



United States Department of Agriculture
US Forest Service
Natural Resource Manager (NRM)



FSVeg Common Stand Exam User Guide Chapter 1: Overview

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INTRODUCTION

This guide describes the sampling design methodology and field data collection techniques for the Common Stand Examination (CSE) protocols. The guide includes information on loading the data into the Field Sampled Vegetation (FSVeg) database and accessing the data to produce a variety of reports.

A stand is a polygon defined by local delineation criteria. It is spatially locatable on the ground. Within a stand, one or more points are established around which tree data, vegetation composition, ground surface cover, and down woody material can be collected.

Although this guide is oriented toward collecting information on stands that contain trees, the CSE protocols may be used to collect information on stands that do not contain trees.

The CSE protocols provide maximum flexibility for collecting data to meet a variety of information needs about a stand or area, including the ability to use a multitude of sampling criteria to collect data.

PURPOSE AND NEED

The purpose of the Common Stand Exam (CSE) is to establish a nationally consistent protocol for acquiring terrestrial vegetation information necessary to meet site-specific analysis needs. It provides the procedures for describing vegetation composition, structure, and productivity in an ecological framework. This system will be responsive to the changing needs of the various resources.

The objective of this data is to develop site-specific resource estimates to assess vegetation and site attributes. The system and associated database are designed to develop site-specific resource plans at varying levels of data intensities and measurement resolutions.

The data is not intended for aggregation beyond the specifically sampled site. The limitations of “aggregation” involve concerns about data currency, quality assurance, plot selection, measurement protocol, plot design, cost, and statistical implications involving stand selection.

REGIONAL POLICY, DIRECTION, AND SILVICULTURAL PRESCRIPTIONS

The WO handbook FSH 2409.17 “Silvicultural Practices Handbook” and each Region’s supplements to this handbook provide the policy and direction for use of the procedures outlined in this user guide. The handbook and supplements also define how collected information is used to make diagnoses, determine stand treatment needs, and develop detailed silvicultural prescriptions.

NATURAL RESOURCE INFORMATION SYSTEM

The Forest Service Natural Resource Information System (NRIS) is a set of corporate databases and computer applications designed to support users at all levels within the Forest Service. NRIS databases contain basic natural resource data in standard formats built to run within the Forest Service computing environment. This system provides employees, partners, and the public with access to essential natural resource data needed to support the management decisions that form the core business of the Forest Service.

NRIS provides the Forest Service with the resource information environment needed to respond to public concerns and address complex issues. NRIS focuses on the biological, physical, and human features that make up National Forest and Grassland landscapes. It provides a diverse range of basic and calculated information in standard formats that can be shared across administrative and ecological boundaries. NRIS improves decisions by providing advanced applications and tools to manage and analyze geographic information consistently throughout the Agency. Users can aggregate data across Forests and Regions, apply the best science to management decisions, develop consistent interpretations, and use advanced analytical models.

NRIS provides enhanced functionality and information outputs with standard data structures, consistent methods, and secure data storage. Where appropriate, NRIS uses existing data maintained by other agencies and cooperators, especially when those data represent widely accepted standards.

WHAT IS FSVEG?

The Field Sampled Vegetation (FSVeg) module contains data that has been collected in the “field.” FSVeg contains plot vegetation data from field surveys such as FIA data, stand exams, inventories, and regeneration surveys. It includes data on trees, surface cover, understory vegetation, and down woody material. Almost any type or variety of field sampled vegetation data can be stored in FSVeg.

FSVeg data is stored in an Oracle relational database. Data includes stand exams, grid inventories, pest surveys, research studies, and FIA data.

MORE THAN JUST TREES

FSVeg contains information about trees, surface cover, down woody material, and vegetative composition.

ROLES

Table 1: Roles and data access

Role / Description	View Data	Insert Data	Edit Data	Delete Data	Sys Admin	Create Summary
NRV_Summary: Users with this role have all the capabilities of those with the Wizard role. In addition, they have access to running the special summary programs to populate the permanent and summary data storage table.	X	X	X	X	X	X
NRV Wizard: Users with this role may view, edit, insert, or delete data, and manage the system administration tables. Complete plots and/or settings may be deleted at one time.	X	X	X	Setting Plot Record	X	n/a
NRV Data Collector: Users with this role may view the data, insert new data into the database, and edit existing data. Down woody, ground surface cover, vegetation composition, and sample design records may be deleted, one record at a time.	X	X	X	Record	n/a	n/a

Role / Description	View Data	Insert Data	Edit Data	Delete Data	Sys Admin	Create Summary
Public: Users with the public role may only view the data, they cannot update or alter existing data or insert new data.	X	n/a	n/a	n/a	n/a	n/a

DOCUMENTATION

CSE User Guide: Contains detailed instructions on how to collect Common Stand Exam (CSE) data, load it into the FS Veg database, and obtain reports. It also contains instructions on using the Portable Data Recorder (PDR) software and on navigating the FS Veg Oracle forms.

Regional Appendices: Contain the data codes specific to each Region.

Regional Field Guides: The CSE User Guide and Regional Appendices are combined, simplified, and reformatted to a pocket size. The Field Guides only contain the information necessary for collecting data while in the field. The format contains four pages on one double-sided piece of paper. This format is economical when photocopying on write-in-the-rain paper.

Data Dictionary: Contains information about the FS Veg database table structure and detailed information about every column in every table in the database. It also contains a complete set of data reference tables that include the National set of data codes. In addition, it contains information about tables necessary for the Oracle forms and reports to operate correctly.

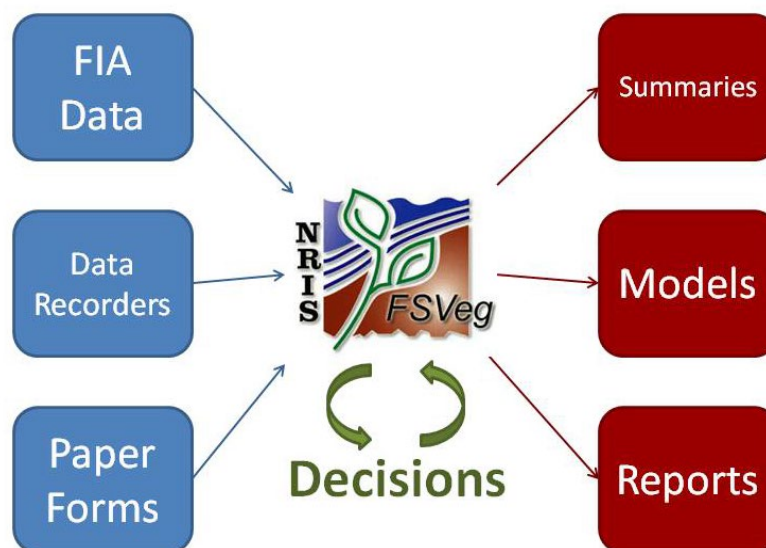
Insect and Disease Manual: Contains information about each insect and disease listed in the appendix. The information includes pictures of the insect or disease, species primary and secondary host, geographic range, description, and symptoms.

All documents are written in MS Word and stored on the FS Veg web site. Documents may be retrieved, stored locally, and modified to fit local needs.

All documentation can be obtained from:
<http://fsweb.nris.fs.fed.us/products/FSVeg/documentation.shtml>

INPUT AND OUTPUT

Figure 1: FSVeg Input-Output



FIA Data: Move a copy of FIA data into FSVeg.

Data Recorders: Programs to facilitate data collection with portable data recorders (PDR). These programs assist in collecting, error checking, and loading data into FSVeg.

Paper Forms: Oracle forms are available to load data recorded on paper forms into FSVeg.

Summaries: Data for specified areas can be summarized according to user defined summary requests. The summaries can include CSE data, photo interpreted data, or any other data stored in FSVeg.

Models: Data can be extracted from FSVeg and reformatted for use with the Forest Vegetation Simulator (FVS).

Reports: A range of reporting capabilities exists on all data stored in FSVeg. Many of the reports can be exported to MS Excel.

COMMON STAND EXAM

The Common Stand Exam (CSE) protocols provide national guidance for collecting stand examination data. CSE provides one set of national data collection protocols, data codes, portable data recorder software, forms, reports, and export programs. All stand examination data is stored in a common database structure, FSVeg. Data from multiple Districts, Forests, Regions, and participating Agencies can be analyzed with ease. The CSE protocols are used to collect stand, plot, tree, surface cover, vegetation, and down woody data. This data is stored in FSVeg along with strategic grid data, insect and disease study data, FIA, and re-measured growth plot data.

DATA RECORDER SOFTWARE

A stand examination data entry program is available for Portable Data Recorders (PDR) with a Windows CE operating system. After the data is collected in the field, it is transferred to the FSVeg database. The program stores, checks, and edits the data as it is collected.

STAND TABLE REPORT

Figure 2: Stand Table Report

Stand Table Report																			
Date: JUL 05 2001																			
STAND TABLE 1: BASIC STAND CHARACTERISTICS																			
Does not include stumps (Tree status = "S") or down trees (Tree status = "X" or "Y")																			
Project: CSE VLA SLEAVES DW Setting: 14: 02092148100001700010 Plot Region: 02 Plot Forest: 01 Subplot: 02 Location: 14810001719 Stand: 0010																			
Area: 1.00 EV: 1.00 PV: 1.00 Slope: 1.00 Aspect: 1.00 Elev: 1.00 Mean Date: 0001-01-01 Mean No: 1																			
All Species																			
Diameter Class	LIVE										RECENT MORTALITY				OLDER DEAD				Total
	TPA	BA/A	SDI	QMD	AVG HT	AVG DB	AVG AGE	AVG DBH	AVG DBH	TPA	BA/A	QMD	AVG HT	TPA	BA/A	QMD	AVG HT	TPA	BA
1 - 1.9 in.																			
2 - 2.9 in.																			
3 - 3.9 in.																			
4 - 4.9 in.																			
5 - 5.9 in.																			
6 - 6.9 in.																			
7 - 7.9 in.																			
8 - 8.9 in.																			
9 - 9.9 in.	18.71	18.80	19.0	9.0	88														18.71
10 - 10.9 in.																			
11 - 11.9 in.																			
12 - 12.9 in.	12.32	18.80	17.8	12.2	98.8	78	121												12.32
13 - 13.9 in.	18.85	18.80	18.5	13.8	13.8	78	115												18.85
14 - 14.9 in.																			
15 - 15.9 in.																			
16 - 16.9 in.	6.72	18.80	15.3	16.5	12.8	88													6.72
17 - 17.9 in.																			
18 - 18.9 in.																			
19 - 19.9 in.																			
20 - 20.9 in.																			
21 + in.	3.38	18.80	14.2	23.3	15.8	85	138												3.38
1 - 2.9 in.																			
3 - 5.9 in.	18.71	18.80	19.0	9.0	88														18.71
7 - 9.9 in.	12.32	18.80	17.8	12.2	98.8	78	121												12.32
13 - 15.9 in.	17.85	18.80	18.5	14.4	13.8	88	115												17.85
17 - 21 in.																			
8 + in.	111.89	18.80	82.8	7.8	15.2	88	38												111.89

FSVeg contains many reports to display and analyze data. Regions and Forests may develop additional reports and add them to the existing list of reports. A report may be generated for all data in the database, or for a sub sample of the data. Reports can be viewed, printed, or saved in various file formats.

The Stand Table Report allows customized diameter class groupings. The Setup screen allows you to select an existing diameter class template, or build a new template. The Stand Table Report contains a stand table summary for each selected setting, one setting at a time. Stand characteristics such as TPA, BA/acre, SDI, and QMD are grouped by diameter classes and by four live/dead categories. The species summary on the third page of the report contains trees with null diameters. The second page of the report contains the standard deviations and coefficients of variation for TPA and BA/acre of live trees in the custom and single group diameter classes. The third page contains stand characteristics by species.

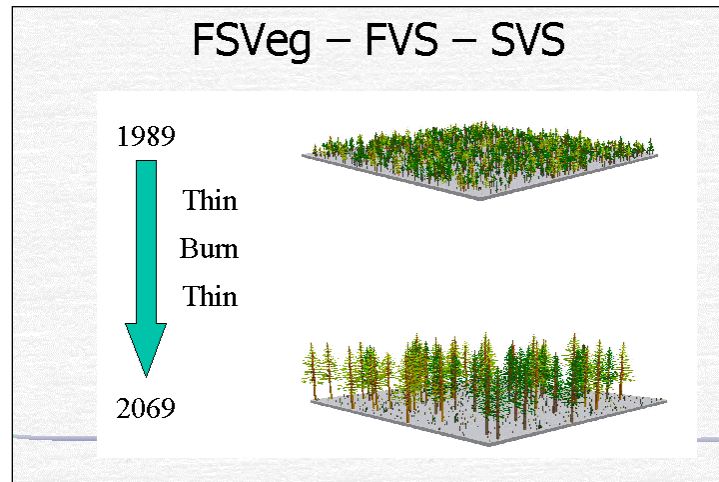
VOLUME REPORT

This report contains a volume summary for each selected setting, one setting at a time. It includes regional equations, user-defined diameter classes, matching National Cruise equations and FSV equations; it also allows you to modify equation parameters

Volumes include total cubic foot volume, merchantable cubic foot volume, and total board foot volume. Volumes are grouped by user defined diameter classes and four live/dead categories.

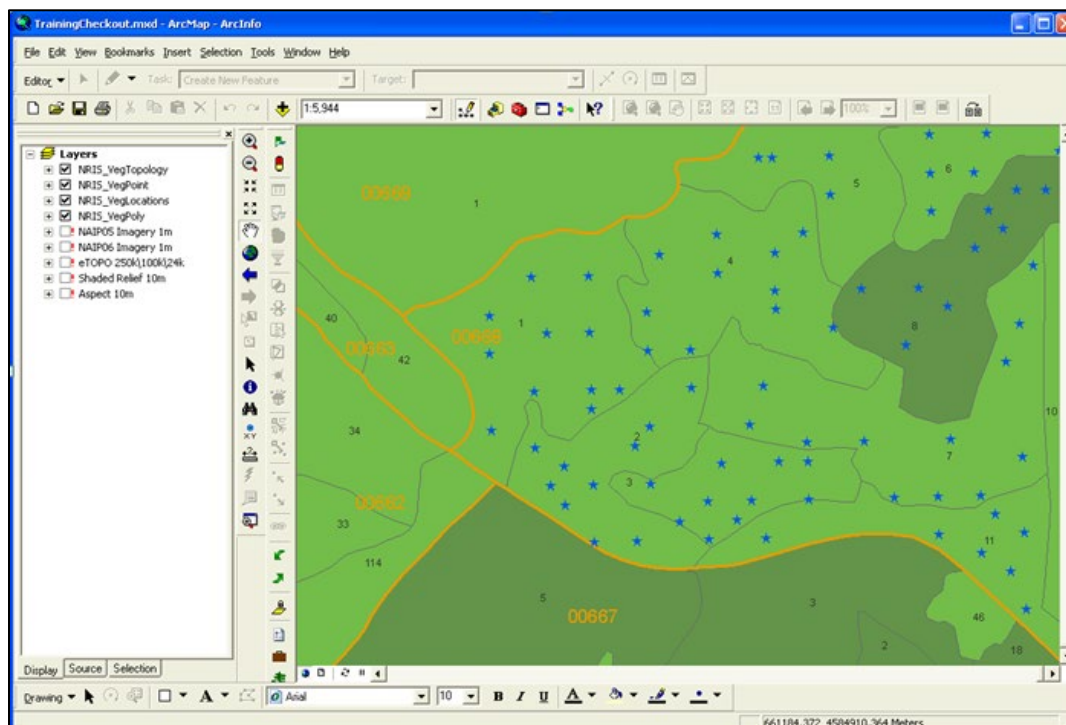
The tree volumes are specific to each species and each Region. They are generated from equations that match the National Cruise Program or the Forest Vegetation Simulator. These equations may be modified for location-specific conditions.

Figure 3: FSVEg -> FVS -> SVS



Data can be extracted from FSVEg and reformatted to run the Forest Vegetation Simulator (FVS). Once data has been run through FVS, it can then be used in the Stand Visualization Simulator (SVS).

Figure 4: ArcMap



FSVEg Spatial: The FSVEg Spatial application is designed to aid in managing both spatial and tabular data in one place, at one time. FSVEg Spatial is not intended to be used as an analysis tool, it is designed to be used by GIS specialists, timber and range managers or

anybody who collect and updates FSveg data. It is not intended as a way to view data for analysis.

ASSISTANCE

The FSveg and PDR staffs maintain web sites with information about FSveg, CSE, PDRs, and NRIS. All FSveg and CSE documents are on the web page. Frequently Asked Questions (FAQs) are posted to the web.

To access the application: <http://fsweb.nris.fs.fed.us/products/FSveg>

Documentation, FAQs and other information: <http://fsweb.nris.fs.fed.us/products/PDR>

For assistance: <http://i-web.wo.fs.fed.us/support/helpdesk/>

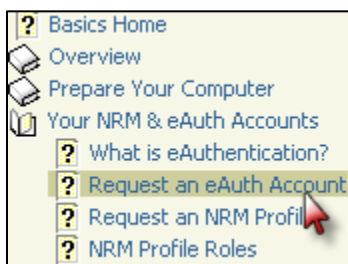
GETTING STARTED

STEP 1) OBTAIN AN eAUTHENTICATION ACCOUNT

If you are a current Forest Service Employee or Contractor that already has an eAuthentication account, skip to [Step 2](#).

On the left side of the page, click on the book icon located next to **“Your NRM & eAuth Accounts”** to expand the folder. Click on **“Request an eAuth Account”** and follow the instructions.

Figure 5: Request an eAuth Account



	Attention new FS users; it can take up to 4 weeks to get your eAuth account.
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STEP 2) REQUEST, EDIT, OR VIEW ADMINISTRATIVE UNITS & ROLES

The following link explains how to request access to Administrative Units and for the Oracle Roles you will need at NRM: <http://basenet.fs.fed.us/support/mergedProjects/uma/>

[On the User Management Application Help page, click on Change My Existing Account \(existing users\).](#)

Figure 6: UMA overview

User Management Application (UMA) Overview

The User Management Application (UMA) is an application within I-Web that performs two primary functions: user access verification and profile management interface.

As a behind-the-scenes agent, UMA controls a user's access to data. When a user logs in to edit data, UMA operates in the background and verifies that the approved roles and organizations within the user's profile match the data he or she is attempting to access.

UMA also is the user interface where users can manage their or others' profiles. I-Web users can request new profiles and existing users can request changes to the roles and organizations in their current profile. Designated UMA Managers can use the application's interface to approve, reject, or modify user profile requests. And I-Web HelpDesk staff can view a profile's history to diagnose any issues.

UMA Support Resources

- [Quick Guides](#)
- [Tutorials](#)
- [Frequently Asked Questions](#)
- [User Guide](#)

I Want To:

- [Request a New Account](#) (new I-Web users only)
- [Change My Existing Account](#) (existing users)
- [Restore an Archived Account](#) (existing users)
- [Approve Account Requests](#) (UMA Managers only)
- [Find out more about I-Web's User Roles](#)

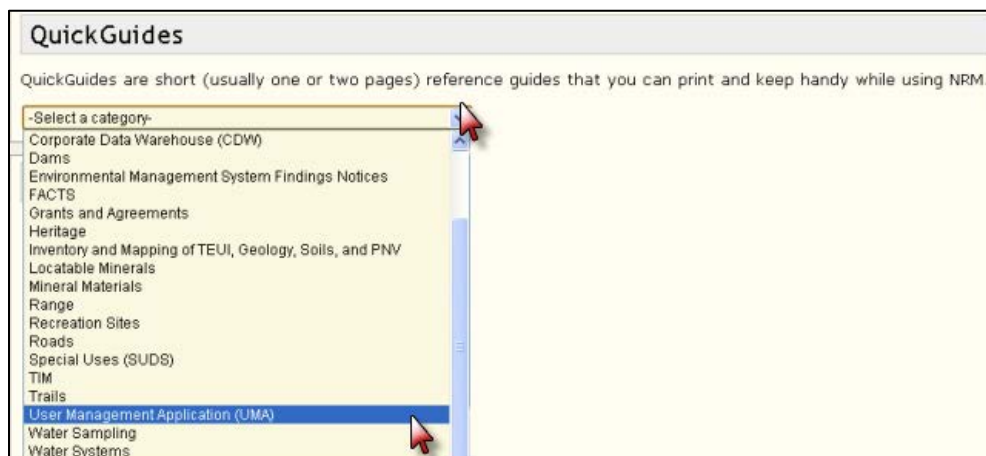
Click on [Change My Existing Account](#) (existing users) and follow the instructions.

For more information on UMA Roles click on the following link:

<http://fsweb.nrm.fs.fed.us/support/quickguides/>

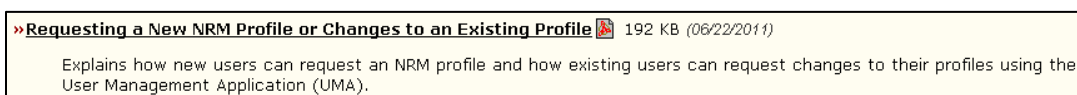
Under the Quick Guides section select User Management Application (UMA).

Figure 7: QuickGuide links



Select the following document for detailed information on UMA Roles.

Figure 8: Document about UMA Roles



The following roles are available for the specified application:

Table 2: FSVeg role names

Role Name	Provides	Assigned to
Data Collector	View the data, insert new data into the database, and edit existing data. Down woody, ground surface cover, vegetation composition, and sample design records may be deleted, one record at a time.	Field Data Collection Crews – data entry using the FSVeg forms
Wizard	View, edit, insert, or delete data. Complete plots and/or settings may be deleted at one time.	Primary Resource Steward – this role is normally granted to one or two persons on each Forest.

Role Name	Provides	Assigned to
Summary	View, edit, insert, or delete data. Complete plots and/or settings may be deleted at one time. In addition, users with this role may run the summary programs to populate the summary tables (NRV_CHARACTERIZATIONS and NRV_GROUP_BY tables).	n/a

Table 3: FSveg Spatial role names

Role Name	Provides	Assigned to
Spatial Editor	Check-out and editing or spatial data.	n/a
Spatial Steward	Check-out and editing of spatial data as well as the authority to check the data into NITC.	n/a

Table 4: FSveg Spatial Data Analyzer role names

Role Name	Provides	Assigned to
Analyzer NN Editor	Allows for publishing NN scenarios. The user would be restricted to publishing data in their administration region (e.g., 06) or forest (e.g., 0604).	n/a
Analyzer Config Editor	Allows for publishing of all other types of configuration data (e.g., FRCC, Activities, etc.). the user would be restricted to publishing data in their administration region (e.g., 06) or forest (e.g., 0604).	n/a

STEP 3) ACCESSING THE APPLICATIONS

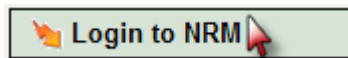
FSVeg

The FSVeg application is a web based application that is accessed via the Natural Resource Manager web page. Click on the following link to access the FSVeg application.

<http://fsweb.nrm.fs.fed.us/>

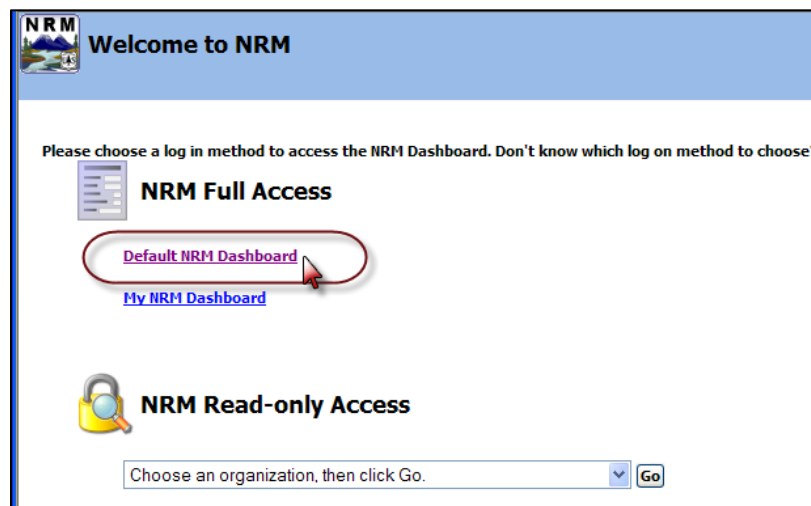
Login to NRM by clicking on the **Login to NRM** button located on the left-hand side of the page.

Figure 9: NRM login button



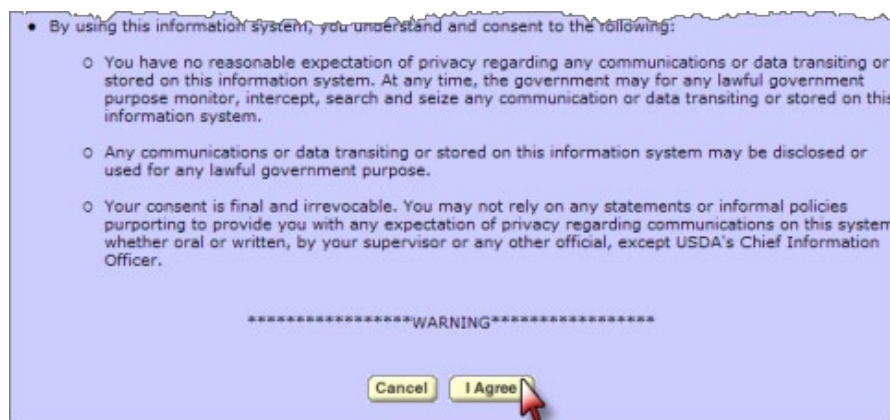
The Welcome to NRM window opens, under the heading **"NRM Full Access"**, click on the **"Default NRM Dashboard"** option.

Figure 10: NRM Dashboard



At the next screen select **"I Agree"**.

Figure 11: "I Agree" button



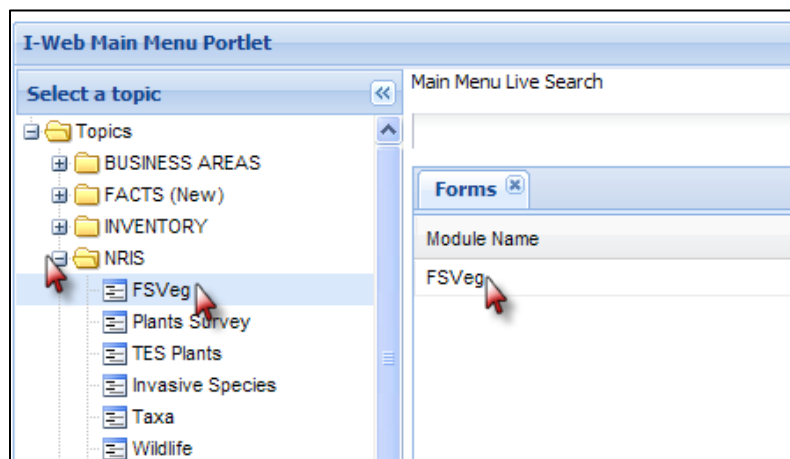
Enter your **“eAuth”** user ID and password, and then click the **“Login”** button.

Figure 12: eAuth Login

The image shows a web form titled "eAuthentication Login" with a green header. Below the header is a section titled "Login with my User ID and Password". It contains two input fields: "User ID:" and "Password:". To the right of the "User ID:" field is a link "Forgot your User ID?". To the right of the "Password:" field are two links: "Forgot your Password?" and "Change My Password". At the bottom center is a yellow "Login" button.

The I-Web Main Menu Portlet page is now displayed. Click on **“+”** sign next to **“NRIS”** on the left-hand menu, then click on **“FSVeg.”** On the right-hand side of the screen, click on **“FSVeg.”**

Figure 13: I-Web main menu

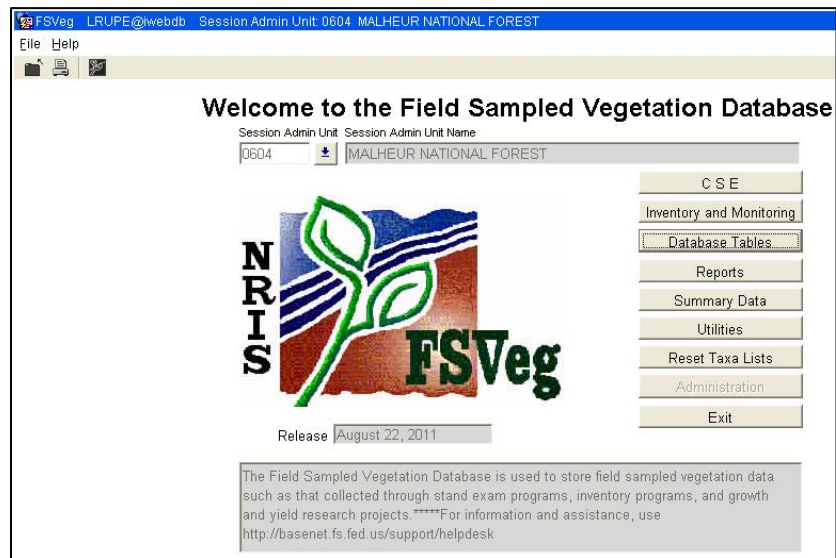


If the FSVeg forms open:

You are now in the FSVeg Main Menu. This shows which Administration Forest is the default value for the user. If there is no entry, simply press the LOV Admin Unit Item and select an Admin Unit from the list of available entries, select **“OK,”** then select the **“Set as Default”** button.

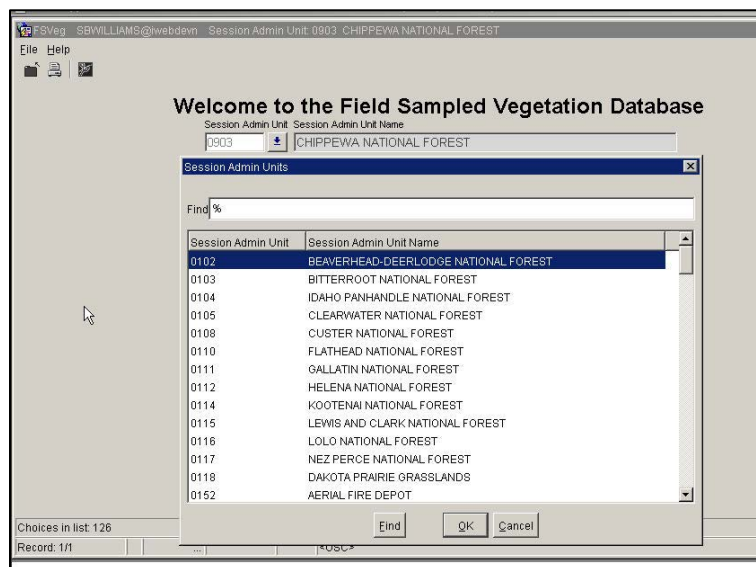
In the example below the user is logged into FSVeg with the ability to edit and/or update only Admin Unit 0604 or the Malheur National Forest data.

Figure 14: FSVeg screen



If a user has been granted access to edit/update data on multiple Forests, and wishes to change their current specified session administrative unit, they simply press the LOV button next to the Session Admin Unit and select a different Admin Unit, click "OK," then select either the "For Session Only" or "Set as Default" button. In the example below the user had been granted UMA roles to MANY forests in Region 1. FSVeg documentation is available on the [product page](#).

Figure 15: FSVeg database form



FSVEG SPATIAL

FSVeg Spatial is an ArcMap extension. For detailed instructions on installing the ArcMap extension and initializing the toolbars see [Chapter 1 Introduction in the FSVeg Spatial Editor's Guide](#).

FSVEG SPATIAL DATA ANALYZER

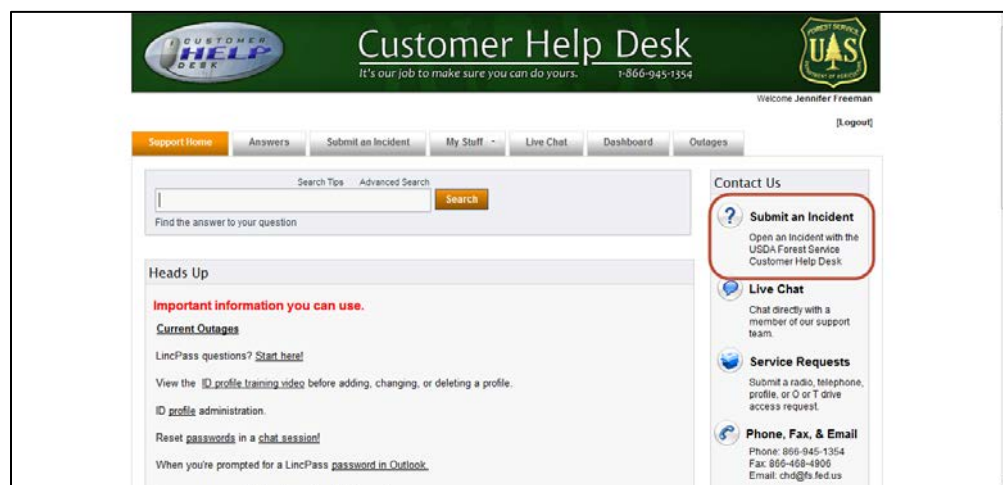
FSVeg Spatial Data Analyzer is an ArcMap extension. For detailed instructions on installing the ArcMap extension and initializing the toolbars see [Chapter 1 Introduction in the FSVeg Spatial Data Analyzer Analysis Guide](#).

TECHNICAL SUPPORT

If you have questions or need help with the Air application, contact the [Customer Help Desk](#) to complete a ticket.

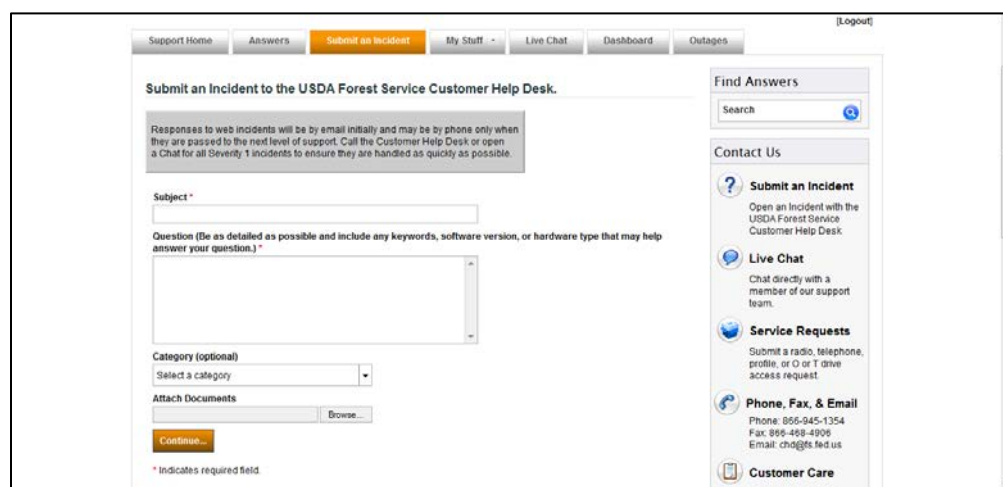
1. Click on the “Log in to Customer Help Desk” link to start a ticket
2. You will be asked to eAuthenticate
3. Once you are in the Customer Help Desk site, click on Submit an Incident as highlighted in Figure 16.

Figure 16: Customer Help Desk webpage



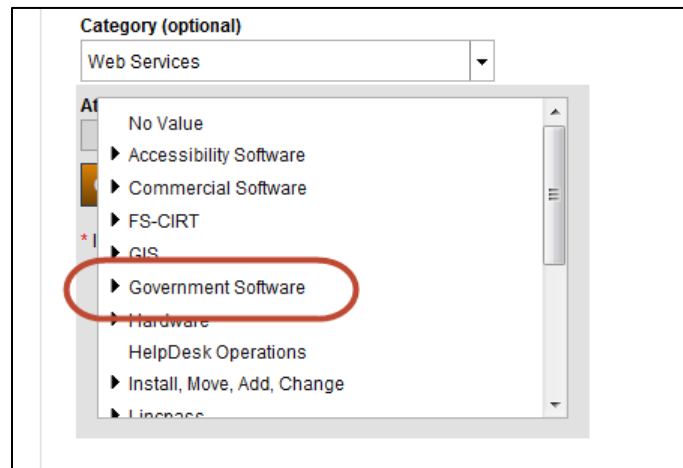
4. Complete the Subject and Question fields and, if possible, include a screen shot of your issue

Figure 17: Submit an Incident webpage



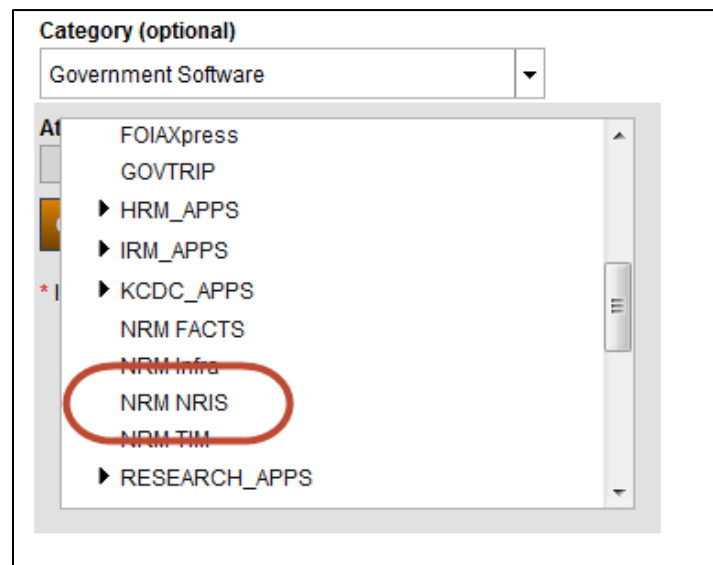
5. In the Category drop-down list, click on the arrow next to Government Software to expand the list

Figure 18: Drop-down list of Categories



6. Select NRM NRIS from the sub-categories

Figure 19: Select NRM NRIS from the list



7. Click Continue...
8. Before your issue is submitted, you will be presented with a list of possible answers to your question, as shown in Figure 20. You can click on these to view the information. If none of these answer your question, click on Finish Submitting Question. If you need to change anything in your submission, click on Back to return to the Submit an Incident page.

Figure 20: Final step of submitting a CHD ticket

The screenshot displays a web interface for submitting a CHD ticket. A modal dialog box titled "Finish submitting your question" is centered on the screen. The dialog contains a yellow warning bar stating "Your question hasn't been submitted yet." Below this, it lists suggested answers that open in a separate window:

- FS: Master Document NRM (Natural Resource Manager)
- FS: Content DB - Requesting Group Manager Role
- FS: Connect-IR Dashboard Application overview and support information
- FS: Correspondence Database Document summary fields do not inherit info embedded Microsoft U
- FS: Correspondence Database Updating, retrieving, or deleting a document in the Records databas

At the bottom of the dialog are two buttons: "Finish Submitting Question" and "Back".

The background interface includes the following sections:

- Subject ***: Air - test
- Question**: (Be as detailed as possible and include any keywords, software version, or hardware type that may help answer your question.) *
this is a test of completing a Help Desk ticket for the Air documentation
- Category (optional)**: Government Software NRM NRMIS
- Attach Documents**: [Continue]
- Submit an Incident**: Open an incident with the USDA Forest Service Customer Help Desk
- Live Chat**: Chat directly with a member of our support team.
- Service Requests**: Submit a radio, telephone, profile, or O or T drive access request
- Phone, Fax, & Email**: Phone: 855-945-1354 Fax: 855-455-4905 Email: chd@fs.fed.us
- Customer Care**: We are listening, tell us how we can improve our service!
- One Stop**:
 - Adoption
 - Albuquerque Service Center (ASC)
 - Contact Us
 - CHD How-To (Videos)
 - CHD FAQs
 - CHD Homepage
 - CIO Security (USDO, US

A footnote at the bottom left states: * Indicates required field.

REGION AND/OR FOREST SPECIFIC OVERVIEW INFORMATION
