssp. americana	American twinflower	prostrate shrub	
LINU COM	Linum compactum	compact yellow flax	forb	
LINU LEW	Linum lewisii	Lewis' wild blue flax	forb	
LINU LEW LEW	Linum lewisii var. lewisii	Lewis' wild blue flax	forb	
LINU RIG	Linum rigidum	large-flowered yellow flax	forb	
LINU RIG RIG	Linum rigidum var. rigidum	large-flowered yellow flax	forb	
LINU SPP	Linum spp.	flax (genus)	forb	
LINU SUL	Linum sulcatum	grooved yellow flax	forb	
LINU SUL SUL	Linum sulcatum var. sulcatum	grooved yellow flax	forb	
LINU USI	Linum usitatissimum	common flax	forb	
LIPA LOE	Liparis loeselii	bog twayblade	forb	
LIST BOR	Listera borealis	northern twayblade	forb	
LIST COR	Listera cordata	heart-leaved twayblade	forb	
LIST SPP	Listera spp.	twayblade (genus)	forb	
LITH GLA	Lithophragma glabrum	bulbous woodland-star	forb	
LOBA PUL	Lobaria pulmonaria	lungwort	lichen	
LOBA SCR	Lobaria scrobiculata	textured lungwort	lichen	
LOBA SPP	Lobaria spp.		lichen	
LOBE DOR	Lobelia dortmanna	water lobelia	forb	
LOBE KAL	Lobelia kalmii	Kalm's lobelia	forb	
LOBE SPI	Lobelia spicata	spiked lobelia	forb	
LOBE SPI HIR	Lobelia spicata var. hirtella	spiked lobelia	forb	
LOBE SPP	Lobelia spp.	lobelia (genus)	forb	
LOBO ALP	Lobothallia alphoplaca	puffed sunken-disk lichen	lichen	
LOGF ARV	Logfia arvensis	common fluffweed	forb	
LOIS PRO	Loiseleuria procumbens	alpine azalea	forb	
LOLI MUL	Lolium multiflorum	Italian rye-grass	graminoid	
LOLI PER	Lolium perenne	perennial rye-grass	graminoid	

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LOLI PRS	Lolium persicum	Persian darnel	graminoid	
LOLI SPP	Lolium spp.	rye-grass (Lolium genus)	graminoid	
LOLI TEM	Lolium temulentum	poison darnel	graminoid	
LOLI TEM TEM	Lolium temulentum ssp. temulentum	poison darnel	graminoid	
LOMA COU	Lomatium cous	cous biscuit-root	forb	
LOMA DIS	Lomatium dissectum	mountain wild-parsnip	forb	
LOMA DIS MUL	Lomatium dissectum var. multifidum	mountain wild-parsnip	forb	
LOMA FOE	Lomatium foeniculaceum	hairy wild-parsley	forb	
LOMA FOE FOE	Lomatium foeniculaceum ssp. foeniculaceum	hairy wild-parsley	forb	
LOMA MAC	Lomatium macrocarpum	large-fruited wild-parsley	forb	
LOMA ORI	Lomatium orientale	oriental wild-parsley	forb	
LOMA SPP	Lomatium spp.	wild-parsley (genus)	forb	
LOMT ROT	Lomatogonium rotatum	marsh-felwort	forb	
LONI DIO	Lonicera dioica	twining honeysuckle	erect shrub	
LONI INV	Lonicera involucrata	bracted honeysuckle	erect shrub	
LONI INV INV	Lonicera involucrata var. involucrata	bracted honeysuckle	erect shrub	
LONI MOR	Lonicera morrowii	Morrow's honeysuckle	erect shrub	
LONI OBL	Lonicera oblongifolia	swamp fly-honeysuckle	erect shrub	
LONI OBL OBL	Lonicera oblongifolia var. oblongifolia	swamp fly-honeysuckle	erect shrub	
LONI SPP	Lonicera spp.	honeysuckle (genus)	erect shrub	
LONI TAT	Lonicera tatarica	Tartarian honeysuckle	erect shrub	
LONI VIL	Lonicera villosa	blue fly-honeysuckle	erect shrub	
LONI VIL SOL	Lonicera villosa var. solonis	blue fly-honeysuckle	erect shrub	
LOTU COR	Lotus corniculatus	bird's-foot trefoil	forb	
LOTU PED	Lotus pedunculatus	large bird's-foot trefoil	forb	
LOTU SPP	Lotus spp.	trefoil (genus)	forb	
LOTU UNI	Lotus unifoliatus	prairie bird's-foot trefoil	forb	
LOTU UNI UNI	Lotus unifoliatus var. unifoliatus	prairie bird's-foot trefoil	forb	
LOXO ELA	Loxospora elatina	ragged-rim lichen	lichen	
LPDT RIP	Leptodictyum riparium		bryophyte	
LPLM MEM	Leproloma membranaceum	lobed dust lichen	lichen	
LPTB PYR	Leptobryum pyriforme	long-necked bryum	bryophyte	
LPTG LIC	Leptogium lichenoides	tattered jelly-skin	lichen	
LPTG SAT	Leptogium saturninum	bearded jellyskin	lichen	
LPTG SPP	Leptogium spp.		lichen	
LPTG TEN	Leptogium tenuissimum		lichen	
LPTH EPI	Leptorhaphis epidermidis		lichen	
LSKL NER	Leskeella nervosa		bryophyte	
LTHO CAN	Lithospermum canescens	hoary puccoon	forb	
LTHO INC	Lithospermum incisum	narrow-leaved puccoon	forb	
LTHO RUD	Lithospermum ruderale	woolly puccoon	forb	
LTHO SPP	Lithospermum spp.	puccoon (genus)	forb	
LUPI ARG	Lupinus argenteus	silvery lupine	forb	
LUPI ARG ARG	Lupinus argenteus var. argenteus	silvery lupine	forb	
LUPI ARG LAX	Lupinus argenteus var. laxiflorus	silvery lupine	forb	
LUPI PAR	Lupinus parviflorus	silver-stemmed lupine	forb	
LUPI PUS	Lupinus pusillus	small lupine	forb	
LUPI PUS PUS	Lupinus pusillus ssp. pusillus	small lupine	forb	
LUPI SPP	Lupinus spp.	lupine (genus)	forb	

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LUZU ACU	Luzula acuminata	hairy wood-rush	graminoid	
LUZU ACU ACU	Luzula acuminata var. acuminata	hairy wood-rush	graminoid	
LUZU CON	Luzula confusa	northern wood-rush	graminoid	
LUZU MUL	Luzula multiflora	many-flowered wood-rush	graminoid	
LUZU MUL FRI	Luzula multiflora ssp. frigida	many-flowered wood-rush	graminoid	
LUZU MUL MUL	Luzula multiflora ssp. multiflora	many-flowered wood-rush	graminoid	
LUZU PAR	Luzula parviflora	small-flowered wood-rush	graminoid	
LUZU SPP	Luzula spp.	wood-rush (genus)	graminoid	
LYCI BAR	Lycium barbarum	matrimony-vine	forb	
LYCL INU	Lycopodiella inundata	bog club-moss	forb	
LYCO ANN	Lycopodium annotinum	stiff club-moss	forb	
LYCO CLA	Lycopodium clavatum	running club-moss	forb	
LYCO DEN	Lycopodium dendroideum	ground-pine	forb	
LYCO HIC	Lycopodium hickeyi	Hickey's club-moss	forb	
LYCO LAG	Lycopodium lagopus	running club-moss	forb	
LYCO SPP	Lycopodium spp.	club-moss (genus)	forb	
LYCU AME	Lycopus americanus	American waterhorehound	forb	
LYCU ASP	Lycopus asper	rough water-horehound	forb	
LYCU SPP	Lycopus spp.	water-horehound (genus)	forb	
LYCU UNI	Lycopus uniflorus	one-flowered water-horehound	forb	
LYCU UNI UNI	Lycopus uniflorus var. uniflorus	one-flowered water-horehound	forb	
LYGO JUN	Lygodesmia juncea	rush skeleton-weed	forb	
LYSI CIL	Lysimachia ciliata	fringed loosestrife	forb	
LYSI HYB	Lysimachia hybrida	lance-leaved loosestrife	forb	
LYSI SPP	Lysimachia spp.	loosestrife (genus)	forb	
LYSI THY	Lysimachia thyrsiflora	tufted loosestrife	forb	
LYTH SAL	Lythrum salicaria	purple loosestrife	forb	
MADI GLO	Madia glomerata	clustered tarweed	forb	
MAIA CAN	Maianthemum canadense	wild lily-of-the-valley	forb	
MAIA RAC	Maianthemum racemosum	feathery solomon's-seal	forb	
MAIA RAC AMP	Maianthemum racemosum ssp. amplexicaule	feathery solomon's-seal	forb	
MAIA SPP	Maianthemum spp.	solomon's-seal (genus)	forb	
MAIA STE	Maianthemum stellatum	star-flowered solomon's-seal	forb	
MAIA TRI	Maianthemum trifolium	three-leaved solomon's-seal	forb	
MALA MON	Malaxis monophyllos	white adder's-mouth	forb	
MALA MON BRA	Malaxis monophyllos var. brachypoda	white adder's-mouth	forb	
MALA PAL	Malaxis paludosa	bog adder's-mouth	forb	
MALA SPP	Malaxis spp.	adder's-mouth (genus)	forb	
MALC AFR	Malcolmia africana	African stock	forb	
MALV ALC	Malva alcea	vervain mallow	forb	
MALV NEG	Malva neglecta	dwarf mallow	forb	
MALV PAR	Malva parviflora	small-flowered mallow	forb	
MALV PUS	Malva pusilla	round-leaved mallow	forb	
MALV SPP	Malva spp.	mallow (genus)	forb	
MALV SYL	Malva sylvestris	purple mallow	forb	
MALV VER	Malva verticillata	whorled mallow	forb	
MARR VUL	Marrubium vulgare	common horehound	forb	
MARS VES	Marsilea vestita	hairy pepperwort	forb	
MASS CAR	Massalongia carnosa	rockmoss rosette lichen	lichen	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
MATH LON	Matthiola longipetala	evening-stock	forb	
MATR CHA	Matricaria chamomilla	fragrant chamomile	forb	
MATR DIS	Matricaria discoidea	pineapple-weed	forb	
MATR SPP	Matricaria spp.	matricaria (genus)	forb	
MATT STR	Matteuccia struthiopteris	ostrich fern	forb	
MATT STR PEN	Matteuccia struthiopteris var. pensylvanica	ostrich fern	forb	
MCCL SUB	Mycocalicium subtile		lichen	
MCRL DIS	Microcalicium disseminatum		lichen	
MEDI LUP	Medicago lupulina	black medick	forb	
MEDI POL	Medicago polymorpha	bur-clover	forb	
MEDI SAT	Medicago sativa	alfalfa	forb	
MEDI SAT FAL	Medicago sativa ssp. falcata	yellow alfalfa	forb	
MEDI SAT SAT	Medicago sativa ssp. sativa	alfalfa	forb	
MEDI SPP	Medicago spp.	alfalfa (genus)	forb	
MEES LON	Meesia longiseta	long-stalked thread moss	bryophyte	
MEES SPP	Meesia spp.		bryophyte	
MEES TRI	Meesia triquetra	three-angled thread moss	bryophyte	
MEES ULI	Meesia uliginosa	capillary thread moss	bryophyte	
MEGA VER	Megaspora verrucosa	false sunken disk lichen	lichen	
MELA LIN	Melampyrum lineare	American cow-wheat	forb	
MELA LIN LIN	Melampyrum lineare var. lineare	American cow-wheat	forb	
MELI BUL	Melica bulbosa	onion grass	graminoid	
MELL ALB	Melilotus alba	white sweet-clover	forb	
MELL OFF	Melilotus officinalis	yellow sweet-clover	forb	
MELL SPP	Melilotus spp.	sweet-clover (genus)	forb	
MELL WOL	Melilotus wolgica	Volga sweet-clover	forb	
MENE TER	Menegazzia terebrata	treeflute	lichen	
MENT ARV	Mentha arvensis	wild mint	forb	
MENT SPI	Mentha spicata	spearmint	forb	
MENT SPP	Mentha spp.	mint (genus)	forb	
MENY TRI	Menyanthes trifoliata	buck-bean	forb	
MERT LAN	Mertensia lanceolata	lance-leaved lungwort	forb	
MERT LAN LAN	Mertensia lanceolata var. lanceolata	lance-leaved lungwort	forb	
MERT PAN	Mertensia paniculata	tall lungwort	forb	
MERT PAN PAN	Mertensia paniculata var. paniculata	tall lungwort	forb	
MERT SPP	Mertensia spp.	lungwort (genus)	forb	
MICA ASS	Micarea assimilata	dot lichen	lichen	
MICA MEL	Micarea melaena	dot lichen	lichen	
MICA SPP	Micarea spp.		lichen	
MICR OCC	Micranthes occidentalis	western saxifrage	forb	
MICR PEN	Micranthes pensylvanica	swamp saxifrage	forb	
MICR SPP	Micranthes spp.	saxifrage (Micranthes genus)	forb	
MILL EFF	Millium effusum	American millet-grass	graminoid	
MILL EFF CIS	Millium effusum var. cisatlanticum	American millet-grass	graminoid	
MIMU GLA	Mimulus glabratus	smooth monkey-flower	forb	
MIMU GLA JAM	Mimulus glabratus var. jamesii	smooth monkey-flower	forb	
MIMU GUT	Mimulus guttatus	common monkey-flower	forb	
MIMU RIN	Mimulus ringens	blue monkey-flower	forb	
MIMU RIN RIN	Mimulus ringens var. ringens	blue monkey-flower	forb	

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MIMU SPP	Mimulus spp.	monkey-flower (genus)	forb	
MINU DAW	Minuartia dawsonensis	rock sandwort	forb	
MINU RUB	Minuartia rubella	reddish sandwort	forb	
MINU SPP	Minuartia spp.	sandwort (Minuartia genus)	forb	
MIRA ALB	Mirabilis albida	hairy umbrella-wort	forb	
MIRA LIN	Mirabilis linearis	linear-leaved umbrella-wort	forb	
MIRA NYC	Mirabilis nyctaginea	heart-leaved umbrella-wort	forb	
MIRA SPP	Mirabilis spp.	umbrella-wort (genus)	forb	
MITE NUD	Mitella nuda	bishop's-cap	forb	
MLNL ALB	Melanelia albertana	powder-rimmed camouflage lichen	lichen	
MLNL DIS	Melanelia disjuncta	mealy camouflage lichen	lichen	
MLNL ELE	Melanelia elegantula	elegant camouflage lichen	lichen	
MLNL ETA	Melanelia exasperata	camouflage lichen	lichen	
MLNL ETU	Melanelia exasperatula	lustrous camouflage lichen	lichen	
MLNL INF	Melanelia infumata	camouflage lichen	lichen	
MLNL OLI	Melanelia olivacea	spotted camouflage lichen	lichen	
MLNL PAN	Melanelia panniformis	shingled camouflage lichen	lichen	
MLNL SBF	Melanelia subaurifera	abraded camouflage lichen	lichen	
MLNL SBG	Melanelia subargentifera	whiskered camouglage lichen	lichen	
MLNL SBV	Melanelia subolivacea	brown-eyed camouflage lichen	lichen	
MLNL SEP	Melanelia septentrionalis	northern camouflage lichen	lichen	
MLNL SOR	Melanelia sorediata	powdered camouflage lichen	lichen	
MLNL SPP	Melanelia spp.		lichen	
MLNL STY	Melanelia stygia	alpine camouflage lichen	lichen	
MLNL TOM	Melanelia tominii	dimpled camouflage lichen	lichen	
MNIU AMB	Mnium ambiguum		bryophyte	
MNIU MAR	Mnium marginatum	edged lantern moss	bryophyte	
MNIU SPI	Mnium spinulosum	red-mouthed mnium	bryophyte	
MNIU SPP	Mnium spp.		bryophyte	
MNIU STE	Mnium stellare		bryophyte	
MNTZ ALB	Mentzelia albicaulis	white-stemmed evening-star	forb	
MNTZ DEC	Mentzelia decapetala	evening-star	forb	
MNTZ SPP	Mentzelia spp.	evening-star (genus)	forb	
MOEH LAT	Moehringia lateriflora	blunt-leaved sandwort	forb	
MOEH MAC	Moehringia macrophylla	large-leaved sandwort	forb	
MOEH SPP	Moehringia spp.	sandwort (Moehringia genus)	forb	
MONA FIS	Monarda fistulosa	wild bergamot	forb	
MONA FIS MEN	Monarda fistulosa var. menthifolia	wild bergamot	forb	
MONA FIS MOL	Monarda fistulosa var. mollis	soft wild bergamot	forb	
MONE UNI	Monesis uniflora	one-flowered wintergreen	forb	
MONE UNI UNI	Monesis uniflora ssp. uniflora	one-flowered wintergreen	forb	
MONO NUT	Monolepis nuttalliana	spear-leaved goosefoot	forb	
MONR HYP	Monotropa hypopitys	many-flowered pine-sap	forb	
MONR SPP	Monotropa spp.	pine-sap (genus)	forb	
MONR UNI	Monotropa uniflora	Indian-pipe	forb	
MONT LIN	Montia linearis	linear-leaved spring-beauty	forb	
MUHL AND	Muhlenbergia andina	foxtail muhly	graminoid	
MUHL ASP	Muhlenbergia asperifolia	scratch-grass	graminoid	
MUHL CUS	Muhlenbergia cuspidata	plains muhly	graminoid	

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MUHL GLO	Muhlenbergia glomerata	bog muhly	graminoid	
MUHL MEX	Muhlenbergia mexicana	Mexican muhly	graminoid	
MUHL RAC	Muhlenbergia racemosa	marsh muhly	graminoid	
MUHL RIC	Muhlenbergia richardsonis	mat muhly	graminoid	
MUHL SPP	Muhlenbergia spp.	muhly (genus)	graminoid	
MULG PUL	Mulgedium pulchellum	wild blue lettuce	forb	
MUNR SQU	Munroa squarrosa	false buffalo-grass	graminoid	
MUSI DIV	Musineon divaricatum	leafy musineon	forb	
MUSI DIV DIV	Musineon divaricatum var. divaricatum	leafy musineon	forb	
MUSI DIV HOO	Musineon divaricatum var. hookeri	leafy musineon	forb	
MYBL ALP	Mycoblastus alpinus	alpine blood lichen	lichen	
MYBL SAN	Mycoblastus sanguinarius	bloody-heart lichen	lichen	
MYBL SPP	Mycoblastus spp.		lichen	
MYCO BER	Mycobilimbia berengeriana	dot lichen	lichen	
MYCO SAB	Mycobilimbia sabuletorum	six-celled moss-dot	lichen	
MYCO SPP	Mycobilimbia spp.		lichen	
MYCO TET	Mycobilimbia tetramera	four-celled moss-dot	lichen	
MYOS ARV	Myosotis arvensis	field forget-me-not	forb	
MYOU APE	Myosurus apetalus	awned mousetail	forb	
MYOU APE BOR	Myosurus apetalus var. borealis	northern awned mousetail	forb	
MYOU APE MON	Myosurus apetalus var. montanus	mountain awned mousetail	forb	
MYOU MIN	Myosurus minimus	least mousetail	forb	
MYOU SPP	Myosurus spp.	mousetail (genus)	forb	
MYRI GAL	Myrica gale	sweet-gale	erect shrub	
MYRO ALT	Myriophyllum alterniflorum	alternate-flowered water-milfoil	forb	
MYRO PIN	Myriophyllum pinnatum	pinnate water-milfoil	forb	
MYRO SIB	Myriophyllum sibiricum	Siberian water-milfoil	forb	
MYRO SPI	Myriophyllum spicatum	Eurasian spiked water-milfoil	forb	
MYRO SPP	Myriophyllum spp.	water-milfoil (genus)	forb	
MYRO VER	Myriophyllum verticillatum	whorled water-milfoil	forb	
MYUR JUL	Myurella julacea	small mouse-tail moss	bryophyte	
NAJA FLE	Najas flexilis	slender naiad	forb	
NASS VIR	Nassella viridula	green needle-grass	graminoid	
NAST MIC	Nasturtium microphyllum	one-row watercress	forb	
NAST OFF	Nasturtium officinale	two-row watercress	forb	
NAST SPP	Nasturtium spp.	watercress	forb	
NAVA LEU	Navarretia leucocephala	least navarretia	forb	
NAVA LEU MIN	Navarretia leucocephala ssp. minima	least navarretia	forb	
NEOF VER	Neofuscelia verruculifera	camouflage lichen	lichen	
NEPE CAT	Nepeta cataria	catnip	forb	
NEPH ARC	Nephroma arcticum	arctic kidney lichen	lichen	
NEPH BEL	Nephroma bellum	naked kidney lichen	lichen	
NEPH HEL	Nephroma helveticum	fringed kidney lichen	lichen	
NEPH PAR	Nephroma parile	powdery kidney lichen	lichen	
NEPH RES	Nephroma resupinatum	pimpled kidney lichen	lichen	
NEPH SPP	Nephroma spp.		lichen	
NESL PAN	Neslia paniculata	yellow ball-mustard	forb	
NICA PHY	Nicandra physalodes	apple-of-peru	forb	
NOTH CUS	Nothocalais cuspidata	prairie false dandelion	forb	

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NUPH MIC	Nuphar microphyllum	small yellow pond-lily	forb	
NUPH SPP	Nuphar spp.	pond-lily (genus)	forb	
NUPH VAR	Nuphar variegatum	yellow pond-lily	forb	
NUTT TEX	Nuttallanthus texanus	Texas toadflax	forb	
NYMP LEI	Nymphaea leibergii	Leiberg's water-lily	forb	
NYMP ODO	Nymphaea odorata	fragrant white water-lily	forb	
NYMP ODO ODO	Nymphaea odorata ssp. odorata	fragrant white water-lily	forb	
NYMP SPP	Nymphaea spp.	water-lily (genus)	forb	
NYMP TET	Nymphaea tetragona	small white water-lily	forb	
OCHR AND	Ochrolechia androgyna	powdery saucer lichen	lichen	
OCHR ARB	Ochrolechia arborea	saucer lichen	lichen	
OCHR FRI	Ochrolechia frigida	arctic saucer lichen	lichen	
OCHR INA	Ochrolechia inaequatula	saucer lichen	lichen	
OCHR SPP	Ochrolechia spp.		lichen	
OCHR UPS	Ochrolechia upsaliensis	tundra saucer lichen	lichen	
ODON VER	Odontites vernus	late-flowering eyebright	forb	
ODON VER SER	Odontites vernus ssp. serotinus	late-flowering eyebright	forb	
OENO BIE	Oenothera biennis	common evening-primrose	forb	
OENO CES	Oenothera cespitosa	rock-rose	forb	
OENO CES CES	Oenothera cespitosa ssp. cespitosa	rock-rose	forb	
OENO FLA	Oenothera flava	yellow evening-primrose	forb	
OENO FLA FLA	Oenothera flava ssp. flava	yellow evening-primrose	forb	
OENO NUT	Oenothera nuttallii	white evening-primrose	forb	
OENO PAR	Oenothera parviflora	northern evening-primrose	forb	
OENO SPP	Oenothera spp.	evening-primrose (genus)	forb	
OENO VIL	Oenothera villosa	hairy evening-primrose	forb	
OENO VIL STR	Oenothera villosa ssp. strigosa	hairy evening-primrose	forb	
OENO VIL VIL	Oenothera villosa ssp. villosa	hairy evening-primrose	forb	
OMPH UMB	Omphalina umbellifera	greenpea mushroom lichen	lichen	
ONCO SPP	Oncophorus spp.		bryophyte	
ONCO VIR	Oncophorus virens	green spur-fruited fork moss	bryophyte	
ONCO WAH	Oncophorus wahlenbergii	mountain curved-back moss	bryophyte	
ONOB VIC	Onobrychis viciifolia	sainfoil	forb	
ONOS BEJ	Onosmodium bejariense	western false gromwell	forb	
ONOS BEJ OCC	Onosmodium bejariense var. occidentale	western false gromwell	forb	
OPEG VAR	Opegrapha varia	scribble lichen	lichen	
OPHI VEN	Ophioparma ventosa	alpine bloodspot	lichen	
OPUN FRA	Opuntia fragilis	brittle prickly-pear	cactus	
OPUN FRA FRA	Opuntia fragilis var. fragilis	brittle prickly-pear	cactus	
OPUN POL	Opuntia polyacantha	plains prickly-pear	cactus	
OPUN POL POL	Opuntia polyacantha var. polyacantha	plains prickly-pear	cactus	
OPUN SPP	Opuntia spp.	prickly-pear (genus)	cactus	
OROB FAS	Orobanche fasciculata	clustered broomrape	forb	
OROB LUD	Orobanche ludoviciana	Louisiana broomrape	forb	
OROB LUD LUD	Orobanche ludoviciana ssp. ludoviciana	Louisiana broomrape	forb	
OROB SPP	Orobanche spp.	broomrape (genus)	forb	
OROB UNI	Orobanche uniflora	one-flowered broomrape	forb	
ORTH LUT	Orthocarpus luteus	golden-tongue owl's-clover	forb	
ORTL SEC	Orthilia secunda	one-sided wintergreen	forb	

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ORTR ANO	Orthotrichum anomalum		bryophyte	
ORTR OBT	Orthotrichum obtusifolium	blunt-leaved bristle moss	bryophyte	
ORTR PUM	Orthotrichum pumilum		bryophyte	
ORTR SPP	Orthotrichum spp.		bryophyte	
ORTR STR	Orthotrichum strangulatum		bryophyte	
ORTT CHR	Orthothecium chryseum		bryophyte	
ORYZ ASP	Oryzopsis asperifolia	rough-leaved rice-grass	graminoid	
OSMO BER	Osmorhiza berteroi	western sweet-cicely	forb	
OSMO CLA	Osmorhiza claytonii	hairy sweet-cicely	forb	
OSMO DEP	Osmorhiza depauperata	blunt-fruited sweet-cicely	forb	
OSMO LON	Osmorhiza longistylis	long-styled sweet-cicely	forb	
OSMO SPP	Osmorhiza spp.	sweet-cicely (genus)	forb	
OXAL COR	Oxalis corniculata	creeping wood-sorrel	forb	
OXAL DIL	Oxalis dillenii	gray-green wood-sorrel	forb	
OXAL SPP	Oxalis spp.	wood-sorrel (genus)	forb	
OXAL STR	Oxalis stricta	yellow wood-sorrel	forb	
OXYT BES	Oxytropis besseyi	Bessey's locoweed	forb	
OXYT BES BES	Oxytropis besseyi var. besseyi	Bessey's locoweed	forb	
OXYT CAM	Oxytropis campestris	early yellow locoweed	forb	
OXYT CAM DIS	Oxytropis campestris var. dispar	blue late locoweed	forb	
OXYT CAM SPI	Oxytropis campestris var. spicata	early yellow locoweed	forb	
OXYT DEF	Oxytropis deflexa	reflexed locoweed	forb	
OXYT DEF SER	Oxytropis deflexa var. sericea	reflexed locoweed	forb	
OXYT LAM	Oxytropis lambertii	purple locoweed	forb	
OXYT LAM LAM	Oxytropis lambertii var. lambertii	purple locoweed	forb	
OXYT MON	Oxytropis monticola	late yellow locoweed	forb	
OXYT SER	Oxytropis sericea	Rocky Mountain locoweed	forb	
OXYT SER SPE	Oxytropis sericea var. speciosa	Rocky Mountain locoweed	forb	
OXYT SPL	Oxytropis splendens	showy locoweed	forb	
OXYT SPP	Oxytropis spp.	locoweed (genus)	forb	
PACK CAN	Packera cana	silvery groundsel	forb	
PACK IND	Packera indecora	rayless groundsel	forb	
PACK PAP	Packera paupercula	balsam groundsel	forb	
PACK PAU	Packera pauciflora	few-flowered ragwort	forb	
PACK PLA	Packera plattensis	prairie groundsel	forb	
PACK PSE	Packera pseudaurea	golden groundsel	forb	
PACK PSE PSE	Packera pseudaurea var. pseudaurea	golden groundsel	forb	
PACK SPP	Packera spp.	groundsel (Packera genus)	forb	
PACK STR	Packera streptanthifolia	northern ragwort	forb	
PACK STR STR	Packera streptanthifolia var. streptanthifolia	northern ragwort	forb	
PALU SQU	Paludella squarrosa		bryophyte	
PANI CAP	Panicum capillare	witch-grass	graminoid	
PANI MIL	Panicum miliaceum	broomcorn	graminoid	
PANI SPP	Panicum spp.	panic-grass (Panicum genus)	graminoid	
PANI VIR	Panicum virgatum	switch-grass	graminoid	
PANI VIR VIR	Panicum virgatum var. virgatum	switch-grass	graminoid	
PANN CON	Pannaria conoplea	mealy-rimmed shingle lichen	lichen	
PANN PEZ	Pannaria pezizoides	brown-gray moss-shingle	lichen	
PANN SPP	Pannaria spp.		lichen	

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PAPA RHO	Papaver rhoeas	corn poppy	forb	
PAPA SOM	Papaver somniferum	opium poppy	forb	
PAPA SPP	Papaver spp.	poppy (genus)	forb	
PARA LON	Paraleucobryum longifolium		bryophyte	
PARI PEN	Parietaria pensylvanica	Pennsylvania pellitory	forb	
PARI PEN PEN	Parietaria pensylvanica var. pensylvanica	Pennsylvania pellitory	forb	
PARM HAL	Parmelia halei	shield lichen	lichen	
PARM OMP	Parmelia omphalodes	smokey crottle	lichen	
PARM SAX	Parmelia saxatilis	salted shield lichen	lichen	
PARM SPP	Parmelia spp.		lichen	
PARM SQU	Parmelia squarrosa	bottlebrush shield lichen	lichen	
PARM SUL	Parmelia sulcata	hammered shield lichen	lichen	
PARN GLA	Parnassia glauca	glaucous grass-of-parnassus	forb	
PARN KOT	Parnassia kotzebuei	Kotzebue’s grass of-parnassus	forb	
PARN PAL	Parnassia palustris	marsh grass-of-parnassus	forb	
PARN PAL MON	Parnassia palustris var. montanensis	mountain grass-of-parnassus	forb	
PARN PAL PAR	Parnassia palustris var. parviflora	small-flowered grass-of-parnassus	forb	
PARN PAL TEN	Parnassia palustris var. tenuis	marsh grass-of-parnassus	forb	
PARN SPP	Parnassia spp.	grass-of-parnassus (genus)	forb	
PARO SES	Paronychia sessiliflora	low whitlow-wort	forb	
PART QUI	Parthenocissus quinquefolia	Virginia creeper	erect shrub	
PART SPP	Parthenocissus spp.	creeper (genus)	erect shrub	
PART VIT	Parthenocissus vitacea	thicket creeper	erect shrub	
PASC SMI	Pascopyrum smithii	western wheat-grass	graminoid	
PAST SAT	Pastinaca sativa	wild parsnip	forb	
PEDI GRO	Pedicularis groenlandica	elephant’s-head	forb	
PEDI GRO GRO	Pedicularis groenlandica ssp. groenlandica	elephant’s-head	forb	
PEDI LAB	Pedicularis labradorica	Labrador lousewort	forb	
PEDI LAB LAB	Pedicularis labradorica var. labradorica	Labrador lousewort	forb	
PEDI MAC	Pedicularis macrodonta	purple lousewort	forb	
PEDI SPP	Pedicularis spp.	lousewort (genus)	forb	
PEDM ARG	Pediomelum argophyllum	silver-leaf psoralea	forb	
PEDM ESC	Pediomelum esculentum	breadroot	forb	
PEDM SPP	Pediomelum spp.	psoralea (genus)	forb	
PELL GAS	Pellaea gastonyi	Gastony's cliff-brake	forb	
PELL GLA	Pellaea glabella	western smooth cliff-brake	forb	
PELL GLA OCC	Pellaea glabella var. occidentalis	western smooth cliff-brake	forb	
PELL SPP	Pellaea spp.	cliff-brake (genus)	forb	
PELT APH	Peltigera aphthosa	common freckle pelt	lichen	
PELT CAN	Peltigera canina	dog-lichen	lichen	
PELT DID	Peltigera didactyla	alternating dog-lichen	lichen	
PELT ELI	Peltigera elisabethae	concentric pelt	lichen	
PELT EVA	Peltigera evansiana	peppered pelt	lichen	
PELT HOR	Peltigera horizontalis	flat-fruited pelt	lichen	
PELT LEP	Peltigera lepidophora	scaly pelt	lichen	
PELT LEU	Peltigera leucophlebia	ruffed freckle pelt	lichen	
PELT MAL	Peltigera malacea	veinless pelt	lichen	
PELT NEC	Peltigera neckeri	black saddle lichen	lichen	
PELT NEO	Peltigera neopolydactyla	carpet pelt	lichen	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
PELT POL	Peltigera polydactylon	many-fruited pelt	lichen	
PELT PON	Peltigera ponojensis	pale-bellied dog-lichen	lichen	
PELT PRA	Peltigera praetextata	scaly dog-lichen	lichen	
PELT RET	Peltigera retifoveata		lichen	
PELT RUF	Peltigera rufescens	field dog-lichen	lichen	
PELT SCA	Peltigera scabrosa	scabby pelt	lichen	
PELT SPP	Peltigera spp.		lichen	
PELT VEN	Peltigera venosa	fan lichen	lichen	
PENS ALB	Penstemon albidus	white beardtongue	forb	
PENS CON	Penstemon confertus	yellow beardtongue	forb	
PENS GRA	Penstemon gracilis	lilac-flowered beardtongue	forb	
PENS GRA GRA	Penstemon gracilis var. gracilis	lilac-flowered beardtongue	forb	
PENS NIT	Penstemon nitidus	smooth blue beardtongue	forb	
PENS NIT NIT	Penstemon nitidus var. nitidus	smooth blue beardtongue	forb	
PENS PRO	Penstemon procerus	slender blue beardtongue	forb	
PENS PRO PRO	Penstemon procerus var. procerus	slender blue beardtongue	forb	
PENS SPP	Penstemon spp.	beardtongue (genus)	forb	
PERI GAI	Perideridia gairdneri	northern Gairdner's squaw-root	forb	
PERI GAI BOR	Perideridia gairdneri ssp. borealis	northern Gairdner's squaw-root	forb	
PERS AMP	Persicaria amphibia	water smartweed	forb	
PERS AMP EME	Persicaria amphibia var. emersum	water smartweed	forb	
PERS AMP STI	Persicaria amphibia var. stipulacea	water smartweed	forb	
PERS LAP	Persicaria lapathifolia	dock-leaved smartweed	forb	
PERS MAC	Persicaria maculosa	lady's-thumb	forb	
PERS PUN	Persicaria punctata	dotted water smartweed	forb	
PERS SPP	Persicaria spp.	smartweed (genus)	forb	
PERT SER	Peritoma serrulata	pink spider-flower	forb	
PETA FRI	Petasites frigidus	vine-leaved colt's-foot	forb	
PETA FRI NIV	Petasites frigidus var. nivalis	vine-leaved colt's-foot	forb	
PETA PAL	Petasites palmatus	palmate-leaved colt's-foot	forb	
PETA SAG	Petasites sagittatus	arrow-leaved colt's-foot	forb	
PETA SPP	Petasites spp.	colt's-foot (genus)	forb	
PHAC FRA	Phacelia franklinii	Franklin's scorpionweed	forb	
PHAC SPP	Phacelia spp.	scorpionweed (genus)	forb	
PHAC TAN	Phacelia tanacetifolia	tansy scorpionweed	forb	
PHAC THE	Phacelia thermalis	hot springs scorpionweed	forb	
PHAE CER	Phaeophyscia cernohorskyi	hairy shadow lichen	lichen	
PHAE CIL	Phaeophyscia ciliata	smooth shadow lichen	lichen	
PHAE CON	Phaeophyscia constipata	pincushion shadow lichen	lichen	
PHAE NIG	Phaeophyscia nigricans		lichen	
PHAE ORB	Phaeophyscia orbicularis	mealy shadow lichen	lichen	
PHAE PUS	Phaeophyscia pusilloides	pompom shadow lichen	lichen	
PHAE SCI	Phaeophyscia sciastra	dark shadow lichen	lichen	
PHAE SPP	Phaeophyscia spp.		lichen	
PHAL ARU	Phalaris arundinacea	reed canary-grass	graminoid	
PHAL CAN	Phalaris canariensis	common canary-grass	graminoid	
PHAL SPP	Phalaris spp.	canary-grass (genus)	graminoid	
PHAS CUS	Phascum cuspidatum		bryophyte	
PHEG CON	Phegopteris connectilis	narrow beech-fern	forb	

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PHIL FON	Philonotis fontana	aquatic apple moss	bryophyte	
PHIL FON AME	Philonotis fontana var. americana		bryophyte	
PHIL FON PUM	Philonotis fontana var. pumila		bryophyte	
PHIL SPP	Philonotis spp.		bryophyte	
PHLE ALP	Phleum alpinum	mountain timothy	graminoid	
PHLE PRA	Phleum pratense	common timothy	graminoid	
PHLE PRA PRA	Phleum pratense ssp. pratense	common timothy	graminoid	
PHLE SPP	Phleum spp.	timothy (genus)	graminoid	
PHLO ALY	Phlox alyssifolia	blue phlox	forb	
PHLO ALY ALY	Phlox alyssifolia ssp. alyssifolia	blue phlox	forb	
PHLO HOO	Phlox hoodii	moss phlox	forb	
PHLO HOO HOO	Phlox hoodii ssp. hoodii	moss phlox	forb	
PHLO SPP	Phlox spp.	phlox (genus)	forb	
PHRA AUS	Phragmites australis	giant reed-grass	graminoid	
PHRH NIM	Phaeorrhiza nimbosa	phaeorrhiza lichen	lichen	
PHRH SAR	Phaeorrhiza sareptana		lichen	
PHRH SPP	Phaeorrhiza spp.		lichen	
PHSC ADS	Physcia adscendens	hooded rosette lichen	lichen	
PHSC AIP	Physcia aipolia	hoary rosette lichen	lichen	
PHSC CAE	Physcia caesia	blue-gray rosette lichen	lichen	
PHSC DUB	Physcia dubia	powder-tipped rosette lichen	lichen	
PHSC LEP	Physcia leptalea	rosette lichen	lichen	
PHSC MIL	Physcia millegrana	mealy rosette lichen	lichen	
PHSC PHA	Physcia phaea	black-eyed rosette lichen	lichen	
PHSC SPP	Physcia spp.		lichen	
PHSC STE	Physcia stellaris	star rosette lichen	lichen	
PHSC TEN	Physcia tenella	fringed rosette lichen	lichen	
PHSN DET	Physconia detersa	bottlebrush frost lichen	lichen	
PHSN ENT	Physconia enteroxantha	yellow-edged frost lichen	lichen	
PHSN MUS	Physconia muscigena	ground frost lichen	lichen	
PHSN PER	Physconia perisidiosa	crescent frost lichen	lichen	
PHSN SPP	Physconia spp.		lichen	
PHST HOO	Physcomitrium hookeri		bryophyte	
PHST PYR	Physcomitrium pyriforme		bryophyte	
PHST SPP	Physcomitrium spp.		bryophyte	
PHYG LED	Physostegia ledinghamii	Ledingham’s false dragonhead	forb	
PHYG PAR	Physostegia parviflora	western false dragonhead	forb	
PHYG SPP	Physostegia spp.	false dragonhead (genus)	forb	
PHYS PHI	Physalis philadelphica	tomatillo	forb	
PHYS PHI IMM	Physalis philadelphica var. immaculata	tomatillo	forb	
PICE GLA	Picea glauca	white spruce	tree	wS
PICE MAR	Picea mariana	black spruce	tree	bS
PICE SPP	Picea spp.	spruce (genus)	tree	
PICR OPP	Picradeniopsis oppositifolia	opposite-leaved bahia	forb	
PING SPP	Pinguicula spp.	butterwort (genus)	forb	
PING VIL	Pinguicula villosa	hairy butterwort	forb	
PING VUL	Pinguicula vulgaris	common butterwort	forb	
PINU BAN	Pinus banksiana	jack pine	tree	jP
PINU CON	Pinus contorta	lodgepole pine	tree	lP

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PINU CON LAT	Pinus contorta ssp. latifolia	lodgepole pine	tree	
PINU SPP	Pinus spp.	pine (genus)	tree	
PIPT CAN	Piptatherum canadense	Canadian rice-grass	graminoid	
PIPT MIC	Piptatherum micranthum	little-seed rice-grass	graminoid	
PIPT PUN	Piptatherum pungens	northern rice-grass	graminoid	
PIPT SPP	Piptatherum spp.	rice-grass (Piptatherum genus)	graminoid	
PLAC OLI	Placynthiella oligotropha	tar-spot lichen	lichen	
PLAG SCO	Plagiobothrys scouleri	popcorn-flower	forb	
PLAG SCO HIS	Plagiobothrys scouleri var. hispidulus	popcorn-flower	forb	
PLAN ELO	Plantago elongata	linear-leaved plantain	forb	
PLAN ELO ELO	Plantago elongata ssp. elongata	linear-leaved plantain	forb	
PLAN ERI	Plantago eriopoda	saline plantain	forb	
PLAN LAN	Plantago lanceolata	ribwort plantain	forb	
PLAN MAJ	Plantago major	common plantain	forb	
PLAN MAR	Plantago maritima	seaside plantain	forb	
PLAN MAR JUN	Plantago maritima var. juncoides	seaside plantain	forb	
PLAN PAT	Plantago patagonica	woolly plantain	forb	
PLAN PAT PAT	Plantago patagonica var. patagonica	woolly plantain	forb	
PLAN PAT SPI	Plantago patagonica var. spinulosa	spinulose-bracted plantain	forb	
PLAN SPP	Plantago spp.	plantain (genus)	forb	
PLAT AQU	Platanthera aquilonis	northern green bog-orchid	forb	
PLAT DIL	Platanthera dilatata	white bog-orchid	forb	
PLAT DIL DIL	Platanthera dilatata var. dilatata	white bog-orchid	forb	
PLAT HUR	Platanthera huronensis	Lake Huron bog-orchid	forb	
PLAT OBT	Platanthera obtusata	blunt-leaved bog-orchid	forb	
PLAT ORB	Platanthera orbiculata	round-leaved bog-orchid	forb	
PLAT SPP	Platanthera spp.	bog-orchid (genus)	forb	
PLCN NIG	Placynthium nigrum	ink lichen	lichen	
PLEO CHL	Pleopsidium chlorophanum	gold cobblestone lichen	lichen	
PLEO OXY	Pleopsidium oxytonum	gold cobblestone lichen	lichen	
PLEO SPP	Pleopsidium spp.		lichen	
PLEU SCH	Pleurozium schreberi	big red stem feathermoss	bryophyte	
PLGM CIL	Plagiomnium ciliare	toothed mnium	bryophyte	
PLGM CUS	Plagiomnium cuspidatum	woodsy leafy moss	bryophyte	
PLGM DRU	Plagiomnium drummondii	Drummond's leafy moss	bryophyte	
PLGM ELL	Plagiomnium ellipticum	marsh magnificent moss	bryophyte	
PLGM MED	Plagiomnium medium	common leafy moss	bryophyte	
PLGM SPP	Plagiomnium spp.		bryophyte	
PLGP OED	Plagiopus oederiana		bryophyte	
PLGT DEN	Plagiothecium denticulatum		bryophyte	
PLSP SIM	Polysporina simplex	common coal-dust lichen	lichen	
PLST COM	Palustriella commutata		bryophyte	
PLTD JUN	Platydictya jungermannioides		bryophyte	
PLTG REP	Platygyrium repens		bryophyte	
PLTM GLA	Platismatia glauca	varied rag lichen	lichen	
PLTR COM	Polytrichum commune	common hair-cap	bryophyte	
PLTR JUN	Polytrichum juniperinum	juniper hair-cap moss	bryophyte	
PLTR LON	Polytrichum longisetum		bryophyte	
PLTR PIL	Polytrichum piliferum	awned hair-cap	bryophyte	

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PLTR SPP	Polytrichum spp.		bryophyte	
PLTR STR	Polytrichum strictum	bog hair cap	bryophyte	
PLYG BIF	Polygonatum biflorum	great solomon's-seal	forb	
PLYN MON	Polypogon monspeliensis	rabbitfoot grass	graminoid	
PLYO ACH	Polygonum achoreum	leathery knotweed	forb	
PLYO ARE	Polygonum arenastrum	common knotweed	forb	
PLYO AVI	Polygonum aviculare	prostrate knotweed	forb	
PLYO DOU	Polygonum douglasii	Douglas' knotweed	forb	
PLYO DOU DOU	Polygonum douglasii ssp. douglasii	Douglas' knotweed	forb	
PLYO ERE	Polygonum erectum	erect knotweed	forb	
PLYO POL	Polygonum polygaloides	dense-flowered knotweed	forb	
PLYO POL CON	Polygonum polygaloides ssp. confertiflorum	dense-flowered knotweed	forb	
PLYO POL KEL	Polygonum polygaloides ssp. kellogii	Kellogg's knotweed	forb	
PLYO RAM	Polygonum ramosissimum	bushy knotweed	forb	
PLYO RAM PRO	Polygonum ramosissimum var. prolificum	bushy knotweed	forb	
PLYO RAM RAM	Polygonum ramosissimum ssp. ramosissimum	bushy knotweed	forb	
PLYO SAW	Polygonum sawatchense	sawatch knotweed	forb	
PLYO SPP	Polygonum spp.	knotweed (genus)	forb	
PLYP SIB	Polypodium sibiricum	Siberian polypody	forb	
PLYP SPP	Polypodium spp.	polypody (genus)	forb	
PLYP VIR	Polypodium virginianum	common rock polypody	forb	
PMLP AMB	Parmeliopsis ambigua	green starburst lichen	lichen	
PMLP HYP	Parmeliopsis hyperopta	gray starburst lichen	lichen	
PMLP SPP	Parmeliopsis spp.		lichen	
POA* ALP	Poa alpina	alpine blue-grass	graminoid	
POA* ALP ALP	Poa alpina ssp. alpina	alpine blue-grass	graminoid	
POA* ALP VIV	Poa alpina ssp. vivipara	viviparous alpine blue-grass	graminoid	
POA* ANN	Poa annua	annual blue-grass	graminoid	
POA* ARC	Poa arctica	arctic blue-grass	graminoid	
POA* ARC ARC	Poa arctica ssp. arctica	arctic blue-grass	graminoid	
POA* ARC LAN	Poa arctica ssp. lanata	arctic blue-grass	graminoid	
POA* ARI	Poa arida	plains blue-grass	graminoid	
POA* COM	Poa compressa	Canada blue-grass	graminoid	
POA* CUS	Poa cusickii	early blue-grass	graminoid	
POA* CUS PAL	Poa cusickii ssp. pallida	early blue-grass	graminoid	
POA* FEN	Poa fendleriana	mutton-grass	graminoid	
POA* GLA	Poa glauca	glaucous blue-grass	graminoid	
POA* GLA GLA	Poa glauca ssp. glauca	glaucous blue-grass	graminoid	
POA* GLA RUP	Poa glauca ssp. rupicola	timberline glaucous blue-grass	graminoid	
POA* INT	Poa interior	inland blue-grass	graminoid	
POA* NEM	Poa nemoralis	woodland blue-grass	graminoid	
POA* PAL	Poa palustris	fowl blue-grass	graminoid	
POA* PRA	Poa pratensis	Kentucky blue-grass	graminoid	
POA* PRA AGA	Poa pratensis ssp. agassizensis	meadow blue-grass	graminoid	
POA* PRA ALP	Poa pratensis ssp. alpigena	alpine meadow blue-grass	graminoid	
POA* PRA ANG	Poa pratensis ssp. angustifolia	Kentucky blue-grass	graminoid	
POA* PRA PRA	Poa pratensis ssp. pratensis	Kentucky blue-grass	graminoid	
POA* SEC	Poa secunda	secund blue-grass	graminoid	
POA* SEC JUN	Poa secunda ssp. juncifolia	alkali blue-grass	graminoid	

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POA* SEC SEC	Poa secunda ssp. secunda	Sandberg's blue-grass	graminoid	
POA* SPP	Poa spp.	blue-grass (genus)	graminoid	
POA* TRI	Poa trivialis	rough-stalked blue-grass	graminoid	
POA* WHE	Poa wheeleri	Wheeler's blue-grass	graminoid	
POGO URN	Pogonatum urnigerum		bryophyte	
POHL BUL	Pohlia bulbifera		bryophyte	
POHL CRU	Pohlia cruda	glaucous thread moss	bryophyte	
POHL DRU	Pohlia drummondii		bryophyte	
POHL FIL	Pohlia filum		bryophyte	
POHL NUT	Pohlia nutans	copper wire moss	bryophyte	
POHL PRO	Pohlia proligera		bryophyte	
POHL SPH	Pohlia sphagnicola		bryophyte	
POHL SPP	Pohlia spp.		bryophyte	
POHL VEX	Pohlia vexans		bryophyte	
POHL WAH	Pohlia wahlenbergii	pale-leaved thread moss	bryophyte	
POLA DOD	Polanisia dodecandra	clammyweed	forb	
POLA DOD DOD	Polanisia dodecandra ssp. dodecandra	stinking clammyweed	forb	
POLA DOD TRA	Polanisia dodecandra ssp. trachysperma	rough-seeded clammyweed	forb	
POLY ALB	Polygala alba	white milkwort	forb	
POLY PAU	Polygala paucifolia	fringed milkwort	forb	
POLY SEN	Polygala senega	seneca-snakeroot	forb	
POLY SEN SEN	Polygala senega var. senega	seneca-snakeroot	forb	
POLY SPP	Polygala spp.	milkwort (genus)	forb	
POLY VER	Polygala verticillata	whorled milkwort	forb	
POLY VER ISO	Polygala verticillata var. isocycla	whorled milkwort	forb	
POPU ANG	Populus angustifolia	narrow-leaved cottonwood	tree	
POPU BAL	Populus balsamifera	balsam poplar	tree	bP
POPU DEL	Populus deltoides	plains cottonwood	tree	pC
POPU DEL MON	Populus deltoides ssp. monilifera	plains cottonwood	tree	
POPU JAC	Populus X jackii	Jack's poplar	tree	
POPU SPP	Populus spp.	poplar (genus)	tree	
POPU TRE	Populus tremuloides	trembling aspen	tree	tA
PORP CIN	Porpidia cinereoatra	boulder lichen	lichen	
PORP CRU	Porpidia crustulata	concentric boulder lichen	lichen	
PORP LOW	Porpidia lowiana	boulder lichen	lichen	
PORP MAC	Porpidia macrocarpa	boulder lichen	lichen	
PORP SPP	Porpidia spp.		lichen	
PORP THO	Porpidia thomsonii	boulder lichen	lichen	
PORT OLE	Portulaca oleracea	purslane	forb	
POTA ALP	Potamogeton alpinus	northern pondweed	forb	
POTA AMP	Potamogeton amplifolius	large-leaved pondweed	forb	
POTA CRI	Potamogeton crispus	curly pondweed	forb	
POTA EPI	Potamogeton epihydrus	ribbon-leaf pondweed	forb	
POTA FOL	Potamogeton foliosus	leafy pondweed	forb	
POTA FOL FOL	Potamogeton foliosus ssp. foliosus	leafy pondweed	forb	
POTA FRI	Potamogeton friesii	Fries' pondweed	forb	
POTA GRA	Potamogeton gramineus	grass-leaved pondweed	forb	
POTA NAT	Potamogeton natans	floating pondweed	forb	
POTA NOD	Potamogeton nodosus	long-leaved pondweed	forb	

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POTA OBT	Potamogeton obtusifolius	blunt-leaved pondweed	forb	
POTA PRA	Potamogeton praelongus	white-stemmed pondweed	forb	
POTA PUS	Potamogeton pusillus	small pondweed	forb	
POTA PUS PUS	Potamogeton pusillus ssp. pusillus	small pondweed	forb	
POTA PUS TEN	Potamogeton pusillus ssp. tenuissimus	Berchtold's small pondweed	forb	
POTA RIC	Potamogeton richardsonii	Richardson's pondweed	forb	
POTA ROB	Potamogeton robbinsii	Robbin's pondweed	forb	
POTA SPP	Potamogeton spp.	pondweed (Potamogeton genus)	forb	
POTA STR	Potamogeton strictifolius	straight-leaved pondweed	forb	
POTA ZOS	Potamogeton zosteriformis	zostera-like pondweed	forb	
POTE ARG	Potentilla argentea	silvery cinquefoil	forb	
POTE ARG ARG	Potentilla argentea var. argentea	silvery cinquefoil	forb	
POTE ARU	Potentilla arguta	white cinquefoil	forb	
POTE ARU ARG	Potentilla arguta ssp. arguta	white cinquefoil	forb	
POTE BIM	Potentilla bimundorum	cut-leaved cinquefoil	forb	
POTE BIP	Potentilla bipinnatifida	plains cinquefoil	forb	
POTE CON	Potentilla concinna	early cinquefoil	forb	
POTE CON CON	Potentilla concinna var. concinna	early cinquefoil	forb	
POTE DIV	Potentilla diversifolia	variable cinquefoil	forb	
POTE DIV DIV	Potentilla diversifolia var. diversifolia	variable cinquefoil	forb	
POTE GRA	Potentilla gracilis	graceful cinquefoil	forb	
POTE GRA FAS	Potentilla gracilis var. fastigiata	graceful cinquefoil	forb	
POTE GRA FLA	Potentilla gracilis var. flabelliformis	graceful cinquefoil	forb	
POTE GRA GRA	Potentilla gracilis var. gracilis	graceful cinquefoil	forb	
POTE GRA PUL	Potentilla gracilis var. pulcherrima	soft cinquefoil	forb	
POTE HIP	Potentilla hippiana	woolly cinquefoil	forb	
POTE HIP ARG	Potentilla hippiana var. argyrea	woolly cinquefoil	forb	
POTE HIP FIL	Potentilla hippiana var. filicaulis	woolly cinquefoil	forb	
POTE HIP HIP	Potentilla hippiana var. hippiana	woolly cinquefoil	forb	
POTE HOO	Potentilla hookeriana	Hooker's cinquefoil	forb	
POTE HOO CHA	Potentilla hookeriana ssp. chamissonis	Chamisso's cinquefoil	forb	
POTE HOO HOO	Potentilla hookeriana ssp. hookeriana	Hooker's cinquefoil	forb	
POTE NIV	Potentilla nivea	five-foliate cinquefoil	forb	
POTE NIV SUB	Potentilla nivea ssp. subquinata	five-foliate cinquefoil	forb	
POTE NOR	Potentilla norvegica	rough cinquefoil	forb	
POTE NOR MON	Potentilla norvegica ssp. monspeliensis	rough cinquefoil	forb	
POTE PAR	Potentilla paradoxa	bushy cinquefoil	forb	
POTE PEN	Potentilla pensylvanica	Pennsylvania cinquefoil	forb	
POTE PEN GLA	Potentilla pensylvanica var. glabrata	glabrate cinquefoil	forb	
POTE PEN PEN	Potentilla pensylvanica var. pensylvanica	Pennsylvania cinquefoil	forb	
POTE PLA	Potentilla plattensis	low cinquefoil	forb	
POTE REC	Potentilla recta	upright cinquefoil	forb	
POTE RIV	Potentilla rivalis	brook cinquefoil	forb	
POTE SPP	Potentilla spp.	cinquefoil (genus)	forb	
POTT BRY	Pottia bryoides		bryophyte	
POTT NEV	Pottia nevadensis		bryophyte	
POTT SPP	Pottia spp.		bryophyte	
POTT TRU	Pottia truncata		bryophyte	
PREN ALB	Prenanthes alba	white-lettuce	forb	

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PREN RAC	Prenanthes racemosa	glaucous white-lettuce	forb	
PREN RAC RAC	Prenanthes racemosa ssp. racemosa	glaucous white-lettuce	forb	
PREN SPP	Prenanthes spp.	white-lettuce (genus)	forb	
PRHS CIN	Pyrrhospora cinnabarina	northern crimson dot lichen	lichen	
PRIM INC	Primula incana	mealy primrose	forb	
PRIM MIS	Primula mistassinica	dwarf Canadian primrose	forb	
PRIM SPP	Primula spp.	primrose (genus)	forb	
PRNE VUL	Prunella vulgaris	common selfheal	forb	
PRNE VUL LAN	Prunella vulgaris ssp. lanceolata	common selfheal	forb	
PROB LOU	Proboscidea louisianica	devil's-claw	forb	
PROB LOU LOU	Proboscidea louisianica ssp. louisianica	devil's-claw	forb	
PROS TRA	Prosartes trachycarpum	fairy bells	forb	
PROT BAD	Protoparmelia badia	chocolate rim-lichen	lichen	
PRTS AMA	Pertusaria amara	bitter wart lichen	lichen	
PRUN AME	Prunus americana	American wild plum	erect shrub	
PRUN PEN	Prunus pensylvanica	pin cherry	erect shrub	
PRUN PUM	Prunus pumila	sand cherry	erect shrub	
PRUN PUM BES	Prunus pumila var. besseyi	sand cherry	erect shrub	
PRUN SPP	Prunus spp.	cherry (genus)	erect shrub	
PRUN TOM	Prunus tomentosa	Nanking cherry	erect shrub	
PRUN VIR	Prunus virginiana	choke cherry	erect shrub	
PRUN VIR VIR	Prunus virginiana var. virginiana	choke cherry	erect shrub	
PSAT JUN	Psathyrostachys juncea	Russian wild-rye	graminoid	
PSDB CIN	Pseudobryum cinclidioides		bryophyte	
PSDC TUR	Pseudocalliergon turgescens		bryophyte	
PSDL TEC	Pseudoleskeella tectorum		bryophyte	
PSDP MIN	Pseudephebe minuscula	coarse rockwool	lichen	
PSDP PUB	Pseudephebe pubescens	fine rockwool	lichen	
PSDP SPP	Pseudephebe spp.		lichen	
PSEU SPI	Pseudoroegneria spicata	bluebunch wheat-grass	graminoid	
PSEU SPI SPI	Pseudoroegneria spicata ssp. spicata	bluebunch wheat-grass	graminoid	
PSIL BRE	Psilocarphus brevissimus	dwarf woollyheads	forb	
PSIL BRE BRE	Psilocarphus brevissimus var. brevissimus	dwarf woollyheads	forb	
PSLC LUC	Psilolechia lucida	sulphur dust lichen	lichen	
PSOR LAN	Psoralidium lanceolatum	lance-leaved psoralea	forb	
PSRA CER	Psora cerebriformis	brain scale	lichen	
PSRA DEC	Psora decipiens	blushing scale	lichen	
PSRA HIM	Psora himalayana	mountain scale	lichen	
PSRA RUB	Psora rubiformis	scale lichen	lichen	
PSRA RUS	Psora russellii	scale lichen	lichen	
PSRA SPP	Psora spp.		lichen	
PSRA TUC	Psora tuckermanii	brown-eyed scale	lichen	
PSRL RUF	Psorula rufonigra	blue-edged scale lichen	lichen	
PSRL SCO	Psorula scotopholis	scale lichen	lichen	
PSRL SPP	Psorula spp.		lichen	
PSRM HYP	Psoroma hypnorum	green moss-shingle	lichen	
PSRT NIG	Psorotichia nigra		lichen	
PTER AND	Pterospora andromedea	woodland pinedrops	forb	
PTGD FIL	Pterigynandrum filiforme		bryophyte	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
PTGR KOZ	Pterygoneurum kozlovii	alkaline wing-nerved moss	bryophyte	
PTGR OVA	Pterygoneurum ovatum		bryophyte	
PTGR SPP	Pterygoneurum spp.		bryophyte	
PTGR SUB	Pterygoneurum subsessile		bryophyte	
PTIL CRI	Ptilium crista-castrensis	knight's plume	bryophyte	
PUCC DIS	Puccinellia distans	spreading alkali-grass	graminoid	
PUCC DIS DIS	Puccinellia distans ssp. distans	spreading alkali-grass	graminoid	
PUCC HAU	Puccinellia hauptiana	Haupt's alkali-grass	graminoid	
PUCC INT	Puccinellia interior	inland alkali grass	graminoid	
PUCC LEM	Puccinellia lemmonii	lemmon's alkali-grass	graminoid	
PUCC NUT	Puccinellia nuttalliana	Nuttall's alkali-grass	graminoid	
PUCC SPP	Puccinellia spp.	alkali-grass (genus)	graminoid	
PULS PAT	Pulsatilla patens	prairie crocus	forb	
PULS PAT MUL	Pulsatilla patens ssp. multifida	prairie crocus	forb	
PUNC RUD	Punctelia rudecta	rough speckled shield lichen	lichen	
PUNC SPP	Punctelia spp.		lichen	
PUNC SUB	Punctelia subrudecta	powdered speckled shield lichen	lichen	
PYLA POL	Pylaisiella polyantha	aspen moss	bryophyte	
PYRE OCT	Pyrenidium octosporum		lichen	
PYRO ASA	Pyrola asarifolia	pink wintergreen	forb	
PYRO ASA ASA	Pyrola asarifolia ssp. asarifolia	pink wintergreen	forb	
PYRO CHL	Pyrola chlorantha	greenish-flowered wintergreen	forb	
PYRO ELL	Pyrola elliptica	shinleaf	forb	
PYRO GRA	Pyrola grandiflora	large-flowered wintergreen	forb	
PYRO MIN	Pyrola minor	lesser wintergreen	forb	
PYRO SPP	Pyrola spp.	wintergreen (genus)	forb	
PYRR LAN	Pyrrocoma lanceolata	lance-leaf goldenweed	forb	
PYRR LAN LAN	Pyrrocoma lanceolata var. lanceolata	lance-leaf goldenweed	forb	
QUER MAC	Quercus macrocarpa	bur oak	tree	bO
QUER MAC MAC	Quercus macrocarpa var. macrocarpa	bur oak	tree	
RAMA AME	Ramalina americana	sinewed ramalina	lichen	
RAMA CAL	Ramalina calicaris	ramalina	lichen	
RAMA DIL	Ramalina dilacerata	punctured ramalina	lichen	
RAMA FAR	Ramalina farinacea	dotted ramalina	lichen	
RAMA FAS	Ramalina fastigiata	ramalina	lichen	
RAMA FRA	Ramalina fraxinea	ramalina	lichen	
RAMA INT	Ramalina intermedia	rock ramalina	lichen	
RAMA OBT	Ramalina obtusata	hooded ramalina	lichen	
RAMA PLP	Ramalina polymorpha	ramalina	lichen	
RAMA PLR	Ramalina pollinaria	chalky ramalina	lichen	
RAMA SIN	Ramalina sinensis	fan ramalina	lichen	
RAMA SPP	Ramalina spp.		lichen	
RANU ABO	Ranunculus abortivus	small-flowered buttercup	forb	
RANU ACR	Ranunculus acris	tall buttercup	forb	
RANU ACR ACR	Ranunculus acris var. acris	tall buttercup	forb	
RANU AQU	Ranunculus aquatilis	white water buttercup	forb	
RANU AQU DIF	Ranunculus aquatilis var. diffusa	white water buttercup	forb	
RANU CAR	Ranunculus cardiophyllus	heart-leaved buttercup	forb	
RANU CYM	Ranunculus cymbalaria	shore buttercup	forb	

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RANU FLA	Ranunculus flammula	creeping buttercup	forb	
RANU FLA OVA	Ranunculus flammula var. ovalis	creeping buttercup	forb	
RANU FLA REP	Ranunculus flammula var. reptans	creeping buttercup	forb	
RANU GLA	Ranunculus glaberrimus	shiny-leaved buttercup	forb	
RANU GLA ELL	Ranunculus glaberrimus var. ellipticus	shiny-leaved buttercup	forb	
RANU GME	Ranunculus gmelinii	small yellow water buttercup	forb	
RANU HYP	Ranunculus hyperboreus	boreal buttercup	forb	
RANU HYP HYP	Ranunculus hyperboreus var. hyperboreus	boreal buttercup	forb	
RANU INA	Ranunculus inamoenus	graceful buttercup	forb	
RANU INA INA	Ranunculus inamoenus var. inamoenus	graceful buttercup	forb	
RANU LAP	Ranunculus lapponicus	Lapland buttercup	forb	
RANU MAC	Ranunculus macounii	Macoun’s buttercup	forb	
RANU PED	Ranunculus pedatifidus	northern buttercup	forb	
RANU PED AFF	Ranunculus pedatifidus var. affinis	northern buttercup	forb	
RANU PEN	Ranunculus pensylvanicus	Pennsylvania buttercup	forb	
RANU RHO	Ranunculus rhomboideus	prairie buttercup	forb	
RANU SCE	Ranunculus sceleratus	celery-leaved buttercup	forb	
RANU SCE MUL	Ranunculus sceleratus var. multifidus	celery-leaved buttercup	forb	
RANU SCE SCE	Ranunculus sceleratus var. sceleratus	celery-leaved buttercup	forb	
RANU SPP	Ranunculus spp.	buttercup (genus)	forb	
RANU TES	Ranunculus testiculata	curved-seed buttercup	forb	
RAPH RAP	Raphanus raphanistrum	wild radish	forb	
RAPH RAP RAP	Raphanus raphanistrum ssp. raphanistrum	wild radish	forb	
RAPH SAT	Raphanus sativus	garden radish	forb	
RAPH SPP	Raphanus spp.	radish (genus)	forb	
RAPI PER	Rapistrum perenne	steppe-cabbage	forb	
RATI COL	Ratibida columnifera	prairie coneflower	forb	
RESE ALB	Reseda alba	white cut-leaved mignonette	forb	
RESE LUT	Reseda lutea	yellow cut-leaved mignonette	forb	
RESE SPP	Reseda spp.	mignonette (genus)	forb	
RHAM ALN	Rhamnus alnifolia	alder-leaved buckthorn	erect shrub	
RHAM CAT	Rhamnus cathartica	European buckthorn	erect shrub	
RHAM SPP	Rhamnus spp.	buckthorn (genus)	erect shrub	
RHEU RHA	Rheum rhabarbarum	rhubarb	forb	
RHIN MIN	Rhinanthus minor	yellow-rattle	forb	
RHIN MIN MIN	Rhinanthus minor ssp. minor	yellow-rattle	forb	
RHIZ BAD	Rhizocarpon badioatrum	map lichen	lichen	
RHIZ CIN	Rhizocarpon cinereovirens	map lichen	lichen	
RHIZ CON	Rhizocarpon concentricum	map lichen	lichen	
RHIZ COO	Rhizocarpon cookeanum	map lichen	lichen	
RHIZ COP	Rhizocarpon copelandii	map lichen	lichen	
RHIZ DIS	Rhizocarpon disporum	single-spored map lichen	lichen	
RHIZ EUP	Rhizocarpon eupetraeum	map lichen	lichen	
RHIZ GEM	Rhizocarpon geminatum	map lichen	lichen	
RHIZ GEO	Rhizocarpon geographicum	yellow map lichen	lichen	
RHIZ GRA	Rhizocarpon grande	map lichen	lichen	
RHIZ HOC	Rhizocarpon hochstetteri	smooth map lichen	lichen	
RHIZ LIN	Rhizocarpon lindsayanum	Lindsay's map lichen	lichen	
RHIZ NOR	Rhizocarpon norvegicum	Norwegian map lichen	lichen	

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RHIZ OBS	Rhizocarpon obscuratum	dusky map lichen	lichen	
RHIZ RIP	Rhizocarpon riparium	map lichen	lichen	
RHIZ SPP	Rhizocarpon spp.		lichen	
RHIZ SUP	Rhizocarpon superficiale	map lichen	lichen	
RHUS GLA	Rhus glabra	smooth sumac	erect shrub	
RHUS SPP	Rhus spp.	sumac (genus)	erect shrub	
RHUS TRI	Rhus trilobata	skunk-bush	erect shrub	
RHUS TRI TRI	Rhus trilobata var. trilobata	skunk-bush	erect shrub	
RHYN ALB	Rhynchospora alba	white beaked-rush	graminoid	
RHYN CAP	Rhynchospora capillacea	hair-like beaked-rush	graminoid	
RHYN FUS	Rhynchospora fusca	brown beaked-rush	graminoid	
RHYN SPP	Rhynchospora spp.	beaked-rush (genus)	graminoid	
RHYT TRI	Rhytidiadelphus triquetrus	goose neck moss	bryophyte	
RHZM GRA	Rhizomnium gracile	slender round moss	bryophyte	
RHZM MAG	Rhizomnium magnifolium		bryophyte	
RHZM PSE	Rhizomnium pseudopunctatum	felt round moss	bryophyte	
RHZM PUN	Rhizomnium punctatum		bryophyte	
RHZM SPP	Rhizomnium spp.		bryophyte	
RHZP CHR	Rhizoplaca chrysoleuca	orange rock-posy	lichen	
RHZP MEL	Rhizoplaca melanophthalma	green rock-posy	lichen	
RHZP PEL	Rhizoplaca peltata	brown rock-posy	lichen	
RHZP SPP	Rhizoplaca spp.		lichen	
RHZP SUB	Rhizoplaca subdiscrepans	scattered rock-posy	lichen	
RIBE AME	Ribes americanum	wild black currant	erect shrub	
RIBE AUR	Ribes aureum	golden currant	erect shrub	
RIBE AUR AUR	Ribes aureum var. aureum	golden currant	erect shrub	
RIBE AUR VIL	Ribes aureum var. villosum	golden currant	erect shrub	
RIBE GLA	Ribes glandulosum	skunk currant	erect shrub	
RIBE HIR	Ribes hirtellum	hairy-stem gooseberry	erect shrub	
RIBE HUD	Ribes hudsonianum	northern black currant	erect shrub	
RIBE HUD HUD	Ribes hudsonianum var. hudsonianum	northern black currant	erect shrub	
RIBE LAC	Ribes lacustre	bristly black currant	erect shrub	
RIBE OXY	Ribes oxyacanthoides	northern gooseberry	erect shrub	
RIBE OXY OXY	Ribes oxyacanthoides var. oxyacanthoides	northern gooseberry	erect shrub	
RIBE OXY SET	Ribes oxyacanthoides var. setosum	bristly gooseberry	erect shrub	
RIBE SPP	Ribes spp.	gooseberry or currant (genus)	erect shrub	
RIBE TRI	Ribes triste	swamp red currant	erect shrub	
RINO ARC	Rinodina archaea	pepper-spore lichen	lichen	
RINO COL	Rinodina colobina	pepper-spore lichen	lichen	
RINO EXI	Rinodina exigua	pepper-spore lichen	lichen	
RINO LEC	Rinodina lecideoides	pepper-spore lichen	lichen	
RINO MET	Rinodina metaboliza	pepper-spore lichen	lichen	
RINO MNI	Rinodina mniaraea	pepper-spore lichen	lichen	
RINO MUC	Rinodina mucronatula	pepper-spore lichen	lichen	
RINO POP	Rinodina populicola	poplar pepper-spore lichen	lichen	
RINO PYR	Rinodina pyrina	pepper-spore lichen	lichen	
RINO SPP	Rinodina spp.		lichen	
RINO TER	Rinodina terrestris		lichen	
RINO TUR	Rinodina turfacea	tundra pepper-spore lichen	lichen	

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RORI AUS	Rorippa austriaca	Austrian cress	forb	
RORI CUR	Rorippa curvipes	curved yellow-cress	forb	
RORI CUR CUR	Rorippa curvipes var. curvipes	curved yellow-cress	forb	
RORI CUR TRU	Rorippa curvipes var. truncata	blunt-leaved yellow-cress	forb	
RORI PAL	Rorippa palustris	marsh yellow-cress	forb	
RORI PAL FER	Rorippa palustris ssp. fernaldiana	marsh yellow-cress	forb	
RORI PAL HIS	Rorippa palustris ssp. hispida	hairy marsh yellow-cress	forb	
RORI PAL PAL	Rorippa palustris ssp. palustris	marsh yellow-cress	forb	
RORI SIN	Rorippa sinuata	spreading yellow-cress	forb	
RORI SPP	Rorippa spp.	yellow-cress (genus)	forb	
RORI SYL	Rorippa sylvestris	creeping yellow-cress	forb	
RORI TEN	Rorippa tenerrima	slender yellow-cress	forb	
ROSA ACI	Rosa acicularis	prickly rose	erect shrub	
ROSA ARK	Rosa arkansana	prairie rose	erect shrub	
ROSA ARK ARK	Rosa arkansana var. arkansana	prairie rose	erect shrub	
ROSA ARK SUF	Rosa arkansana var. suffulta	prairie rose	erect shrub	
ROSA BLA	Rosa blanda	smooth wild rose	erect shrub	
ROSA BLA BLA	Rosa blanda var. blanda	smooth wild rose	erect shrub	
ROSA SPP	Rosa spp.	rose (genus)	erect shrub	
ROSA WOO	Rosa woodsii	Wood’s rose	erect shrub	
ROSA WOO WOO	Rosa woodsii var. woodsii	Wood’s rose	erect shrub	
RTDM RUG	Rhytidium rugosum	pipecleaner moss	bryophyte	
RUBU ARC	Rubus arcticus	stemless raspberry	forb	
RUBU ARC ACA	Rubus arcticus ssp. acaulis	stemless raspberry	forb	
RUBU CHA	Rubus chamaemorus	cloudberry	forb	
RUBU IDA	Rubus idaeus	wild red raspberry	erect shrub	
RUBU IDA STR	Rubus idaeus ssp. strigosus	wild red raspberry	erect shrub	
RUBU PUB	Rubus pubescens	dewberry	forb	
RUBU PUB PUB	Rubus pubescens var. pubescens	dewberry	forb	
RUBU SPP	Rubus spp.	raspberry (genus)	forb	
RUDB HIR	Rudbeckia hirta	black-eyed susan	forb	
RUDB HIR PUL	Rudbeckia hirta var. pulcherimma	black-eyed susan	forb	
RUDB LAC	Rudbeckia laciniata	tall coneflower	forb	
RUDB LAC LAC	Rudbeckia laciniata var. laciniata	tall coneflower	forb	
RUDB SPP	Rudbeckia spp.	coneflower (genus)	forb	
RUME ACE	Rumex acetosella	sheep sorrel	forb	
RUME ACT	Rumex acetosa	sour dock	forb	
RUME BRI	Rumex britannica	water dock	forb	
RUME CON	Rumex confertus	asiatic dock	forb	
RUME CRI	Rumex crispus	curled dock	forb	
RUME FUE	Rumex fueginus	golden dock	forb	
RUME LON	Rumex longifolius	long-leaved dock	forb	
RUME OCC	Rumex occidentalis	western dock	forb	
RUME PSE	Rumex pseudonatronatus	field dock	forb	
RUME SPP	Rumex spp.	dock (genus)	forb	
RUME STE	Rumex stenophyllus	narrow-leaved field dock	forb	
RUME TRI	Rumex triangulivalvis	narrow-leaved dock	forb	
RUME VEN	Rumex venosus	sand dock	forb	
RUPP CIR	Ruppia cirrhosa	western widgeon-grass	forb	

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RUPP MAR	Ruppia maritima	beaked widgeon-grass	forb	
RUPP MAR ROS	Ruppia maritima var. rostrata	beaked widgeon-grass	forb	
RUPP SPP	Ruppia spp.	widgeon-grass (genus)	forb	
SAGI DEC	Sagina decumbens	spreading pearlwort	forb	
SAGI DEC DEC	Sagina decumbens ssp. decumbens	spreading pearlwort	forb	
SAGI NOD	Sagina nodosa	northern knotted pearlwort	forb	
SAGI NOD BOR	Sagina nodosa ssp. borealis	northern knotted pearlwort	forb	
SAGI SPP	Sagina spp.	pearlwort (genus)	forb	
SAGT BRE	Sagittaria brevirostra	short-beaked arrowhead	forb	
SAGT CUN	Sagittaria cuneata	arum-leaved arrowhead	forb	
SAGT LAT	Sagittaria latifolia	broad-leaved arrowhead	forb	
SAGT RIG	Sagittaria rigida	sessile-fruited arrowhead	forb	
SAGT SPP	Sagittaria spp.	arrowhead (genus)	forb	
SALI RUB	Salicornia rubra	glasswort	forb	
SALS COL	Salsola collina	slender Russian-thistle	forb	
SALS SPP	Salsola spp.	Russian-thistle (genus)	forb	
SALS TRA	Salsola tragus	prickly Russian-thistle	forb	
SALV REF	Salvia reflexa	lance-leaved sage	forb	
SALX ALB	Salix alba	white willow	erect shrub	
SALX AMY	Salix amygdaloides	peach-leaved willow	tree	
SALX ARB	Salix arbusculoides	shrubby willow	erect shrub	
SALX ARC	Salix arctophila	northern willow	prostrate shrub	
SALX ATH	Salix athabascensis	Athabasca willow	erect shrub	
SALX BEB	Salix bebbiana	beaked willow	erect shrub	
SALX BRA	Salix brachycarpa	small-fruited willow	erect shrub	
SALX BRA BRA	Salix brachycarpa var. brachycarpa	small-fruited willow	erect shrub	
SALX BRA PSA	Salix brachycarpa var. psammophila	sand-dune small-fruited willow	erect shrub	
SALX CAN	Salix candida	hoary willow	erect shrub	
SALX DIS	Salix discolor	pussy willow	erect shrub	
SALX DRU	Salix drummondiana	Drummond's willow	erect shrub	
SALX FAM	Salix famelica	yellow willow	erect shrub	
SALX GLA	Salix glauca	gray-leaved willow	erect shrub	
SALX GLA GLA	Salix glauca ssp. glabrescens	gray-leaved willow	erect shrub	
SALX HUM	Salix humilis	prairie willow	erect shrub	
SALX INT	Salix interior	sandbar willow	erect shrub	
SALX LAS	Salix lasiandra	western shining willow	erect shrub	
SALX LAS CAU	Salix lasiandra var. caudata	western shining willow	erect shrub	
SALX LAS LAS	Salix lasiandra var. lasiandra	western shining willow	erect shrub	
SALX LUC	Salix lucida	shining willow	erect shrub	
SALX LUC LUC	Salix lucida ssp. lucida	shining willow	erect shrub	
SALX MAC	Salix maccalliana	velvet-fruited willow	erect shrub	
SALX MYR	Salix myrtillifolia	myrtle-leaved willow	erect shrub	
SALX PED	Salix pedicellaris	bog willow	erect shrub	
SALX PEL	Salix pellita	satiny willow	erect shrub	
SALX PEN	Salix pentandra	bay-leaf willow	erect shrub	
SALX PET	Salix petiolaris	basket willow	erect shrub	
SALX PLA	Salix planifolia	plane-leaf willow	erect shrub	
SALX PSE	Salix pseudomyrsinites	firm-leaf willow	erect shrub	
SALX PSM	Salix pseudomonticola	false mountain willow	erect shrub	

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SALX PYR	Salix pyrifolia	balsam willow	erect shrub	
SALX RET	Salix reticulata	net-leaf willow	erect shrub	
SALX SCO	Salix scouleriana	Scouler's willow	erect shrub	
SALX SER	Salix serissima	autumn willow	erect shrub	
SALX SIL	Salix silicicola	sand felt-leaf willow	erect shrub	
SALX SPP	Salix spp.	willow (genus)	erect shrub	
SALX TUR	Salix turnorii	Turnor's willow	erect shrub	
SALX TYR	Salix tyrrellii	Tyrrell's willow	erect shrub	
SAMB RAC	Sambucus racemosa	red-berried elder	erect shrub	
SAMB RAC RAC	Sambucus racemosa var. racemosa	red-berried elder	erect shrub	
SAMO FLO	Samolus floribundus	water pimpernel	forb	
SANI MAR	Sanicula marilandica	black snakeroot	forb	
SAPO OFF	Saponaria officinalis	bouncing-bet	forb	
SARC VER	Sarcobatus vermiculatus	black greaswood	forb	
SARR PUR	Sarracenia purpurea	purple pitcher-plant	forb	
SARR PUR GIB	Sarracenia purpurea ssp. gibbosa	purple pitcher-plant	forb	
SAXI TRI	Saxifraga tricuspidata	three-toothed saxifrage	forb	
SCAN PEC	Scandix pecten-veneris	shepherd's-needle	forb	
SCHA FUS	Schaereria fuscocinerea	false map lichen	lichen	
SCHE PAN	Schedonnardus paniculatus	prairie tumble-grass	graminoid	
SCHI PUR	Schizachne purpurascens	false melic grass	graminoid	
SCHO ACU	Schoenoplectus acutus	hardstem bulrush	graminoid	
SCHO ACU ACU	Schoenoplectus acutus var. acutus	hardstem bulrush	graminoid	
SCHO PUN	Schoenoplectus pungens	three-square bulrush	graminoid	
SCHO SPP	Schoenoplectus spp.	bulrush (Schoenoplectus genus)	graminoid	
SCHO SUB	Schoenoplectus subterminalis	subterminal bulrush	graminoid	
SCHO TAB	Schoenoplectus tabernaemontani	soft-stem bulrush	graminoid	
SCHR PRA	Schedonorus pratense	meadow fescue	graminoid	
SCHT APO	Schistidium apocarpum		bryophyte	
SCHT RIV	Schistidium rivulare		bryophyte	
SCHT SPP	Schistidium spp.		bryophyte	
SCHU PAL	Scheuchzeria palustris	American scheuchzeria	forb	
SCHU PAL AME	Scheuchzeria palustris ssp. americana	American scheuchzeria	forb	
SCHY SCO	Schizachyrium scoparium	little bluestem	graminoid	
SCHY SCO SCO	Schizachyrium scoparium ssp. scoparium	little bluestem	graminoid	
SCIR ATR	Scirpus atrocinctus	woolgrass	graminoid	
SCIR MIC	Scirpus microcarpus	small-fruited bulrush	graminoid	
SCIR NEV	Scirpus nevadensis	Nevada bulrush	graminoid	
SCIR PAL	Scirpus pallidus	pale bulrush	graminoid	
SCIR SPP	Scirpus spp.	bulrush (Scirpus genus)	graminoid	
SCLE ANN	Scleranthus annuus	annual knawel	forb	
SCLP CHL	Scoliciosporum chlorococcum	city dot lichen	lichen	
SCOL FES	Scolochloa festucacea	spangletop	graminoid	
SCOR SCO	Scorpidium scorpioides	scorpion feather moss	bryophyte	
SCRO LAN	Scrophularia lanceolata	lance-leaved figwort	forb	
SCUT GAL	Scutellaria galericulata	marsh skullcap	forb	
SCUT GAL EPI	Scutellaria galericulata ssp. epilobiifolia	marsh skullcap	forb	
SCUT LAT	Scutellaria lateriflora	blue skullcap	forb	
SCUT LAT LAT	Scutellaria lateriflora var. lateriflora	blue skullcap	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
SCUT SPP	Scutellaria spp.	skullcap (genus)	forb	
SECA CER	Secale cereale	cultivated rye	graminoid	
SECU VAR	Securigera varia	purple crown-vetch	forb	
SEDU ACR	Sedum acre	mossy stonecrop	forb	
SEDU AIZ	Sedum aizoon	aizoon stonecrop	forb	
SEDU LAN	Sedum lanceolatum	lance-leaved stonecrop	forb	
SEDU LAN LAN	Sedum lanceolatum ssp. lanceolatum	lance-leaved stonecrop	forb	
SEDU SPP	Sedum spp.	stonecrop (genus)	forb	
SELA DEN	Selaginella densa	prairie clubmoss	forb	
SELA DEN DEN	Selaginella densa var. densa	prairie clubmoss	forb	
SELA RUP	Selaginella rupestris	rock spike-moss	forb	
SELA SEL	Selaginella selaginoides	prickly spike-moss	forb	
SELA SPP	Selaginella spp.	spike-moss (genus)	forb	
SENE ERE	Senecio eremophilus	cut-leaved ragwort	forb	
SENE ERE ERE	Senecio eremophilus var. eremophilus	cut-leaved ragwort	forb	
SENE INT	Senecio integerrimus	entire-leaved groundsel	forb	
SENE INT EXA	Senecio integerrimus var. exaltatus	entire-leaved groundsel	forb	
SENE INT INT	Senecio integerrimus var. integerrimus	entire-leaved groundsel	forb	
SENE INT SCR	Senecio integerrimus var. scribneri	Scribner's groundsel	forb	
SENE SPP	Senecio spp.	groundsel (Senecio genus)	forb	
SENE VIS	Senecio viscosus	sticky groundsel	forb	
SENE VUL	Senecio vulgaris	common groundsel	forb	
SETA PUM	Setaria pumila	yellow foxtail	graminoid	
SETA PUM PUM	Setaria pumila ssp. pumila	yellow foxtail	graminoid	
SETA SPP	Setaria spp.	foxtail (genus)	graminoid	
SETA VIR	Setaria viridis	green foxtail	graminoid	
SETA VIR VIR	Setaria viridis var. viridis	green foxtail	graminoid	
SHEP ARG	Shepherdia argentea	thorny buffalo-berry	erect shrub	
SHEP CAN	Shepherdia canadensis	Canada buffalo-berry	erect shrub	
SHEP SPP	Shepherdia spp.	buffalo-berry (genus)	erect shrub	
SHIN ROS	Shinnersoseris rostrata	beaked annual skeleton-weed	forb	
SIBB TRI	Sibbaldiopsis tridentata	three-toothed cinquefoil	forb	
SILE ACA	Silene acaulis	moss campion	forb	
SILE ACA EXS	Silene acaulis var. exscapa	moss campion	forb	
SILE ANT	Silene antirrhina	sleepy catchfly	forb	
SILE CHA	Silene chalcedonica	Maltese-cross	forb	
SILE CON	Silene conoidea	conoid catchfly	forb	
SILE CSE	Silene csereii	smooth catchfly	forb	
SILE DIC	Silene dichotoma	forked catchfly	forb	
SILE DRU	Silene drummondii	Drummond's catchfly	forb	
SILE DRU DRU	Silene drummondii var. drummondii	Drummond's catchfly	forb	
SILE LAT	Silene latifolia	white catchfly	forb	
SILE LAT ALB	Silene latifolia ssp. alba	white catchfly	forb	
SILE MEN	Silene menziesii	Menzies' catchfly	forb	
SILE MEN MEN	Silene menziesii ssp. menziesii	Menzies' catchfly	forb	
SILE NOC	Silene noctiflora	night-flowering catchfly	forb	
SILE SIB	Silene sibirica	Siberian campion	forb	
SILE SPP	Silene spp.	catchfly (genus)	forb	
SILE VUL	Silene vulgaris	bladder campion	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
SILY MAR	Silybum marianum	blessed milk-thistle	forb	
SINA ALB	Sinapis alba	white mustard	forb	
SINA ALB ALB	Sinapis alba ssp. alba	white mustard	forb	
SINA ARV	Sinapis arvensis	charlock	forb	
SINA SPP	Sinapis spp.	mustard (Sinapis genus)	forb	
SISY ALT	Sisymbrium altissimum	tumble mustard	forb	
SISY LOE	Sisymbrium loeselii	tall hedge-mustard	forb	
SISY SPP	Sisymbrium spp.	mustard (Sisymbrium genus)	forb	
SIUM SUA	Sium suave	water-parsnip	forb	
SIYR MON	Sisyrinchium montanum	mountain blue-eyed-grass	forb	
SIYR MUC	Sisyrinchium mucronatum	mucronate blue-eyed-grass	forb	
SIYR SEP	Sisyrinchium septentrionale	northern blue-eyed-grass	forb	
SIYR SPP	Sisyrinchium spp.	blue-eyed-grass (genus)	forb	
SMIL LAS	Smilax lasioneuron	hairy-nerved carrion-flower	forb	
SNNA UNC	Sanionia uncinata		bryophyte	
SOLA DUL	Solanum dulcamara	bittersweet	forb	
SOLA DUL DUL	Solanum dulcamara var. dulcamara	bittersweet	forb	
SOLA INT	Solanum interius	deadly black nightshade	forb	
SOLA LYC	Solanum lycopersicum	garden tomato	forb	
SOLA PHY	Solanum physalifolium	viscid nightshade	forb	
SOLA PTY	Solanum ptychanthum	American black nightshade	forb	
SOLA ROS	Solanum rostratum	buffalo-bur	forb	
SOLA SPP	Solanum spp.	nightshade (genus)	forb	
SOLA TRI	Solanum triflorum	wild tomato	forb	
SOLA TUB	Solanum tuberosum	potato	forb	
SOLI ALT	Solidago altissima	tall goldenrod	forb	
SOLI ALT ALT	Solidago altissima ssp. altissima	tall goldenrod	forb	
SOLI ALT GIL	Solidago altissima ssp. gilvocanescens	canescent goldenrod	forb	
SOLI CAN	Solidago canadensis	Canada goldenrod	forb	
SOLI CAN HAR	Solidago canadensis var. hargeri	Canada goldenrod	forb	
SOLI GIG	Solidago gigantea	late goldenrod	forb	
SOLI GIG SER	Solidago gigantea ssp. serotina	late goldenrod	forb	
SOLI HIS	Solidago hispida	hairy goldenrod	forb	
SOLI LEP	Solidago lepida	western Canada goldenrod	forb	
SOLI LEP LEP	Solidago lepida var. lepida	western Canada goldenrod	forb	
SOLI LEP SAL	Solidago lepida var. salebrosa	graceful goldenrod	forb	
SOLI MIS	Solidago missouriensis	Missouri goldenrod	forb	
SOLI MOL	Solidago mollis	velvety goldenrod	forb	
SOLI MUL	Solidago multiradiata	northern goldenrod	forb	
SOLI NEM	Solidago nemoralis	showy goldenrod	forb	
SOLI NEM DEC	Solidago nemoralis ssp. decemflora	showy goldenrod	forb	
SOLI PTA	Solidago ptarmicoides	upland white aster	forb	
SOLI RIG	Solidago rigida	stiff-leaved goldenrod	forb	
SOLI RIG HUM	Solidago rigida ssp. humilis	stiff-leaved goldenrod	forb	
SOLI SIM	Solidago simplex	mountain goldenrod	forb	
SOLI SIM SIM	Solidago simplex var. simplex	mountain goldenrod	forb	
SOLI SPP	Solidago spp.	goldenrod (genus)	forb	
SOLO BIS	Solorina bispora	chocolate chip lichen	lichen	
SOLO CRO	Solorina crocea	orange chocolate chip lichen	lichen	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
SOLO SAC	Solorina saccata	common chocolate chip lichen	lichen	
SOLO SPP	Solorina spp.		lichen	
SONC ARV	Sonchus arvensis	perennial sow-thistle	forb	
SONC ARV ARV	Sonchus arvensis ssp. arvensis	perennial sow-thistle	forb	
SONC ARV ULI	Sonchus arvensis ssp. uliginosus	perennial sow-thistle	forb	
SONC ASP	Sonchus asper	spiny-leaved annual sow-thistle	forb	
SONC ASP ASP	Sonchus asper ssp. asper	spiny-leaved annual sow-thistle	forb	
SONC OLE	Sonchus oleraceus	common annual sow-thistle	forb	
SONC SPP	Sonchus spp.	sow-thistle (genus)	forb	
SORB SOR	Sorbaria sorbifolia	ash-leaved spiraea	erect shrub	
SORG NUT	Sorghastrum nutans	yellow Indian grass	graminoid	
SPAR ANG	Sparganium angustifolium	narrow-leaved bur-reed	graminoid	
SPAR CHL	Sparganium chlorocarpum	green-fruited bur-reed	graminoid	
SPAR EME	Sparganium emersum	broad-leaved bur-reed	graminoid	
SPAR EUR	Sparganium eurycarpum	giant bur-reed	graminoid	
SPAR FLU	Sparganium fluctuans	floating bur-reed	graminoid	
SPAR GLO	Sparganium glomeratum	clustered bur-reed	graminoid	
SPAR HYP	Sparganium hyperboreum	northern bur-reed	graminoid	
SPAR NAT	Sparganium natans	small bur-reed	graminoid	
SPAR SPP	Sparganium spp.	bur-reed (genus)	graminoid	
SPER ARV	Spergula arvense	corn-spurry	forb	
SPER ARV ARV	Spergula arvense var. arvense	corn-spurry	forb	
SPHA COC	Sphaeralcea coccinea	scarlet mallow	forb	
SPHA COC COC	Sphaeralcea coccinea ssp. coccinea	scarlet mallow	forb	
SPHE INT	Sphenopholis intermedia	slender wedge-grass	graminoid	
SPHE OBT	Sphenopholis obtusata	prairie wedge-grass	graminoid	
SPHE SPP	Sphenopholis spp.	wedge-grass (genus)	graminoid	
SPHG ANG	Sphagnum angustifolium	poor fen peat moss	bryophyte	
SPHG ANN	Sphagnum annulatum		bryophyte	
SPHG BAL	Sphagnum balticum		bryophyte	
SPHG CAP	Sphagnum capillifolium	acute-leaved peat moss	bryophyte	
SPHG CEN	Sphagnum centrale		bryophyte	
SPHG COM	Sphagnum compactum		bryophyte	
SPHG FAL	Sphagnum fallax		bryophyte	
SPHG FUS	Sphagnum fuscum	rusty peat moss	bryophyte	
SPHG GIR	Sphagnum girgensohnii	Girgensohn's peat moss	bryophyte	
SPHG JEN	Sphagnum jensenii	pendant branch peat moss	bryophyte	
SPHG LIN	Sphagnum lindbergii	Lindberg's peat moss	bryophyte	
SPHG MAG	Sphagnum magellanicum	midway peat moss	bryophyte	
SPHG MAJ	Sphagnum majus	greater peat moss	bryophyte	
SPHG OBT	Sphagnum obtusum		bryophyte	
SPHG PLA	Sphagnum platyphyllum		bryophyte	
SPHG RIP	Sphagnum riparium	shore-growing peat moss	bryophyte	
SPHG RUS	Sphagnum russowii	wide-tongued peat moss	bryophyte	
SPHG SPP	Sphagnum spp.		bryophyte	
SPHG SQU	Sphagnum squarrosum	squarrose peat moss	bryophyte	
SPHG TER	Sphagnum teres	thin-leafed peat moss	bryophyte	
SPHG WAR	Sphagnum warnstorfii	Warnstorf's peat moss	bryophyte	
SPHG WUL	Sphagnum wulfianum		bryophyte	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
SPHO SAL	Sphaerophysa salsula	globe-pea	forb	
SPHP FRA	Sphaerophorus fragilis	fragile coral lichen	lichen	
SPID POL	Spirodela polyrrhiza	common duck's-meat	forb	
SPIL REV	Spilonema revertens	rock hairball lichen	lichen	
SPIR ALB	Spiraea alba	narrow-leaved meadowsweet	erect shrub	
SPIR ALB ALB	Spiraea alba var. alba	narrow-leaved meadowsweet	erect shrub	
SPIR BET	Spiraea betulifolia	shiny-leaved meadowsweet	erect shrub	
SPIR BET LUC	Spiraea betulifolia var. lucida	shiny-leaved meadowsweet	erect shrub	
SPIR SPP	Spiraea spp.	meadowsweet (genus)	erect shrub	
SPLA AMP	Splachnum ampullaceum		bryophyte	
SPLA LUT	Splachnum luteum	yellow collar moss	bryophyte	
SPLA RUB	Splachnum rubrum	red collar moss	bryophyte	
SPLA SPP	Splachnum spp.		bryophyte	
SPOR COM	Sporobolus compositus	rough dropseed	graminoid	
SPOR CRY	Sporobolus cryptandrus	sand dropseed	graminoid	
SPOR HET	Sporobolus heterolepis	prairie dropseed	graminoid	
SPOR NEG	Sporobolus neglectus	small dropseed	graminoid	
SPOR SPP	Sporobolus spp.	dropseed (genus)	graminoid	
SPRA LAC	Spiranthes lacera	northern slender ladies'-tresses	forb	
SPRA ROM	Spiranthes romanzoffiana	hooded ladies'-tresses	forb	
SPRA SPP	Spiranthes spp.	ladies'-tresses (genus)	forb	
SPRG CAN	Spergularia canadensis	western Canada sand-spurry	forb	
SPRG CAN OCC	Spergularia canadensis var. occidentalis	western Canada sand-spurry	forb	
SPRG DIA	Spergularia diandra	alkali sand-spurry	forb	
SPRG SAL	Spergularia salina	salt-marsh sand-spurry	forb	
SPRG SPP	Spergularia spp.	sand-spurry (genus)	forb	
SPRT GRA	Spartina gracilis	alkali cord-grass	graminoid	
SPRT PEC	Spartina pectinata	prairie cord-grass	graminoid	
SPRT SPP	Spartina spp.	cord-grass (genus)	graminoid	
SPRT TES	Sporastatia testudinea	copper patch lichen	lichen	
SQUA CAR	Squamarina cartilaginea	rim lichen	lichen	
SQUA LEN	Squamarina lentigera	white-rim lichen	lichen	
SQUA SPP	Squamarina spp.		lichen	
SRBS AUC	Sorbus aucuparia	European mountain-ash	erect shrub	
SRBS DEC	Sorbus decora	showy mountain-ash	erect shrub	
SRBS SCO	Sorbus scopulina	western mountain-ash	erect shrub	
SRBS SCO SCO	Sorbus scopulina var. scopulina	western mountain-ash	erect shrub	
SRBS SPP	Sorbus spp.	mountain-ash (genus)	erect shrub	
SRGN CLA	Sarcogyne clavus	grain-spored lichen	lichen	
SRGN REG	Sarcogyne regularis	frosted grain-spored lichen	lichen	
SRGN SPP	Sarcogyne spp.		lichen	
STAC PIL	Stachys pilosa	hairy hedge-nettle	forb	
STAC PIL PIL	Stachys pilosa var. pilosa	hairy hedge-nettle	forb	
STAU ARE	Staurothele areolata	rock pimples	lichen	
STAU FIS	Staurothele fissa	lakezone lichen	lichen	
STAU SES	Staurothele sessilis	rock pimple	lichen	
STAU SPP	Staurothele spp.		lichen	
STEL ARE	Stellaria arenicola	sand stitchwort	forb	
STEL BOR	Stellaria borealis	boreal stitchwort	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
STEL CRA	Stellaria crassifolia	fleshy stitchwort	forb	
STEL CRA CRA	Stellaria crassifolia var. crassifolia	fleshy stitchwort	forb	
STEL GRA	Stellaria graminea	grass-leaved stitchwort	forb	
STEL GRA GRA	Stellaria graminea var. graminea	grass-leaved stitchwort	forb	
STEL LNG	Stellaria longipes	long-stalked stitchwort	forb	
STEL LON	Stellaria longifolia	long-leaved stitchwort	forb	
STEL LON LON	Stellaria longifolia var. longifolia	long-leaved stitchwort	forb	
STEL MED	Stellaria media	common chickweed	forb	
STEL MED MED	Stellaria media ssp. media	common chickweed	forb	
STEL SPP	Stellaria spp.	stitchwort (genus)	forb	
STEN ARM	Stenotus armeroides	thrifty goldenweed	forb	
STEN ARM ARM	Stenotus armeroides var. armerioides	thrifty goldenweed	forb	
STEP RUN	Stephanomeria runcinata	runcinate-leaved rush-pink	forb	
STEP SPP	Stephanomeria spp.	rush-pink (genus)	forb	
STEP TEN	Stephanomeria tenuifolia	narrow-leaved rush-pink	forb	
STER ALP	Stereocaulon alpinum	foam lichen	lichen	
STER CON	Stereocaulon condensatum	foam lichen	lichen	
STER DAC	Stereocaulon dactylophyllum	finger-scale foam lichen	lichen	
STER GLA	Stereocaulon glareosum	foam lichen	lichen	
STER GRA	Stereocaulon grande	grand foam lichen	lichen	
STER PAS	Stereocaulon paschale	easter lichen	lichen	
STER RIV	Stereocaulon rivulorum	snow foam lichen	lichen	
STER SAX	Stereocaulon saxatile	rock foam lichen	lichen	
STER SPP	Stereocaulon spp.		lichen	
STER TOM	Stereocaulon tomentosum	wooly foam lichen	lichen	
STNT OCC	Stenanthium occidentale	western featherbells	forb	
STRA MIC	Strangospora microhaema		lichen	
STRA MOR	Strangospora moriformis	strangospora lichen	lichen	
STRA SPP	Strangospora spp.		lichen	
STRE AMP	Streptopus amplexifolius	clasping-leaf twisted-stalk	forb	
STUC FIL	Stuckenia filiformis	threadleaved pondweed	forb	
STUC FIL ALP	Stuckenia filiformis ssp. alpinus	threadleaved pondweed	forb	
STUC FIL OCC	Stuckenia filiformis ssp. occidentalis	threadleaved pondweed	forb	
STUC PEC	Stuckenia pectinata	sago pondweed	forb	
STUC SPP	Stuckenia spp.	pondweed (Stuckenia genus)	forb	
STUC VAG	Stuckenia vaginata	large-sheathed pondweed	forb	
SUAE CAL	Suaeda calceoliformis	western sea-blite	forb	
SUAE NIG	Suaeda nigra	bush seepweed	forb	
SUAE SPP	Suaeda spp.	sea-blite (genus)	forb	
SUBU AQU	Subularia aquatica	American water awlwort	forb	
SUBU AQU AME	Subularia aquatica ssp. americana	American water awlwort	forb	
SUCK SUC	Suckleya suckleyana	poison suckleya	forb	
SYMH ASP	Symphytum asperum	prickly comfrey	forb	
SYMH OFF	Symphytum officinale	common comfrey	forb	
SYMH SPP	Symphytum spp.	comfrey (genus)	forb	
SYMP ALB	Symphoricarpos albus	northern snowberry	erect shrub	
SYMP ALB ALB	Symphoricarpos albus var. albus	northern snowberry	erect shrub	
SYMP OCC	Symphoricarpos occidentalis	western snowberry	erect shrub	
SYMP SPP	Symphoricarpos spp.	snowberry (genus)	erect shrub	

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SYMY BOR	Symphyotrichum boreale	rush aster	forb	
SYMY CIL	Symphyotrichum ciliolatum	Lindley's blue aster	forb	
SYMY CLT	Symphyotrichum ciliatum	rayless aster	forb	
SYMY EAT	Symphyotrichum eatonii	Eaton's aster	forb	
SYMY ERI	Symphyotrichum ericoides	tufted white prairie aster	forb	
SYMY ERI PAN	Symphyotrichum ericoides var. pansum	tufted white prairie aster	forb	
SYMY FAL	Symphyotrichum falcatum	creeping white prairie aster	forb	
SYMY FAL COM	Symphyotrichum falcatum var. commutatum	creeping white prairie aster	forb	
SYMY FAL FAL	Symphyotrichum falcatum var. falcatum	white prairie aster	forb	
SYMY LAE	Symphyotrichum laeve	smooth blue aster	forb	
SYMY LAE GEY	Symphyotrichum laeve var. geyeri	smooth blue aster	forb	
SYMY LAN	Symphyotrichum lanceolatum	willow aster	forb	
SYMY LAN HES	Symphyotrichum lanceolatum var. hesperium	western willow aster	forb	
SYMY LAN LAN	Symphyotrichum lanceolatum var. lanceolatum	eastern willow aster	forb	
SYMY PUN	Symphyotrichum puniceum	purple-stemmed aster	forb	
SYMY PUN PUN	Symphyotrichum puniceum var. puniceum	purple-stemmed aster	forb	
SYMY SPP	Symphyotrichum spp.	aster (Symphyotrichum genus)	forb	
SYRI JOS	Syringa josikaea	Hungarian lilac	erect shrub	
SYRI SPP	Syringa spp.	lilac (genus)	erect shrub	
SYRI VUL	Syringa vulgaris	common lilac	erect shrub	
TANA BAL	Tanacetum balsamita	costmary	forb	
TANA HUR	Tanacetum huronense	Lake Huron tansy	forb	
TANA HUR BIF	Tanacetum huronense var. bifarium	Lake Huron tansy	forb	
TANA HUR FLO	Tanacetum huronense var. floccosum	floccose tansy	forb	
TANA SPP	Tanacetum spp.	tansy (genus)	forb	
TANA VUL	Tanacetum vulgare	common tansy	forb	
TARA CER	Taraxacum ceratophorum	horned dandelion	forb	
TARA ERY	Taraxacum erythrospermum	red-seeded dandelion	forb	
TARA OFF	Taraxacum officinale	common dandelion	forb	
TARA SPP	Taraxacum spp.	dandelion (genus)	forb	
TAXI DEP	Taxiphyllum deplanatum		bryophyte	
TAYL LIN	Tayloria lingulata		bryophyte	
TEPH PAL	Tephroseris palustris	marsh ragwort	forb	
TETR ACA	Tetraneuris acaulis	stemless rubberweed	forb	
TETR ACA ACA	Tetraneuris acaulis var. acaulis	stemless rubberweed	forb	
TEUC CAN	Teucrium canadense	hairy germander	forb	
TEUC CAN OCC	Teucrium canadense var. occidentale	hairy germander	forb	
THAL DAS	Thalictrum dasycarpum	tall meadow-rue	forb	
THAL OCC	Thalictrum occidentale	western meadow-rue	forb	
THAL SPA	Thalictrum sparsiflorum	few-flowered meadow-rue	forb	
THAL SPA RIC	Thalictrum sparsiflorum var. richardsonii	few-flowered meadow-rue	forb	
THAL SPP	Thalictrum spp.	meadow-rue (genus)	forb	
THAL VEN	Thalictrum venulosum	veiny meadow-rue	forb	
THEL SAL	Thellungiella salsuginea	mouse-ear cress	forb	
THER RHO	Thermopsis rhombifolia	golden bean	forb	
THIN INT	Thinopyrum intermedium	intermediate wheat-grass	graminoid	
THIN PON	Thinopyrum ponticum	tall wheat-grass	graminoid	
THIN SPP	Thinopyrum spp.	wheat-grass (Thinopyrum genus)	graminoid	
THLA ARV	Thlaspi arvense	field pennycress	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
THLP PAL	Thelypteris palustris	eastern marsh fern	forb	
THLP PAL PUB	Thelypteris palustris var. pubescens	eastern marsh fern	forb	
THUI REC	Thuidium recognitum	hook-leaf fern moss	bryophyte	
TILI AME	Tilia americana	American basswood	tree	
TILI AME AME	Tilia americana var. americana	American basswood	tree	
TIMM AUS	Timmia austriaca		bryophyte	
TOFI PUS	Tofieldia pusilla	small false-asphodel	forb	
TONI SED	Toninia sedifolia	earth-wrinkles	lichen	
TONI SPP	Toninia spp.		lichen	
TONI TRI	Toninia tristis	pitted blister lichen	lichen	
TORR PAL	Torreyochloa pallida	pale false manna-grass	graminoid	
TORR PAL FER	Torreyochloa pallida var. fernaldii	pale false manna-grass	graminoid	
TORT FRA	Tortella fragilis	fragile screw moss	bryophyte	
TORT SPP	Tortella spp.		bryophyte	
TORT TOR	Tortella tortuosa	twisted moss	bryophyte	
TOWN EXS	Townsendia exscapa	stemless townsendia	forb	
TOWN HOO	Townsendia hookeri	Hooker's townsendia	forb	
TOWN PAR	Townsendia parryi	Parry’s townsendia	forb	
TOWN SPP	Townsendia spp.	townsendia (genus)	forb	
TOXI RYD	Toxicodendron rydbergii	poison-ivy	forb	
TRAD OCC	Tradescantia occidentalis	western spiderwort	forb	
TRAD OCC OCC	Tradescantia occidentalis var. occidentalis	western spiderwort	forb	
TRAG DUB	Tragopogon dubius	yellow goat's-beard	forb	
TRAG PRA	Tragopogon pratensis	meadow goat’s-beard	forb	
TRAG SPP	Tragopogon spp.	goat's-beard (genus)	forb	
TRAN BUR	Transberingia bursifolia	slender mouse-eared cress	forb	
TRAN BUR VIR	Transberingia bursifolia ssp. virgata	slender mouse-eared cress	forb	
TRAP FLE	Trapeliopsis flexuosa	board lichen	lichen	
TRAP GRA	Trapeliopsis granulosa	mottled-disk lichen	lichen	
TRAP SPP	Trapeliopsis spp.		lichen	
TREM ATR	Tremolecia atrata	rusty-rock lichen	lichen	
TRGO CAE	Trigonella caerulea	sweet-trefoil	forb	
TRIA FRA	Triadenum fraseri	Fraser’s marsh St. John’s-wort	forb	
TRIC ALP	Trichophorum alpinum	alpine cottongrass	graminoid	
TRIC CES	Trichophorum cespitosum	tufted bulrush	graminoid	
TRIC CLI	Trichophorum clintonii	Clinton’s bulrush	graminoid	
TRIC PUM	Trichophorum pumilum	dwarf bulrush	graminoid	
TRIC PUM ROL	Trichophorum pumilum ssp. rollandii	dwarf bulrush	graminoid	
TRIC SPP	Trichophorum spp.	bulrush (Trichophorum genus)	graminoid	
TRIE BOR	Trientalis borealis	northern star-flower	forb	
TRIE BOR BOR	Trientalis borealis ssp. borealis	northern star-flower	forb	
TRIE EUR	Trientalis europaea	arctic starflower	forb	
TRIE EUR ARC	Trientalis europaea ssp. arctica	arctic starflower	forb	
TRIE SPP	Trientalis spp.	starflower (genus)	forb	
TRIF AUR	Trifolium aureum	yellow clover	forb	
TRIF HYB	Trifolium hybridum	alsike clover	forb	
TRIF PRA	Trifolium pratense	red clover	forb	
TRIF REP	Trifolium repens	white clover	forb	
TRIF REP REP	Trifolium repens var. repens	white clover	forb	

Short_Desc	Long_Desc	Common_Name	Growth_Form	Tree_Code
TRIF SPP	Trifolium spp.	clover (genus)	forb	
TRIG MAR	Triglochin maritimum	seaside arrow-grass	forb	
TRIG PAL	Triglochin palustre	marsh arrow-grass	forb	
TRIG SPP	Triglochin spp.	arrow-grass (genus)	forb	
TRIL CER	Trillium cernuum	nodding trillium	forb	
TRIN GLU	Triantha glutinosa	sticky false-asphodel	forb	
TRIN GLU GLU	Triantha glutinosa ssp. glutinosa	sticky false-asphodel	forb	
TRIP INO	Tripleurospermum inodorum	scentless chamomile	forb	
TRIS SPI	Trisetum spicatum	spike trisetum	graminoid	
TRIS SPP	Trisetum spp.	trisetum (genus)	graminoid	
TRIS WOL	Trisetum wolfii	awnless trisetum	graminoid	
TRIT AES	Triticum aestivum	wheat	graminoid	
TRIT SPP	Triticum spp.	wheat (genus)	graminoid	
TRIT TUR	Triticum turgidum	durum wheat	graminoid	
TRIX MIC	Tripterocalyx micranthus	sandpuffs	forb	
TRTU MUC	Tortula mucronifolia		bryophyte	
TRTU RUR	Tortula ruralis	hairy screw moss	bryophyte	
TRTU SPP	Tortula spp.		bryophyte	
TTPH PEL	Tetraphis pellucida	common four-tooth moss	bryophyte	
TTPL ANG	Tetraplodon angustatus	narrow-leaved splachnum	bryophyte	
TTPL MNI	Tetraplodon mnioides	brown tapering splachnum	bryophyte	
TTPL SPP	Tetraplodon spp.		bryophyte	
TUCK AME	Tuckermannopsis americana	fringed wrinkle-lichen	lichen	
TURR GLA	Turritis glabra	tower mustard	forb	
TYPH ANG	Typha angustifolia	narrow-leaved cat-tail	graminoid	
TYPH LAT	Typha latifolia	common cat-tail	graminoid	
TYPH SPP	Typha spp.	cat-tail (genus)	graminoid	
ULMU AME	Ulmus americana	American elm	tree	wE
ULMU PUM	Ulmus pumila	Siberian elm	erect shrub	
ULMU SPP	Ulmus spp.	elm (genus)	erect shrub	
ULOT CRI	Ulota crispa		bryophyte	
ULOT CUR	Ulota curvifolia		bryophyte	
ULOT SPP	Ulota spp.		bryophyte	
UMBI AME	Umbilicaria americana	frosted rock tripe	lichen	
UMBI DEU	Umbilicaria deusta	peppered rock tripe	lichen	
UMBI HYP	Umbilicaria hyperborea	blistered rock tripe	lichen	
UMBI MAM	Umbilicaria mammulata	smooth rock tripe	lichen	
UMBI MUE	Umbilicaria muehlenbergii	plated rock tripe	lichen	
UMBI SPP	Umbilicaria spp.		lichen	
UMBI TOR	Umbilicaria torrefacta	punctured rock tripe	lichen	
UMBI VEL	Umbilicaria vellea	rock tripe	lichen	
UMBI VIR	Umbilicaria virginis	blushing rock tripe	lichen	
UNKN FRB	UNKNOWN FORB	unknown forb	forb	
UNKN GRA	UNKNOWN GRAMINOID	unknown graminoid	graminoid	
URTI DIO	Urtica dioica	stinging nettle	forb	
URTI DIO GRA	Urtica dioica ssp. gracilis	stinging nettle	forb	
URTI SPP	Urtica spp.	nettle (genus)	forb	
URTI URE	Urtica urens	burning nettle	forb	
USNE ALP	Usnea alpina	beard lichen	lichen	

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USNE CAV	Usnea cavernosa	pitted beard lichen	lichen	
USNE CER	Usnea ceratina	warty beard lichen	lichen	
USNE FIL	Usnea filipendula	fishbone beard lichen	lichen	
USNE FUL	Usnea fulvoreagens	beard lichen	lichen	
USNE GBS	Usnea glabrescens	beard lichen	lichen	
USNE GBT	Usnea glabrata	lustrous beard lichen	lichen	
USNE HIR	Usnea hirta	bristly beard lichen	lichen	
USNE LAP	Usnea lapponica	powdered beard lichen	lichen	
USNE SBF	Usnea subfloridana	beard lichen	lichen	
USNE SBS	Usnea substerilis	beard lichen	lichen	
USNE SBT	Usnea scabrata	straw beard lichen	lichen	
USNE SCA	Usnea scabiosa	beard lichen	lichen	
USNE SPP	Usnea spp.		lichen	
UTRI COR	Utricularia cornuta	horned bladderwort	forb	
UTRI INT	Utricularia intermedia	flat-leaf bladderwort	forb	
UTRI MAC	Utricularia macrorhiza	greater bladderwort	forb	
UTRI MIN	Utricularia minor	lesser bladderwort	forb	
UTRI SPP	Utricularia spp.	bladderwort (genus)	forb	
VACC CES	Vaccinium cespitosum	dwarf bilberry	erect shrub	
VACC CES CES	Vaccinium cespitosum var. cespitosum	dwarf bilberry	erect shrub	
VACC MYR	Vaccinium myrtilloides	velvet-leaf blueberry	erect shrub	
VACC OXY	Vaccinium oxycoccos	small bog cranberry	prostrate shrub	
VACC SPP	Vaccinium spp.	blueberry or cranberry (genus)	erect shrub	
VACC ULI	Vaccinium uliginosum	bog blueberry	erect shrub	
VACC VIT	Vaccinium vitis-idaea	dry-ground cranberry	prostrate shrub	
VACC VIT MIN	Vaccinium vitis-idaea ssp. minus	dry-ground cranberry	prostrate shrub	
VACR HIS	Vaccaria hispanica	cowcockle	forb	
VALE DIO	Valeriana dioica	northern valerian	forb	
VALE DIO SYL	Valeriana dioica ssp. sylvatica	northern valerian	forb	
VERB NIG	Verbascum nigrum	black mullein	forb	
VERB PHL	Verbascum phlomoides	woolly mullein	forb	
VERB SPP	Verbascum spp.	mullein (genus)	forb	
VERB THA	Verbascum thapsus	common mullein	forb	
VERN FAS	Vernonia fasciculata	prairie ironweed	forb	
VERO AME	Veronica americana	American speedwell	forb	
VERO ANA	Veronica anagallis-aquatica	brook-pimpernel	forb	
VERO AUS	Veronica austriaca	broad-leaved speedwell	forb	
VERO AUS TEU	Veronica austriaca ssp. teucrium	broad-leaved speedwell	forb	
VERO LON	Veronica longifolia	long-leaved speedwell	forb	
VERO PER	Veronica peregrina	hairy speedwell	forb	
VERO PER XAL	Veronica peregrina ssp. xalapensis	hairy speedwell	forb	
VERO PRS	Veronica persica	Persian speedwell	forb	
VERO SCU	Veronica scutellata	marsh speedwell	forb	
VERO SER	Veronica serpyllifolia	thyme-leaved speedwell	forb	
VERO SER HUM	Veronica serpyllifolia ssp. humifusa	thyme-leaved speedwell	forb	
VERO SPP	Veronica spp.	speedwell (genus)	forb	
VERR FUS	Verrucaria fuscella	speck lichen	lichen	
VERR GLA	Verrucaria glaucovirens	speck lichen	lichen	
VERR LEC	Verrucaria lecideoides	speck lichen	lichen	

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VERR MAR	Verrucaria margacea	speck lichen	lichen	
VERR MUR	Verrucaria muralis	speck lichen	lichen	
VERR NIG	Verrucaria nigrescens	speck lichen	lichen	
VERR RUP	Verrucaria rupestris	speck lichen	lichen	
VERR SPP	Verrucaria spp.		lichen	
VERR VIR	Verrucaria viridula	speck lichen	lichen	
VIBU EDU	Viburnum edule	low bush-cranberry	erect shrub	
VIBU LEN	Viburnum lentago	nanny-berry	erect shrub	
VIBU OPU	Viburnum opulus	high bush-cranberry	erect shrub	
VIBU OPU AME	Viburnum opulus var. americanum	high bush-cranberry	erect shrub	
VIBU SPP	Viburnum spp.	bush-cranberry (genus)	erect shrub	
VICI AME	Vicia americana	American vetch	forb	
VICI AME AME	Vicia americana ssp. americana	American vetch	forb	
VICI AME MIN	Vicia americana ssp. minor	narrow-leaved American vetch	forb	
VICI CRA	Vicia cracca	tufted vetch	forb	
VICI CRA CRA	Vicia cracca ssp. cracca	tufted vetch	forb	
VICI SPP	Vicia spp.	vetch (genus)	forb	
VIOL ADU	Viola adunca	early blue violet	forb	
VIOL ADU ADU	Viola adunca var. adunca	early blue violet	forb	
VIOL ARV	Viola arvensis	European field pansy	forb	
VIOL BIC	Viola bicolor	field pansy	forb	
VIOL BLA	Viola blanda	large-leaved violet	forb	
VIOL BLA PAL	Viola blanda var. palustriformis	large-leaved violet	forb	
VIOL CAN	Viola canadensis	western Canada violet	forb	
VIOL CAN RUG	Viola canadensis var. rugulosa	western Canada violet	forb	
VIOL EPI	Viola epipsila	dwarf marsh violet	forb	
VIOL EPI REP	Viola epipsila ssp. repens	dwarf marsh violet	forb	
VIOL LAB	Viola labradorica	alpine violet	forb	
VIOL MAC	Viola macloskeyi	smooth white violet	forb	
VIOL MAC PAL	Viola macloskeyi ssp. pallens	smooth white violet	forb	
VIOL NEP	Viola nephrophylla	northern bog violet	forb	
VIOL NUT	Viola nuttallii	Nuttall's yellow violet	forb	
VIOL PAL	Viola palustris	marsh violet	forb	
VIOL PAL BRE	Viola palustris var. brevipes	white marsh violet	forb	
VIOL PAL PAL	Viola palustris var. palustris	marsh violet	forb	
VIOL PED	Viola pedatifida	crowfoot violet	forb	
VIOL PUB	Viola pubescens	downy yellow violet	forb	
VIOL PUB SCA	Viola pubescens var. scabriuscula	downy yellow violet	forb	
VIOL REN	Viola renifolia	kidney-leaved white violet	forb	
VIOL SEL	Viola selkirkii	Selkirk's violet	forb	
VIOL SEP	Viola septentrionalis	northern blue violet	forb	
VIOL SOR	Viola sororia	downy blue violet	forb	
VIOL SPP	Viola spp.	violet (genus)	forb	
VIOL TRI	Viola tricolor	pansy	forb	
VIOL VAL	Viola vallicola	yellow prairie violet	forb	
VIOL VAL MAJ	Viola vallicola var. major	yellow prairie violet	forb	
VIOL VAL VAL	Viola vallicola var. vallicola	yellow prairie violet	forb	
VITI RIP	Vitis riparia	riverbank grape	erect shrub	
VLPC CAN	Vulpicida canadensis	brown-eyed sunshine lichen	lichen	

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VLPC PIN	Vulpicida pinastri	powdered sunshine lichen	lichen	
VLPC SPP	Vulpicida spp.		lichen	
VRBE BRA	Verbena bracteata	bracted vervain	forb	
VRBE HAS	Verbena hastata	blue vervain	forb	
VRBE HAS HAS	Verbena hastata var. hastata	blue vervain	forb	
VRBE SPP	Verbena spp.	vervain (genus)	forb	
VRBE URT	Verbena urticifolia	nettle-leaved vervain	forb	
VRBE URT URT	Verbena urticifolia var. urticifolia	nettle-leaved vervain	forb	
VULP OCT	Vulpia octoflora	six-weeks fescue	graminoid	
WARN EXA	Warnstorfia exannulata		bryophyte	
WARN FLU	Warnstorfia fluitans		bryophyte	
WARN SPP	Warnstorfia spp.		bryophyte	
WEIS CON	Weissia controversa		bryophyte	
WOLF COL	Wolffia columbiana	Columbian wolffia	forb	
WOOD ALP	Woodsia alpina	alpine woodsia	forb	
WOOD GLA	Woodsia glabella	smooth woodsia	forb	
WOOD ILV	Woodsia ilvensis	rusty woodsia	forb	
WOOD INC	WOODY INCREASERS	woody increasers	erect shrub	
WOOD ORE	Woodsia oregana	Oregon woodsia	forb	
WOOD ORE CAT	Woodsia oregana ssp. cathcartiana	Oregon woodsia	forb	
WOOD ORE ORE	Woodsia oregana ssp. oregana	Oregon woodsia	forb	
WOOD SCO	Woodsia scopulina	Rocky Mountain woodsia	forb	
WOOD SCO SCO	Woodsia scopulina ssp. scopulina	Rocky Mountain woodsia	forb	
WOOD SPP	Woodsia spp.	woodsia (genus)	forb	
XANT GRI	Xanthisma grindelioides	toothed ironplant	forb	
XANT GRI GRI	Xanthisma grindelioides var. grindelioides	toothed ironplant	forb	
XANT SPI	Xanthisma spinulosum	spiny ironplant	forb	
XANT SPI SPI	Xanthisma spinulosum var. spinulosum	spiny ironplant	forb	
XANT SPP	Xanthisma spp.	ironplant (genus)	forb	
XATH SPI	Xanthium spinosum	spiny cocklebur	forb	
XATH SPP	Xanthium spp.	cocklebur (genus)	forb	
XATH STR	Xanthium strumarium	cocklebur	forb	
XTHA CAN	Xanthoria candelaria	shrubby sunburst lichen	lichen	
XTHA ELE	Xanthoria elegans	elegant sunburst lichen	lichen	
XTHA FAL	Xanthoria fallax	hooded sunburst lichen	lichen	
XTHA HAS	Xanthoria hasseana	poplar sunburst lichen	lichen	
XTHA POL	Xanthoria polycarpa	pin-cushion sunburst lichen	lichen	
XTHA SOR	Xanthoria sorediata	sugared sunburst lichen	lichen	
XTHA SPP	Xanthoria spp.		lichen	
XTHP CHL	Xanthoparmelia chlorochroa	tumbleweed shield lichen	lichen	
XTHP COL	Xanthoparmelia coloradoensis		lichen	
XTHP CON	Xanthoparmelia conspersa	peppered rock-shield	lichen	
XTHP CUM	Xanthoparmelia cumberlandia	Cumberland rock-shield	lichen	
XTHP LIN	Xanthoparmelia lineola	tight rock-shield	lichen	
XTHP MEX	Xanthoparmelia mexicana	salted rock-shield	lichen	
XTHP NEO	Xanthoparmelia neochlorochroa		lichen	
XTHP NOR	Xanthoparmelia norchlorochroa		lichen	
XTHP PLI	Xanthoparmelia plittii	Plitt's rock-shield	lichen	
XTHP SOM	Xanthoparmelia somloensis	shingled rock-shield	lichen	

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XTHP SPP	Xanthoparmelia spp.		lichen	
XTHP TAS	Xanthoparmelia tasmanica	rock-shield lichen	lichen	
XTHP WYO	Xanthoparmelia wyomingica	shingled rock-shield	lichen	
XYLO PAR	Xylographa parallela	black woodscript	lichen	
YUCC GLA	Yucca glauca	smooth soapweed	forb	
ZANN PAL	Zannichellia palustris	horned-pondweed	forb	
ZIZA PAL	Zizania palustris	wild-rice	graminoid	
ZIZA PAL INT	Zizania palustris var. interior	wild-rice	graminoid	
ZIZA PAL PAL	Zizania palustris var. palustris	wild-rice	graminoid	
ZIZI APT	Zizia aptera	heart-leaved alexanders	forb	
ZIZI SPP	Zizia spp.	alexanders (genus)	forb	
ZYGA ELE	Zygadenus elegans	white camas	forb	
ZYGA ELE ELE	Zygadenus elegans ssp. elegans	white camas	forb	
ZYGA SPP	Zygadenus spp.	camas (genus)	forb	
ZYGA VEN	Zygadenus venenosus	grass-leaved death camas	forb	
ZYGA VEN GRA	Zygadenus venenosus var. gramineus	grass-leaved death camas	forb	