

FIDO Custom Retrieval Tutorial

Created with FIDO version 1.5.1.05 – the screen shots may not match exactly with other versions.

Red font indicates specific instructions for you to follow; FIDO key words are in bold font.

Users may want to refer to the **FIADB Users Manual**, which describes the Forest Inventory and Analysis Database (FIADB) structure and defines all the variables in the database. The guide can be downloaded from the FIA Web site library page at <http://fia.fs.fed.us/library/database-documentation/>. FIDO reports are created using the FIADB.

1. Start the FIDO application - From the FIA Data and tools page (<http://www.fia.fs.fed.us/tools-data/>), **click on the FIDO button (Forest Inventory Data Online)** to go to the FIDO Welcome Page. The home page provides a general overview of FIDO, and information about system configuration requirements to run the program.

USDA FOREST SERVICE ver: 1.5.1.05

Start New...

FIA Standard Reports
Produce standard FIA reports on your own selection of states, counties, and survey year(s) ... You can also select from a wide range of custom filters.

Custom Retrievals
Customize a retrieval for your own specific needs or build new, user-defined report templates.

Forest Inventory Data Online (FIDO)

Welcome to FIDO!
FIDO gives you access to the National FIA (Forest Inventory and Analysis) databases. You now have the ability to generate tables and maps of forest statistics through a web browser without having to understand the underlying data structures.
With FIDO, you will be able to run any of the standard reports for a specific area of interest and survey year or, if you are an advanced user, create completely customized reports based on whatever criteria you choose. As an advanced user, you can also save your work to your hard drive to load/rerun your custom FIDO retrievals at a later time.

User Alert -- July 11, 2013:
We are experiencing problems with our on-line tools FIDO and Evaluator. FIA and the Forest Service Chief Information Officer's staff are working to remedy these problems. Thank you for your patience.

Technical Assistance
Regional Contacts
If you have any questions or need assistance, please contact the support person for your region (from the list below):

- **Interior West** (AZ,CO,ID,MT,NM,NV,WY,UT)
Jim Menlove: 801-625-5426 (e-mail: jmenlove@fs.fed.us)
- **Pacific Northwest** (AK,CA,HI,OR,WA)
Karen Waddell: 503-808-2046 (e-mail: kwaddell@fs.fed.us)
- **Northern**
(CT,DE,IA,IL,IN,KS,MA,MD,ME,MI,MN,MO,ND,NE,NH,NJ,NY,OH,PA,RI,SD,VT,WI,WV)
Chuck Barnett: 610-557-4031 (e-mail: cjbarnett@fs.fed.us)
- **Southern** (AL,AR,FL,GA,KY,LA,MS,NC,OK,SC,TN,TX,VA)
Carol Perry: 865-862-2087 (e-mail: cperry@fs.fed.us)

IMPORTANT NOTE:
Read the release information below to see if there are any changes you should be aware of before choosing your report generating tool.
Please enjoy -- The FIDO Team!

System Configuration
In order to run FIDO Standard and Custom reports, you will need the following configuration:

- Windows® Internet Explorer 6 or newer; Mozilla Firefox 3 and above;
- Javascript must be enabled in your browser;
- High-speed (broadband) Internet connection;
- 512MB RAM system memory;
- 2.0+ GHz processor, and
- MSXML 4.0 or 6.0 (Internet Explorer only).

Note: the application runs much better on Internet Explorer 7, 8, or 9, than it does on version 6. For best results with Firefox use versions 3, 7, or later.

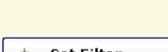
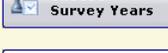
- a. **Select Custom Retrievals** in the left-hand side box to go to the **Custom Retrieval Welcome** page.

Custom Retrievals
Customize a retrieval for your own specific needs or build new, user-defined report templates.

2. Custom Retrieval Welcome Page

- a. Review the list of the 8-step process, beginning with **Start New Retrieval**. Note that these buttons are not active on this page, but will be active once you start the Custom report application.

Creating a Custom Retrieval
There are 8 steps to creating and saving a custom report. You can go to any step by clicking on the matching button displayed in the right-hand column. You can also let the wizard guide you through the process by clicking the "Continue" button at the bottom of the page. Below is a brief description of each of these steps:

	You start your custom retrieval with this step. You can choose to either start a completely new retrieval/template or pick one of the existing retrievals/templates to use as a starting point.
	The summary attribute is the value that will be displayed in the cells of your tabular report. Examples include <i>Area of land</i> , <i>Tree volume</i> , <i>Tree mortality</i> , etc.
	When you define your report layout, you select how the summary attribute defined above is grouped and reported. FIDO II retrievals are broken down into three axes. In tabular reports the axes define table, row, and column breaks. You will be required to select an attribute for each axis.
	Set filters to restrict the data that will be used to generate your report. Each of the filter options has subcategories. You may select as many as you wish.
	Define the geographic region for your report by selecting states and counties here. You can specify a circular boundary (latitude, longitude, and radius in miles) to further refine the region.
	From this page, you will select the survey years on which you want to base your retrieval. The survey years displayed are dependent on the states you selected in the previous step.
	Once you have finished setting up your reports, this step allows you to review your selections and generate a report in various formats (presently only HTML tables are supported, but more are coming soon).
	Click this button if you want to save your custom retrieval. You will have the option to name the retrieval, give it a title, description, and author. You can also choose in which category the retrieval will appear.

- b. Click on the **Begin Creating Custom Reports>>** button to start the Custom FIDO session.

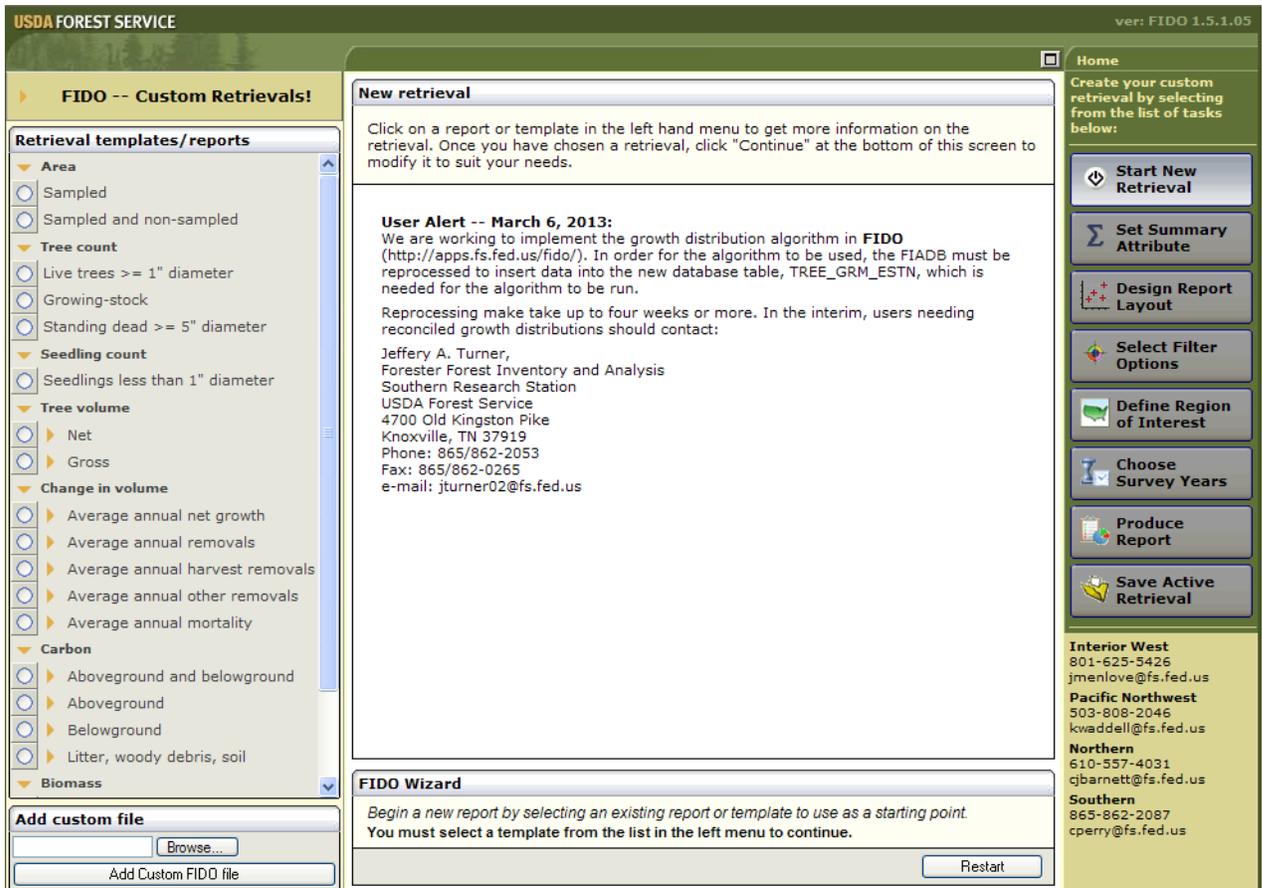
Creating Custom Retrievals

Use this mode of the FIDO application to create new, custom retrievals. You'll be able to do everything from selecting your summary attribute to choosing custom filters and the report layout display. The next sections describe in some detail how this mode of FIDO works...

Begin Creating Custom Reports >>

3. Layout of the FIDO tool site. Every page has 3 sections.
 - a. The right hand column displays the 8-step menu buttons to building a custom report.
 - b. The left hand column contains selections that are dependent on which menu is currently running.

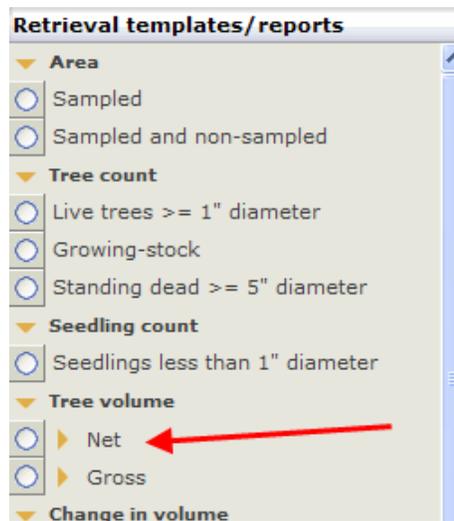
- c. The upper middle space shows the report output, provides information on the menus, and displays maps for selecting the geographic area of your report. The lower middle space contains the FIDO Wizard, which provides instruction for the current menu and an update as to the status of the report. As you'll see in subsequent menus, the Wizard's **Continue>>** button leads the user to the next step required to create a report. Also, a **Minimize Wizard** option will become available to provide more viewing space for the upper middle section.



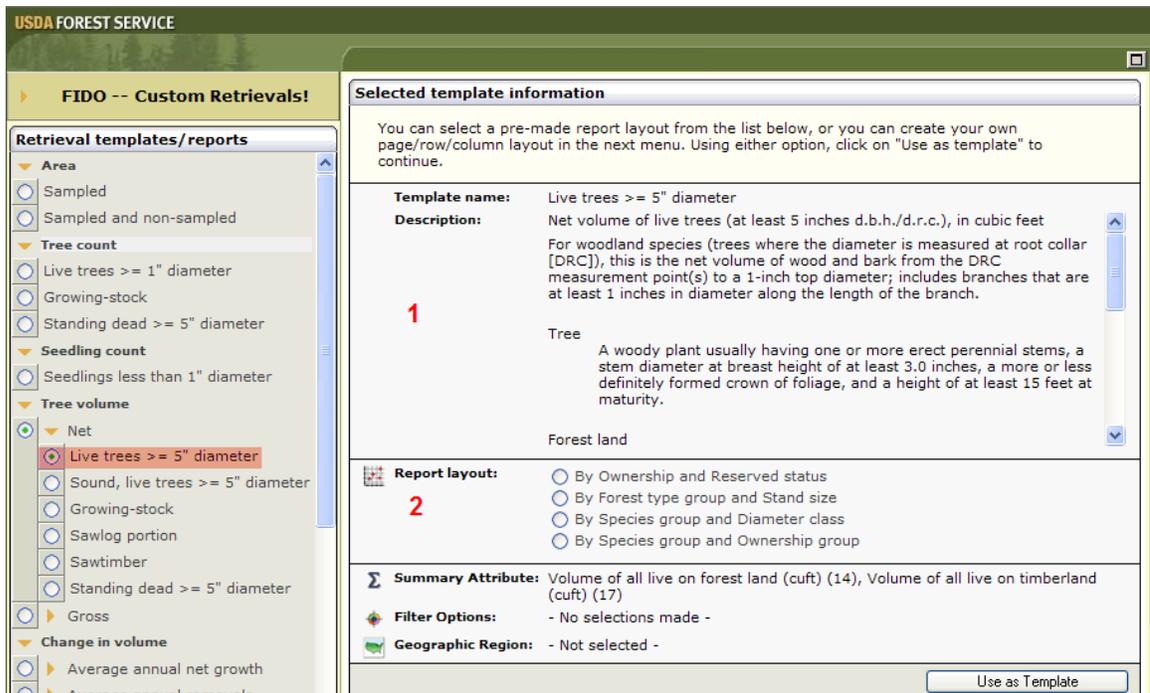
4. Start New Retrieval Page

- a. The report template is the basic structure of the report, and is the first step towards generating a report. Note the FIDO Wizard states that, in order to continue, a report template must be selected.

- b. Click on **Net** in the **Tree Volume** category in the left hand column to view the list of report types that use net tree volume for a report summary attribute.



- c. Click on the radio button next to **Live trees >= 5" diameter**. Notice that the middle display section now contains descriptive information about the summary attribute (1), and a selection of report layouts (2).



- d. Review the descriptive information (use the scroll bar to view all). **Choose By Ownership and Reserved status** for your report layout. The **Selected template information** now includes descriptions of **Ownership** and **Reserved status** attributes for your review.
 To continue, **click on Use as Template.**

USDA FOREST SERVICE

FIDO -- Custom Retrievals!

Retrieval templates/reports

- Area
 - Sampled
 - Sampled and non-sampled
- Tree count
 - Live trees >= 1" diameter
 - Growing-stock
 - Standing dead >= 5" diameter
- Seedling count
 - Seedlings less than 1" diameter
- Tree volume
 - Net
 - Live trees >= 5" diameter
 - Sound, live trees >= 5" diameter
 - Growing-stock
 - Sawlog portion
 - Sawtimber
 - Standing dead >= 5" diameter
 - Gross
- Change in volume
 - Average annual net growth
 - Average annual removals
 - Average annual harvest removals

Selected template information

You can select a pre-made report layout from the list below, or you can create your own page/row/column layout in the next menu. Using either option, click on "Use as template" to continue.

Template name: Live trees >= 5" diameter
Description: Net volume of live trees (at least 5 inches d.b.h./d.r.c.), in cubic feet
 For woodland species (trees where the diameter is measured at root collar [DRC]), this is the net volume of wood and bark from the DRC measurement point(s) to a 1-inch top diameter; includes branches that are at least 1 inches in diameter along the length of the branch.

Row break: Ownership
 Landowner classes are a further categorization of the general landowner groupings. Landowner groups and classes:

- 11- National Forest
- 12- National Forest
- 13- National Forest
- 21- National Park Service

Report layout:

- By Ownership and Reserved status**
- By Forest type group and Stand size
- By Species group and Diameter class
- By Species group and Ownership group

Summary Attribute: Volume of all live on forest land (cuft) (14), Volume of all live on timberland (cuft) (17)

Filter Options: - No selections made -

Geographic Region: - Not selected -

[Use as Template](#)

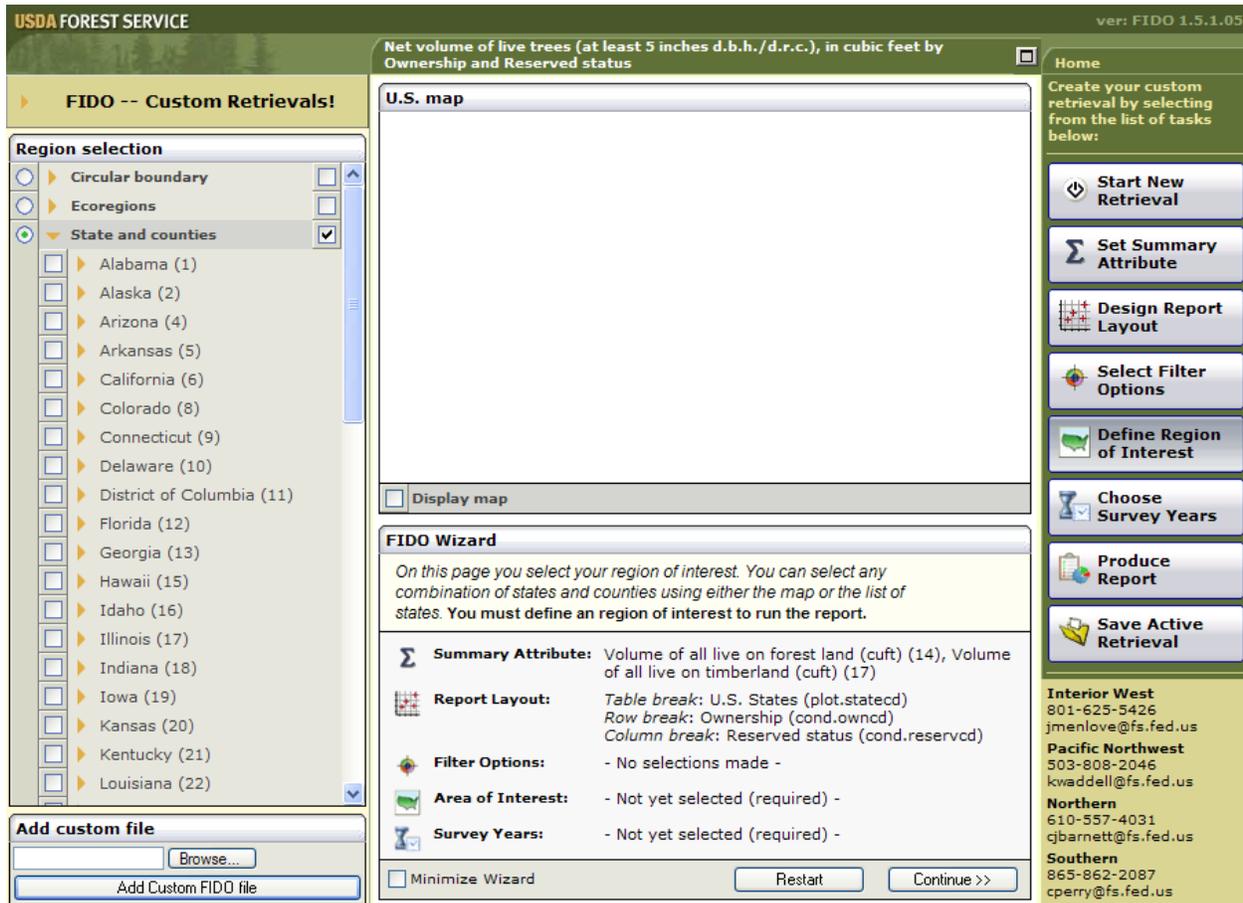
FIDO Wizard

5. **Define Region of Interest**

FIDO then automatically takes you to the next step that it needs to complete the report process, **Define Region of Interest**.

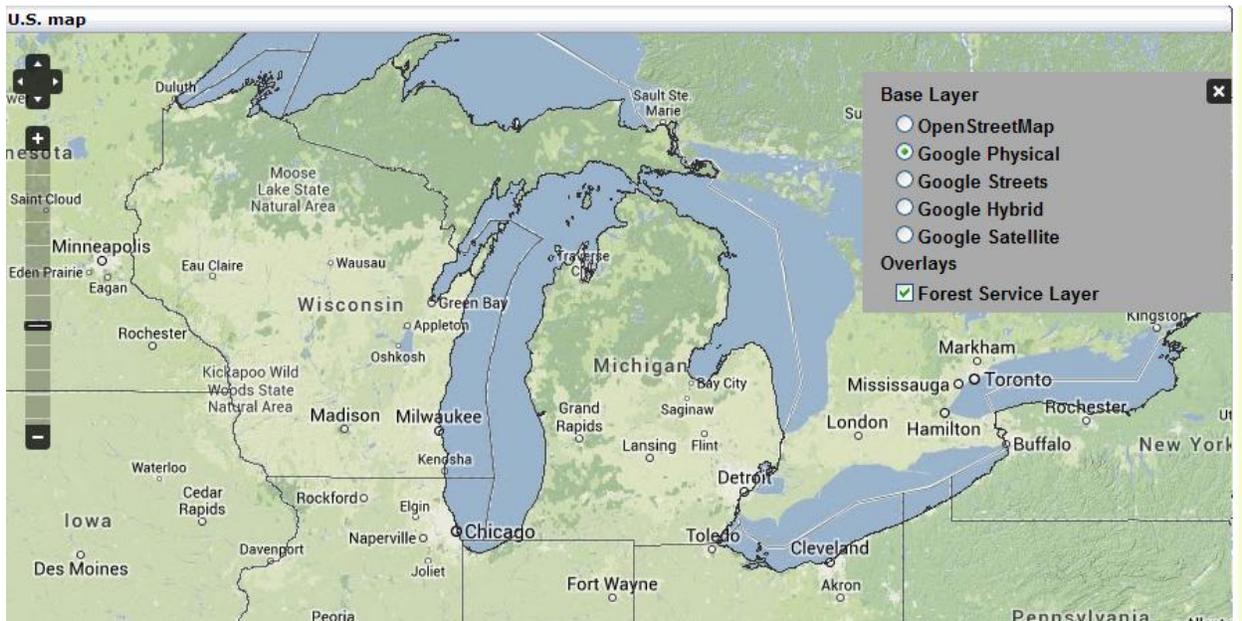
Note that FIDO skipped over steps **Set Summary Attribute** and **Design Report Layout** because these steps have already been taken care of in the pre-made template. Step **Select Filter Options** was skipped over because it is not a requirement to produce a report. The FIDO program will always jump to the next step required to produce a report.

Also note that the **FIDO Wizard** now contains the report information – what has been selected thus far and what information is still needed to complete a report.

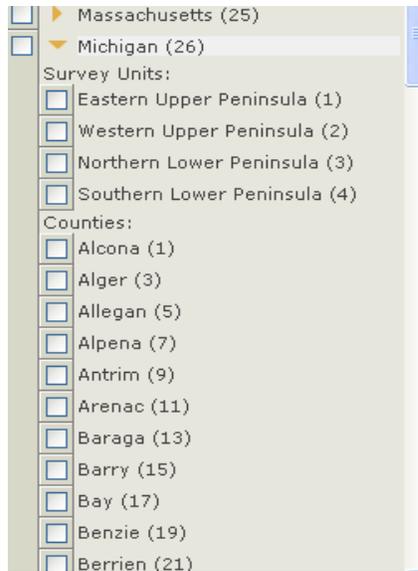


- a. The **Region of Interest** refers to the county(s), state(s), ecoregion(s), or circular boundary on which the report is based. Note that **FIDO Wizard** states that this step is required in order to continue (also note the **Minimize Wizard** option has appeared).
- b. Selections can be made using the list on the left hand column or by using the map in the display window. This demo will show you both options.
- c. Check the **Display map** box to view the map of the U.S. (depending on the network traffic, it may take half a minute for the map to appear).

- f. Zoom in on Michigan, and choose **Google Physical** view.



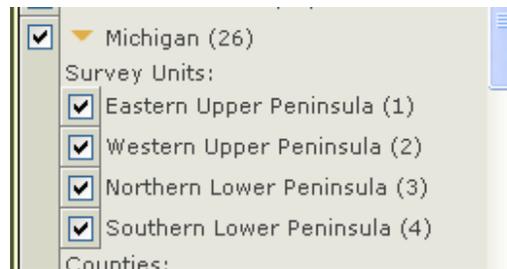
- g. Click on **Michigan (26)** in the **Region selection scroll box** to view the list of Michigan FIA Survey Units and Counties. What is displayed on the map?



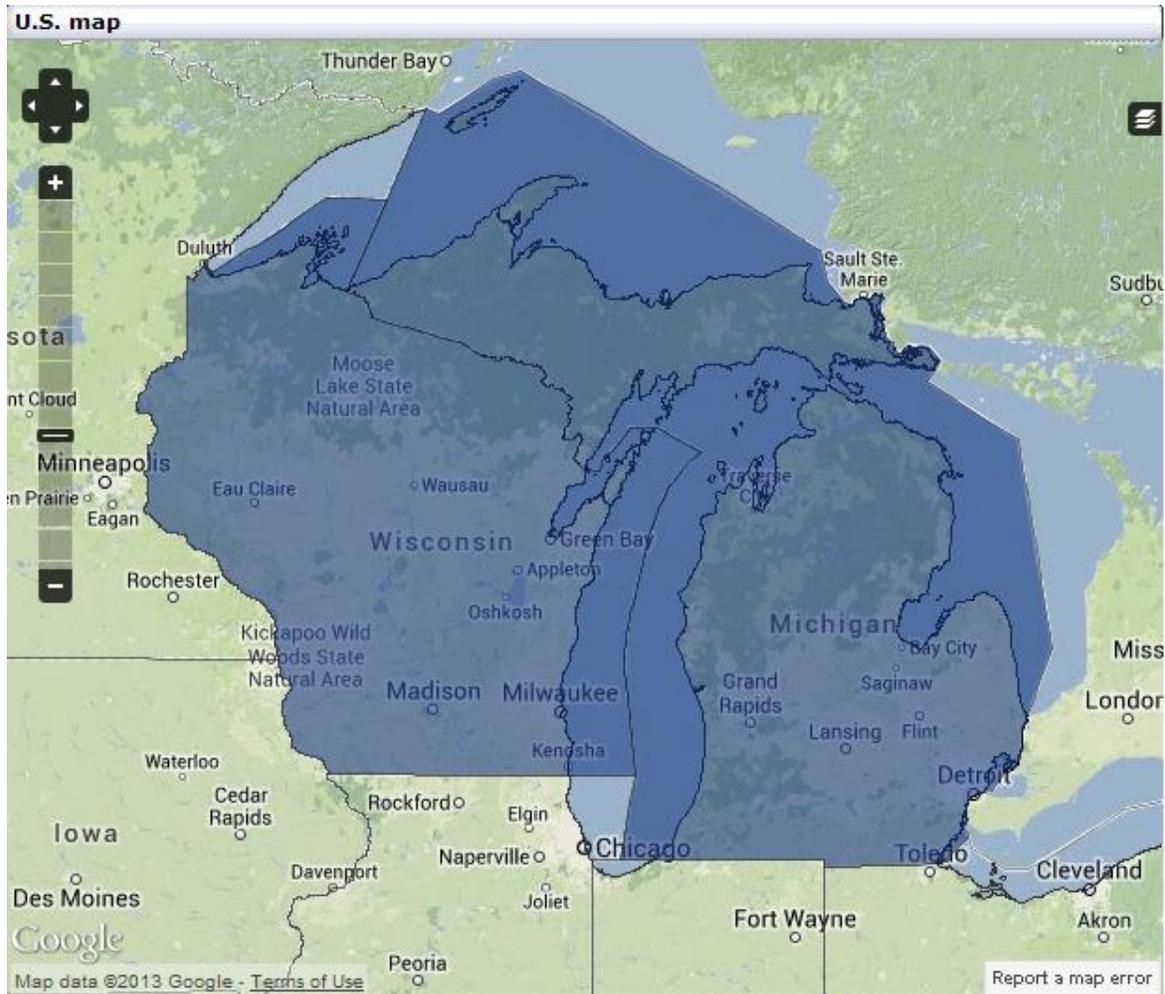
- h. On the map, select and highlight counties in Michigan with a click of the mouse.



- i. What happens to the Michigan county list on the left side of the screen?
- j. Click on the box next to Michigan (26). - Now what is selected on the map?



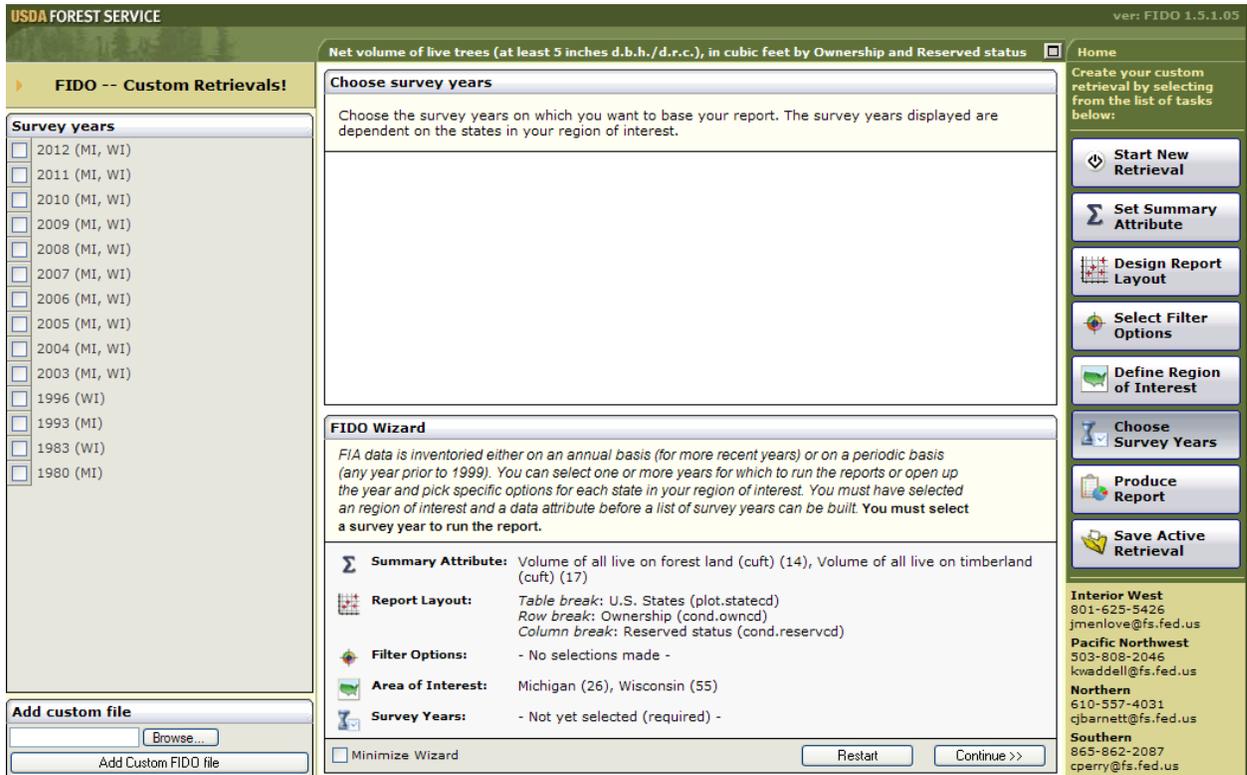
- k. Click on the check box next to Michigan (26) in the state list to deselect.
- l. Close up the county selection list by clicking on Michigan again. The county boundaries on the map should disappear.
- m. Click on Michigan and Wisconsin on the map to highlight and select both states.



- n. **Uncheck the Minimize Wizard box.** Review the **FIDO Wizard** to see that Michigan and Wisconsin now comprise the **Area of Interest** and that **Survey Years** are still to be determined.

Click Continue >> to go to the next step, **Choose Survey Years.**

6. Choose the **Survey Years** - the survey year represents the set of plots that are used to make an estimate. For FIA annual-basis inventories, the survey year defines the last annual inventory year for the rolling-panel set of plots. For FIA periodic-basis inventories, the survey year is the year that best represents when the set of plots were measured. For example, Michigan survey year 2012 contains all the plots measured in the 5 annual inventory panels from 2012, 2011, 2010, 2009, 2008, while survey year 2007 contains the 5 annual inventory panels from 2007, 2006, 2005, 2004, 2003.



- a. Click on the box next to **2012 (MI, WI)** to view the listings of the surveys in the middle display area. These describe the years of the survey and what kind of estimations (timberland and/or forest land) can be produced with that survey. The default is that both state surveys are selected for 2012. To choose only one state for a survey year, click on the box next to the individual state/year in the display area.

USDA FOREST SERVICE

Net volume of live trees (at least 5 inches d.b.h./d.r.c.), in cubic feet by Ownership and Reserved status

FIDO -- Custom Retrievals!

Choose survey years

Choose the survey years on which you want to base your report. The survey years displayed are dependent on the states in your region of interest.

2012

- MICHIGAN 2012: 2008-2012: CURRENT AREA, CURRENT VOLUME
 - Supported attributes:**
 - Volume of all live on forest land (cuft)
 - Volume of all live on timberland (cuft)
- WISCONSIN 2012: 2008-2012: CURRENT AREA, CURRENT VOLUME
 - Supported attributes:**
 - Volume of all live on forest land (cuft)
 - Volume of all live on timberland (cuft)

Survey years

- 2012 (MI, WI)
- 2011 (MI, WI)
- 2010 (MI, WI)
- 2009 (MI, WI)
- 2008 (MI, WI)
- 2007 (MI, WI)
- 2006 (MI, WI)
- 2005 (MI, WI)
- 2004 (MI, WI)
- 2003 (MI, WI)
- 1996 (WI)
- 1993 (MI)
- 1983 (WI)
- 1980 (MI)

b. Choose 2007 and 2012 surveys for both states.

USDA FOREST SERVICE

Net volume of live trees (at least 5 inches d.b.h./d.r.c.), in cubic feet by Ownership and Reserved status

FIDO -- Custom Retrievals!

Choose survey years

Choose the survey years on which you want to base your report. The survey years displayed are dependent on the states in your region of interest.

2012

- MICHIGAN 2012: 2008-2012: CURRENT AREA, CURRENT VOLUME
 - Supported attributes:**
 - Volume of all live on forest land (cuft)
 - Volume of all live on timberland (cuft)
- WISCONSIN 2012: 2008-2012: CURRENT AREA, CURRENT VOLUME
 - Supported attributes:**
 - Volume of all live on forest land (cuft)
 - Volume of all live on timberland (cuft)

2007

- MICHIGAN 2007: 2003-2007: CURRENT AREA, CURRENT VOLUME
 - Supported attributes:**
 - Volume of all live on forest land (cuft)
 - Volume of all live on timberland (cuft)
- WISCONSIN 2007: 2003-2007: CURRENT AREA, CURRENT VOLUME
 - Supported attributes:**
 - Volume of all live on forest land (cuft)
 - Volume of all live on timberland (cuft)

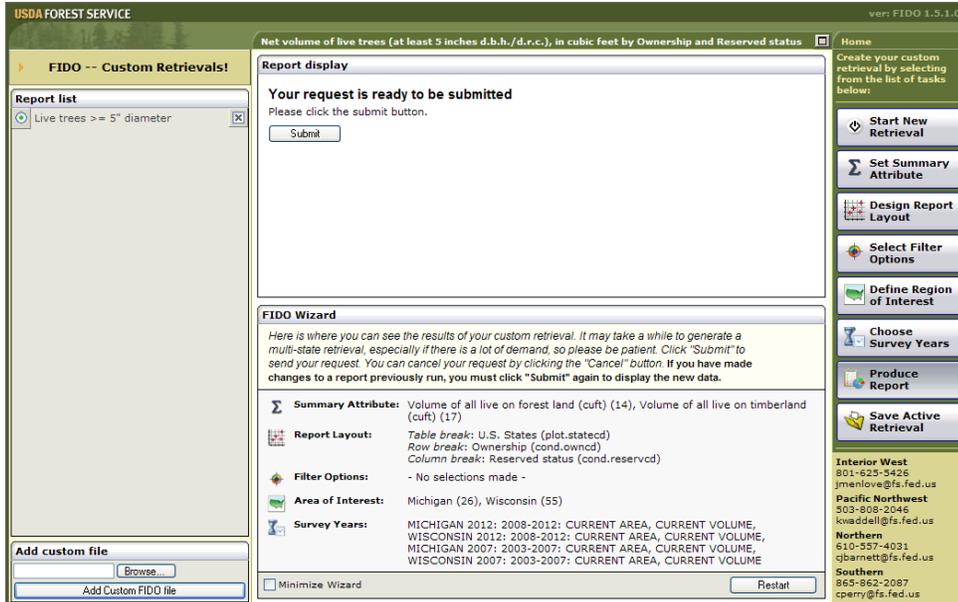
Survey years

- 2012 (MI, WI)
- 2011 (MI, WI)
- 2010 (MI, WI)
- 2009 (MI, WI)
- 2008 (MI, WI)
- 2007 (MI, WI)
- 2006 (MI, WI)
- 2005 (MI, WI)
- 2004 (MI, WI)
- 2003 (MI, WI)
- 1996 (WI)
- 1993 (MI)
- 1983 (WI)
- 1980 (MI)

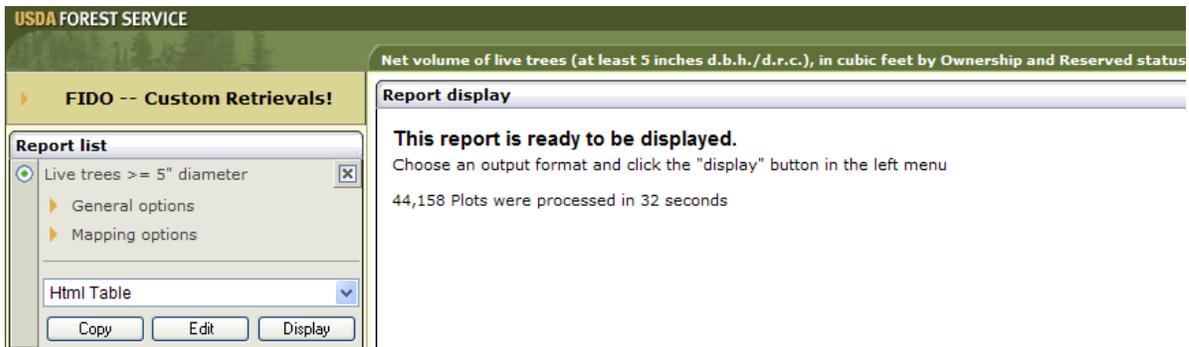
c. Click on **Continue >>**, FIDO moves to the next step, **Produce Report**.

7. Produce Report

- a. The **FIDO Wizard** now lists all the options that have been selected for the report. Your report is listed in the left column.

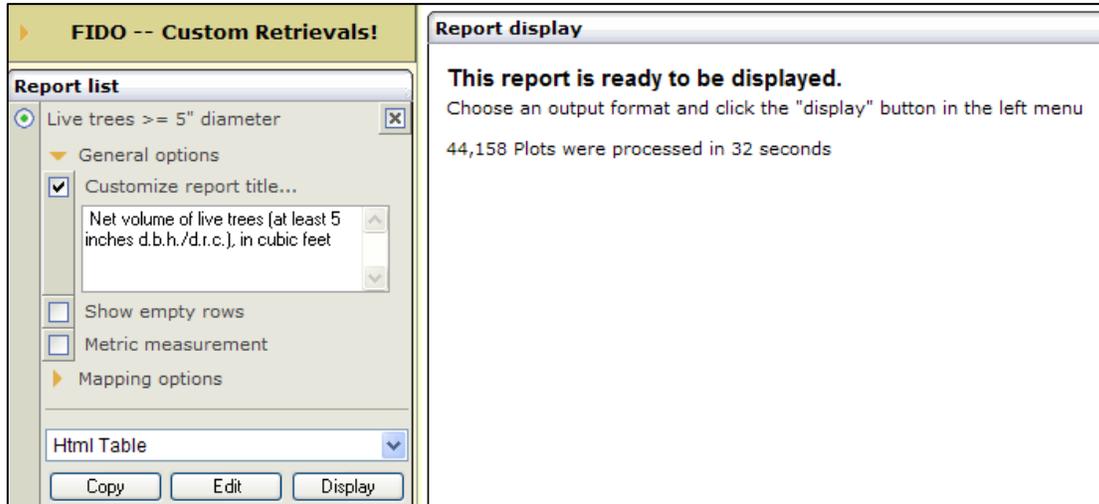


- b. To produce the report, **click on the Submit button (once!)**. “Your request has been submitted” appears in the display window. The report list button revolves around until the report is ready for you to choose the display options.
- c. When finished, “**This report is ready to be displayed.**” will appear in the report window. Display options appear in the left column.

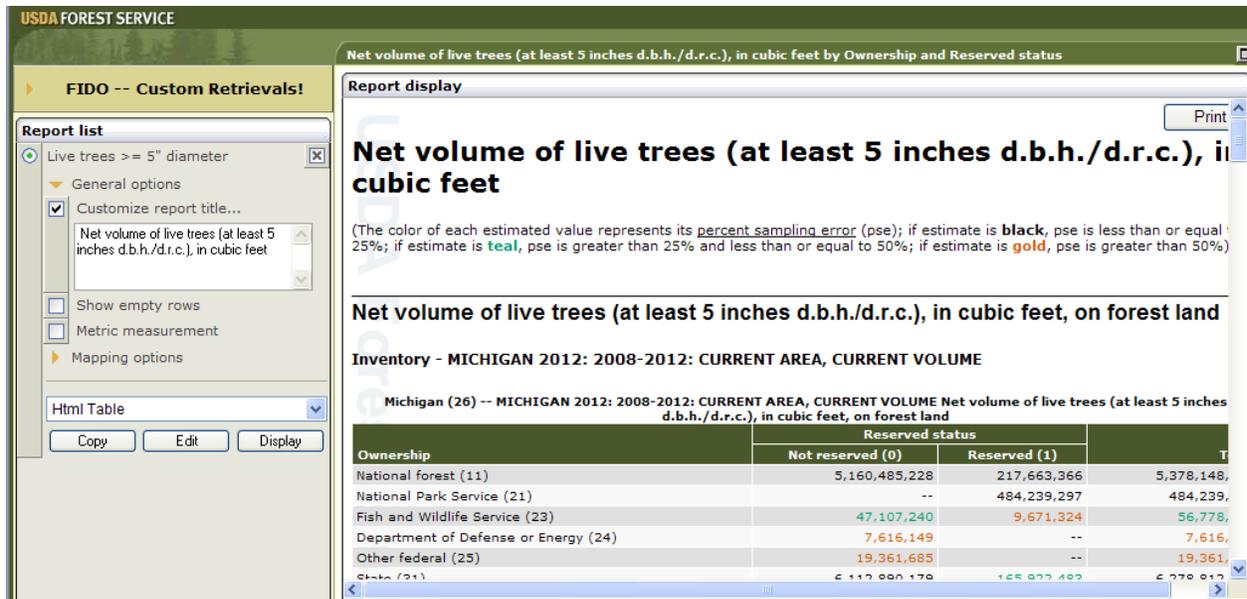


- d. **General options** apply to all report formats, while **Mapping options** apply to Map format only. **Click on General options** to view the list. **Click on the box next to**

Customize report title and type in your own title. The option, **Show empty rows**, displays all possible categories of the row attribute, regardless of zero values for those categories. The option, **Metric measurement** displays the report in metric units.



- e. The default format is **Html Table**. Use this default, and click on the **Display** button. The report appears in the center of the screen.



- f. To get a better view of the report, click the maximize button in the upper right corner of the **Report display**.

- g. There are 10 tables displayed in the report. The first five are forest land estimates for the two states and two survey years, followed by a summary report for forest land. The last five are timberland estimates for the two states and two survey years, followed by a summary report for timberland. **Scroll down to view the reports.** Note the different colors of the values throughout the table output. These indicate the range of percent sampling errors (pse) at 68% confidence interval; black estimates represent a pse of 25% or less, green is 26-50%, and red is greater than 50%. **Move your cursor over any estimate** to view the exact percent sampling error.
- h. **Scroll to the bottom of the report** to view the **Domain break descriptions** included in the report.

Report display

Domain break descriptions

Table-break attribute

State

U.S. State code and name.

Row attribute

Owner Class

Landowner classes are a further categorization of the general landowner groupings. Landowner groups and classes:

- 11- National Forest
- 12- National Forest
- 13- National Forest
- 21- National Park Service
- 22- Bureau of Land Management
- 23- Fish and Wildlife Service
- 24- Department of Defense/Energy
- 25- Other federal
- 31- State
- 32- Local (County, Municipal, etc)
- 33- Other non-federal public
- 46- Undifferentiated private

Column attribute

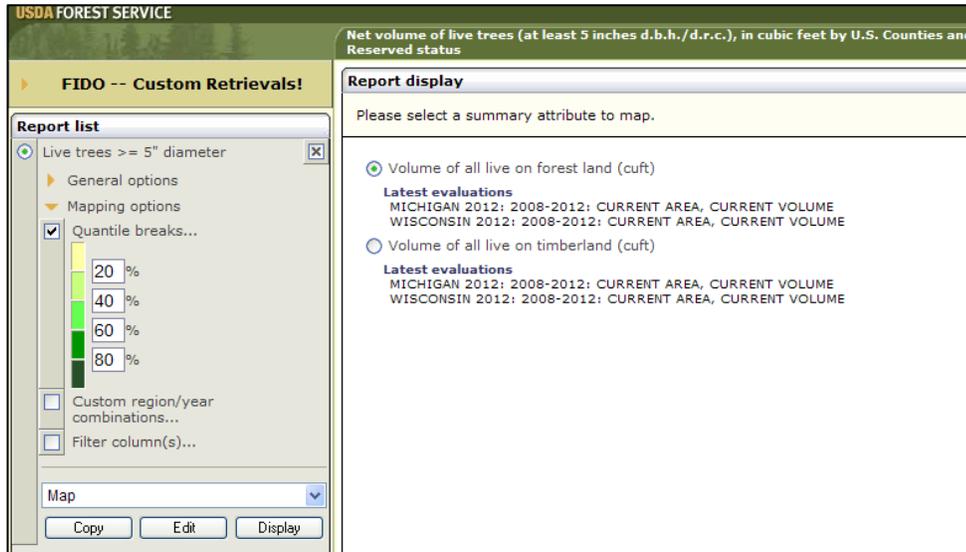
Reserve Status

Reserved land is land that is withdrawn by law(s) prohibiting the management of the land for the production of wood products. Reserved status is either 'Not reserved' or 'Reserved'.

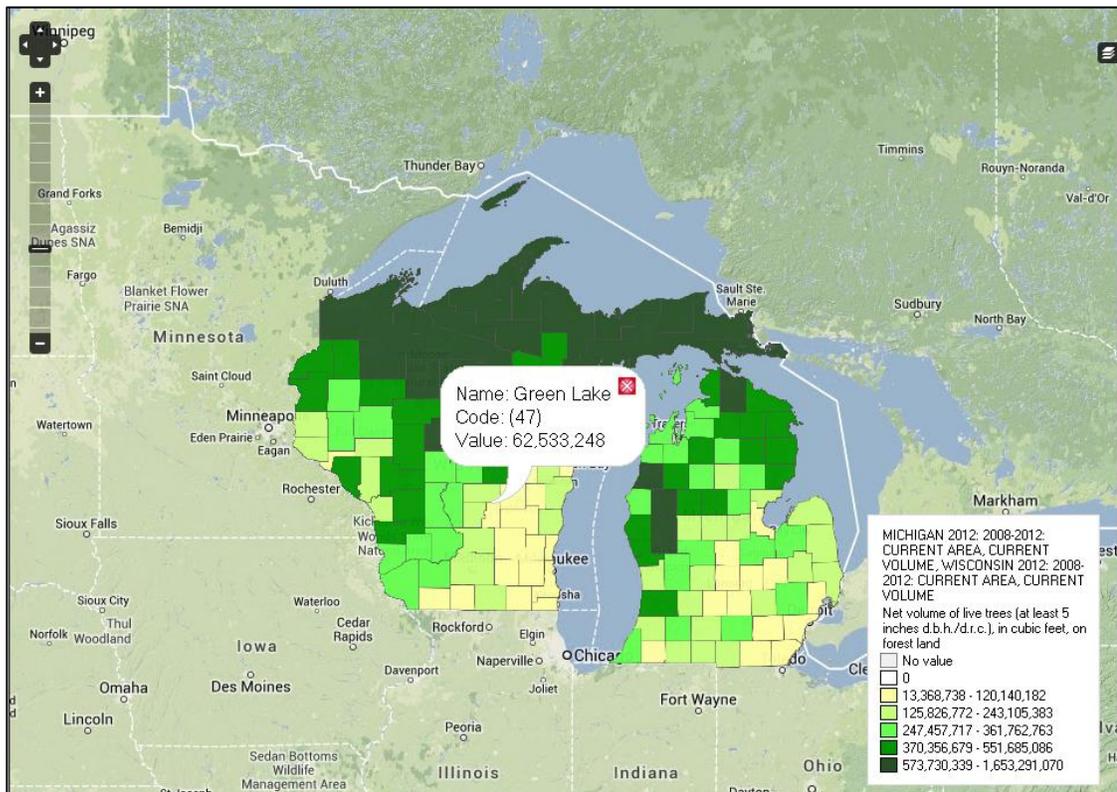
- 0- Not reserved
- 1- Reserved

- i. **Other display options and formats** –The other display formats are: **PDF**, **Spreadsheet** (MS Excel), and **Map** (Google map). **General options** apply to all display formats, while **Mapping options** apply to the **Map** format only.

- j. Click on the arrow in the drop down box and select **Map**. Click on **Mapping options** to view the list of map display options. Click on the box for **Quantile breaks...**. These are the default **Quantile breaks**, which you may change to your preferences.



- k. Click on **Display** to view the map. You can select different base layers, minimize the base layer box, move the legend to where you want it, and view the county name, code, and estimate by clicking on the county.



- I. **Now go back to the display options and choose the **Spreadsheet** and then the **PDF** options.**

Note that the spreadsheet contains two worksheets – the first one contains the report estimates and the second one contains the percent sampling errors.

The PDF output contains the estimate and pse on the same line.

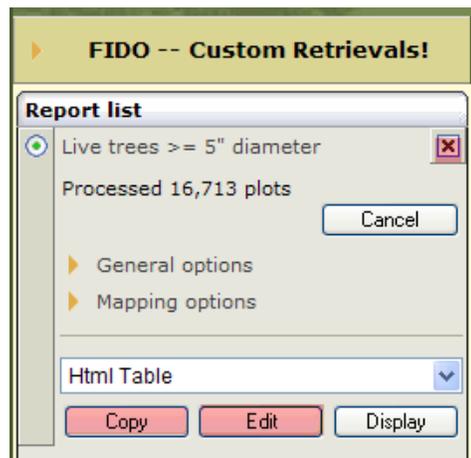
Both outputs can be saved for future use.

- m. **Other options – Copy, Edit, Delete**

The **Edit** button will make the task buttons available, so that the report can be changed (user can alter anything – from the **Summary Attribute** to **Survey Years**)

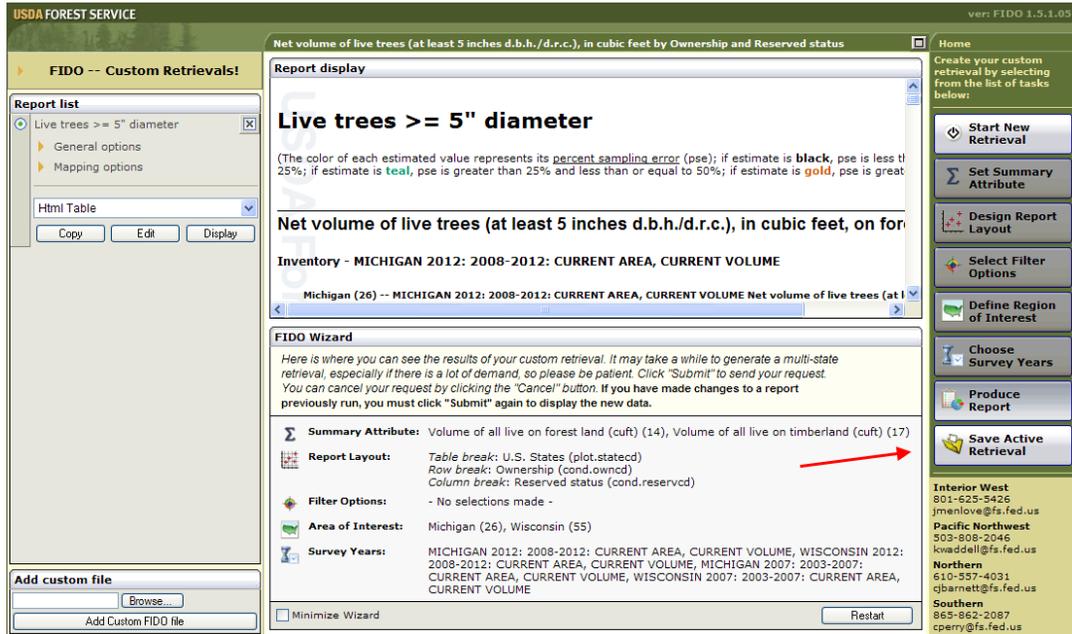
The **Copy** button will add a duplicate report to the report list, which can then be edited.

The **X** button next to the report will remove the report from the list.

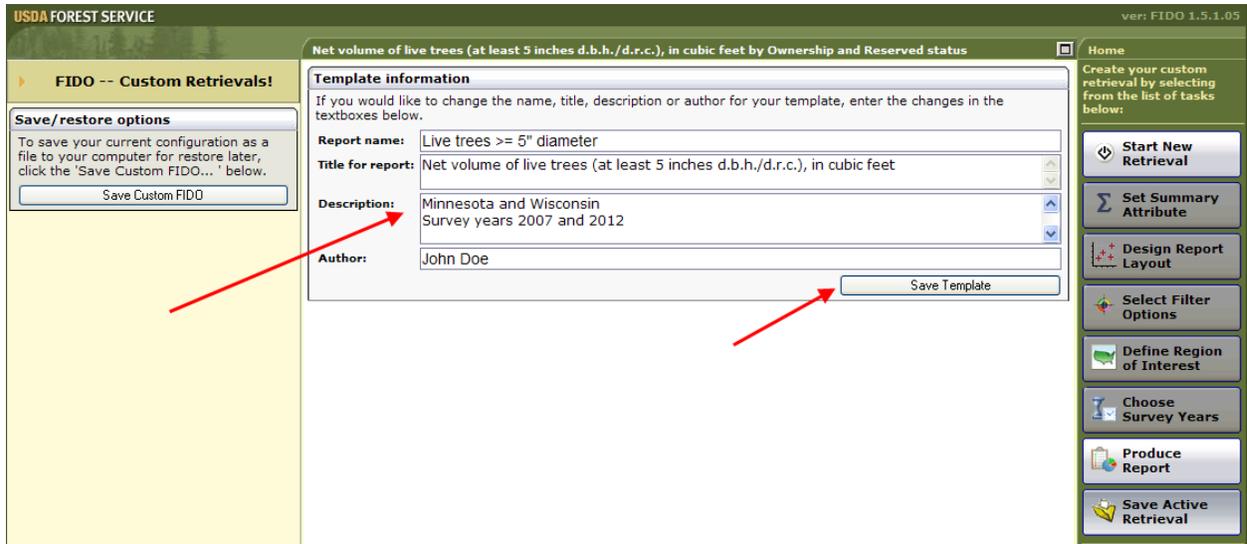


8. **Save Active Retrieval** – FIDO reports can be saved and uploaded for use in a future FIDO session. Saving is a two-step process – the report is first saved for the active session, and then the session configuration is saved to a file on the user's computer.

- a. Click on the **Save Active Retrieval** button.



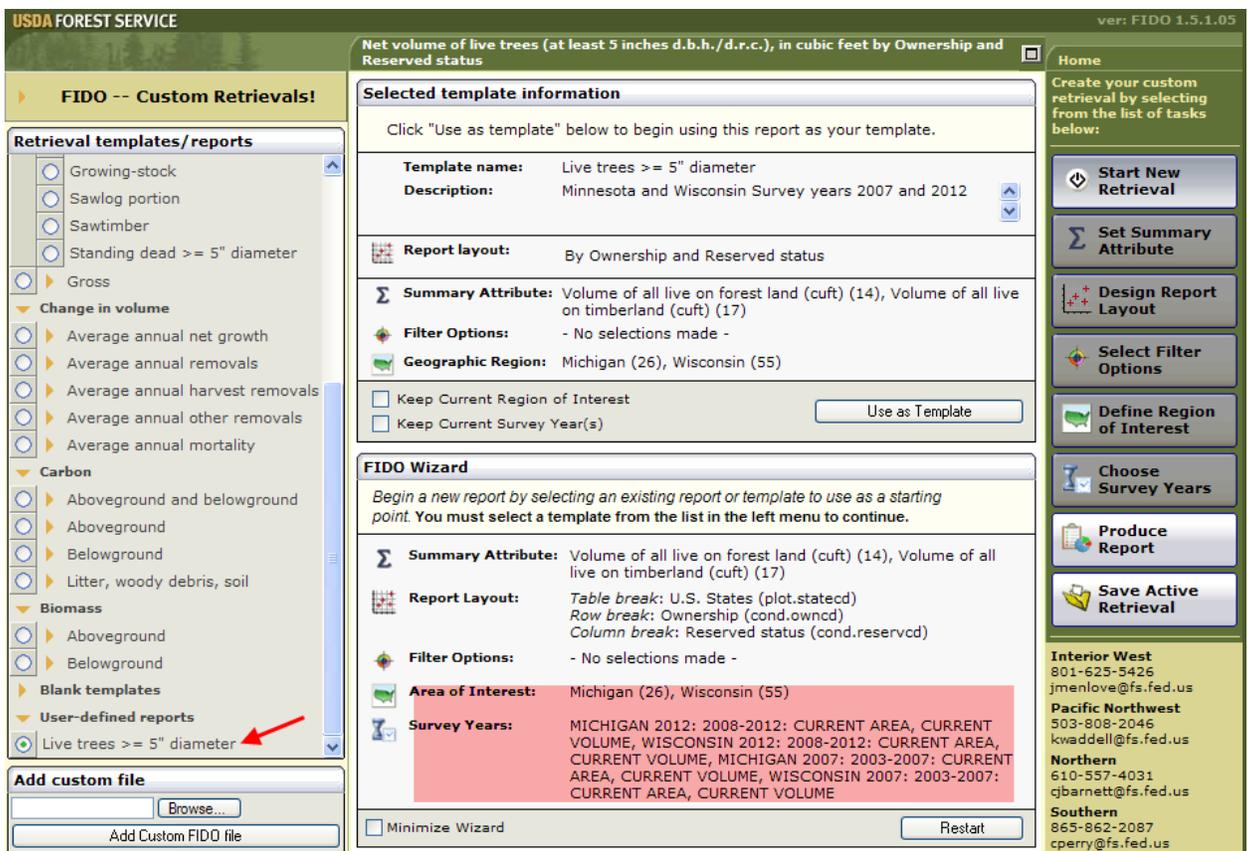
- b. Enter the **Template information** and select **Save Template** to save the report to your active session (first step).



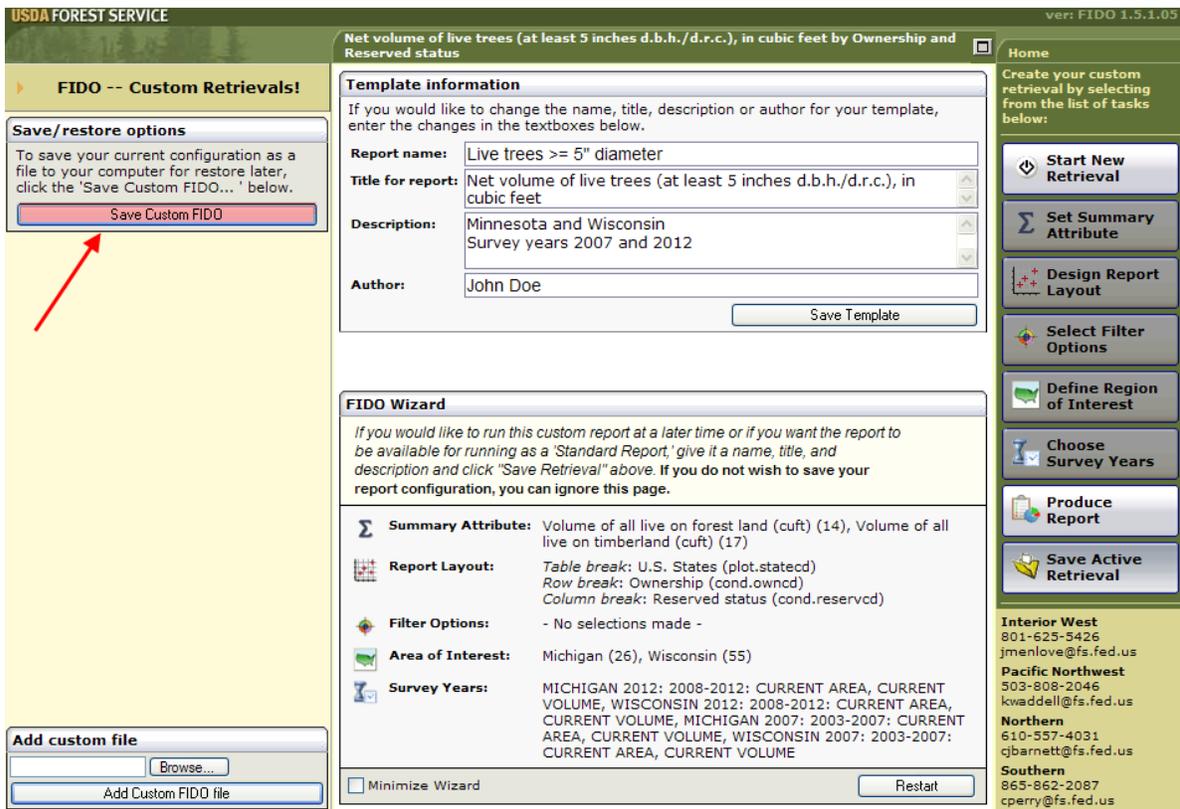
- c. This message will appear. Click **OK**



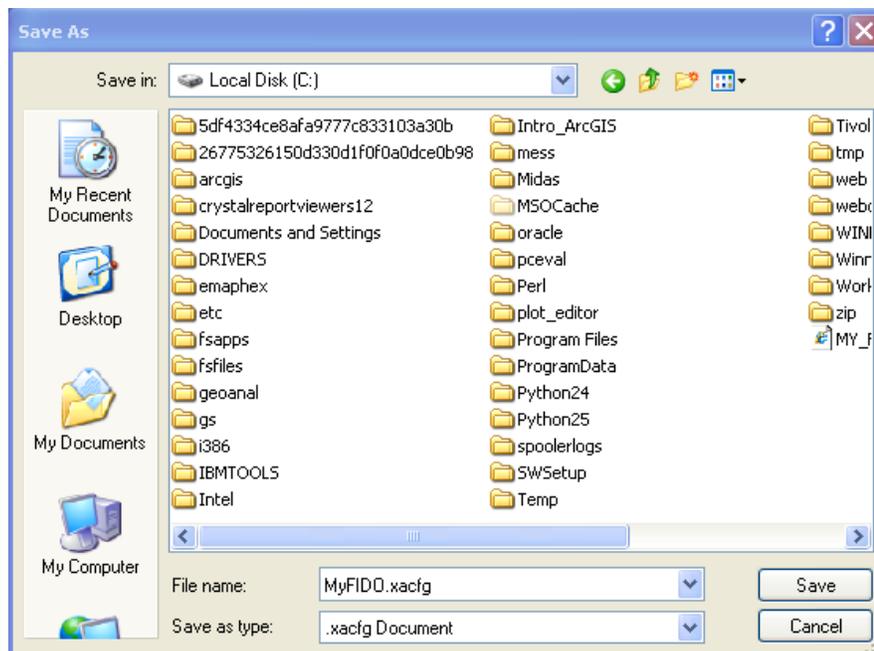
- d. To see the results of the first step, **click on the Start New Retrieval button and then User-defined reports** to view your saved report. Note that the template has all the preselected **Region of Interest** and **Survey Years**. You can either submit the report as is, or edit it with other selections.



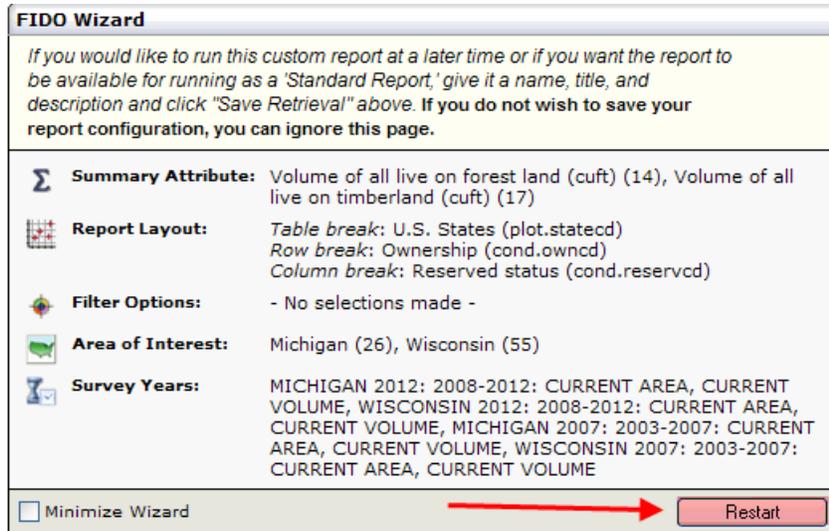
- e. The second step is to save the active session configuration file to your PC. **Click on Save Active Retrieval** to go back to the save window. **Click on Save Custom FIDO**.



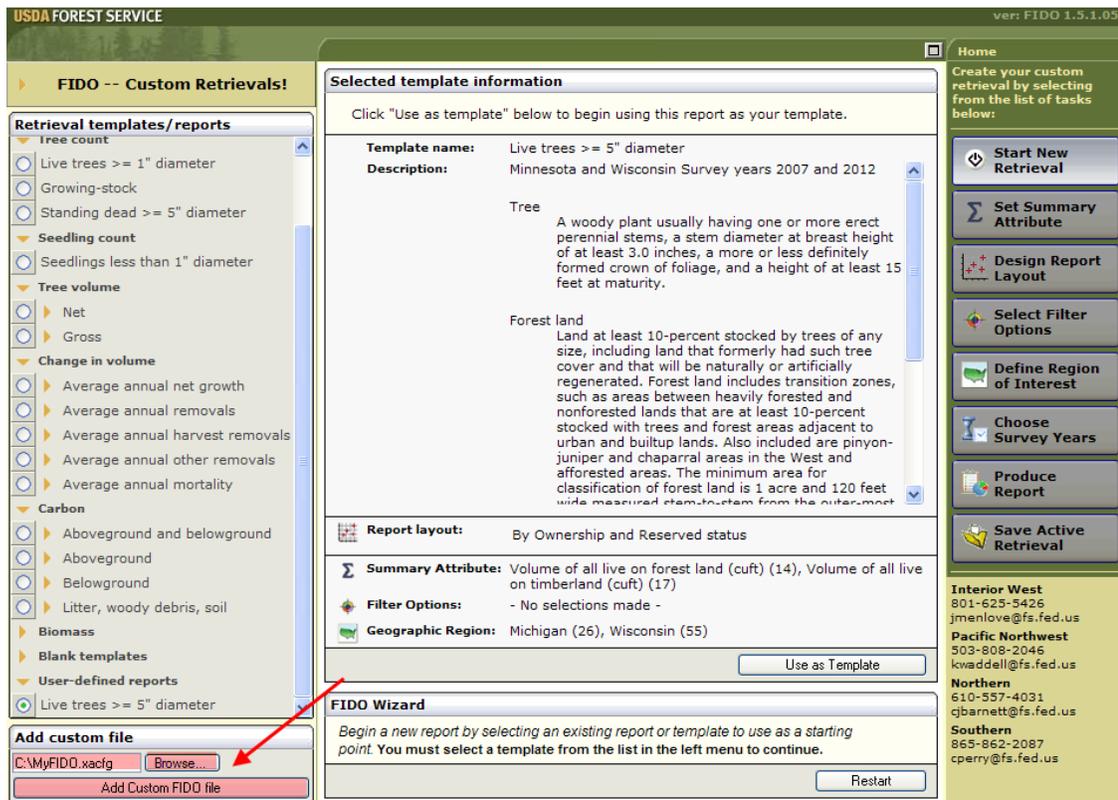
f. Click on **Save** to save the file on your PC (keep the default extension **xacfg**)



- g. To use the file again on another FIDO session, browse for the file and upload it to FIDO. To simulate a new session, use the **Restart** option to close your current FIDO session (if you open a new browser and open FIDO, it will return to your current active session). Click on **Restart**, click **OK** for the warning.



- h. Click on the **Browse** button, find the file, and then click on the **Add Custom FIDO file** button. Your report appears in the list of templates that can be used as is, modified, or removed.



- i. Within a FIDO session you can accumulate many reports. For later use, each report must be saved in the current session (step 1) and then many reports can be saved in the configuration file at one time (step 2).

9. Filter Options

- a. Reports can be further refined to include only selected attributes. FIDO will skip over the **Filter Options** menu because it isn't required for a report (such as **Region of Interest** and **Survey Years**). Filters can be selected anytime during the report making process (e.g. from the **Define Region of Interest** menu, you can click on **Select Filter Options** and select filters before selecting the sample area).
- b. Click on **Select Filter Options** to view the list of filters.

The screenshot displays the USDA Forest Service FIDO software interface. The main window title is "USDA FOREST SERVICE" and the version is "ver: FIDO 1.5.1.05". The central panel shows the "Select filter options" wizard for the report "Net volume of live trees (at least 5 inches d.b.h./d.r.c.), in cubic feet by Ownership and Reserved status".

Filter options menu (left):

- Filter options
 - Plot attributes
 - Land (condition) attributes
 - Tree attributes (highlighted with a red arrow)

Select filter options wizard (center):

You can limit the data used to generate your report by selecting from the list of filter options on the left. Each option has subcategories. You may select as many as you wish.

Filters:

- No filters

FIDO Wizard (bottom center):

You can choose to filter your report data on virtually any field. Open the various filtering options by clicking on the left-hand menu items. You do not need to specify a filter.

- Summary Attribute:** Volume of all live on forest land (cuft) (14), Volume of all live on timberland (cuft) (17)
- Report Layout:** Table break: U.S. States (plot.statecd)
Row break: Ownership (cond.owncd)
Column break: Reserved status (cond.reservcd)
- Filter Options:** - No selections made -
- Area of Interest:** Michigan (26), Wisconsin (55)
- Survey Years:** MICHIGAN 2012: 2008-2012: CURRENT AREA, CURRENT VOLUME, WISCONSIN 2012: 2008-2012: CURRENT AREA, CURRENT VOLUME, MICHIGAN 2007: 2003-2007: CURRENT AREA, CURRENT VOLUME, WISCONSIN 2007: 2003-2007: CURRENT AREA, CURRENT VOLUME

Task List (right):

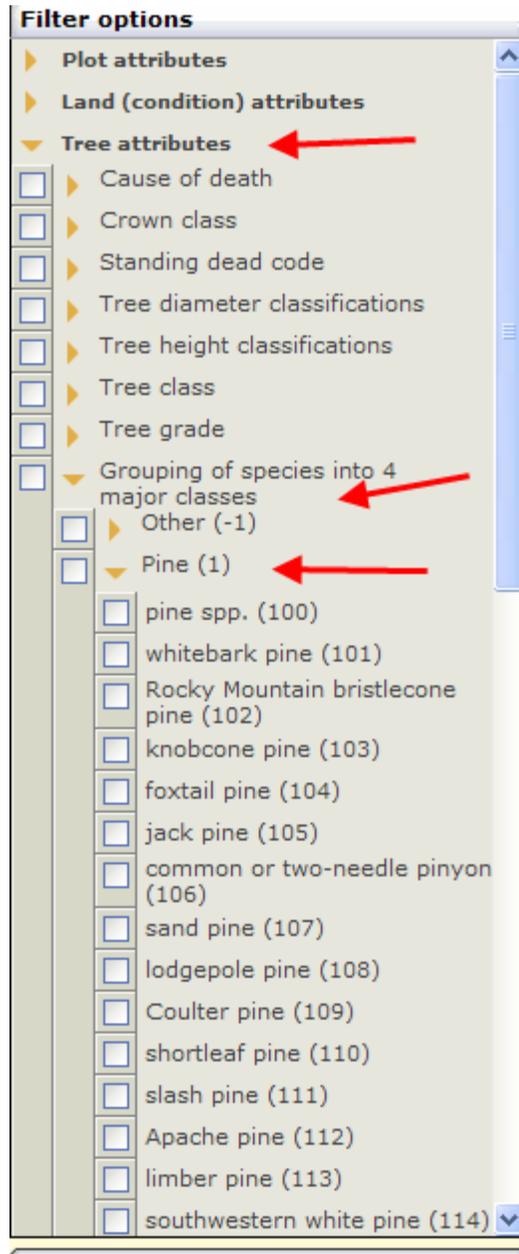
- Start New Retrieval
- Set Summary Attribute
- Design Report Layout
- Select Filter Options (highlighted with a red arrow)
- Define Region of Interest
- Choose Survey Years
- Produce Report
- Save Active Retrieval

Contact Information (bottom right):

- Interior West:** 801-625-5426, jmenlove@fs.fed.us
- Pacific Northwest:** 503-808-2046, kwaddell@fs.fed.us
- Northern:** 610-557-4031, cjbarrett@fs.fed.us
- Southern:** 865-862-2087, cperry@fs.fed.us

- c. **Click on the main filter categories to view the subcategories.** You know you are at the bottom of a category when you no longer see the orange triangle pointing to the right of the attribute name.

Note: To filter by individual species, select **Tree attributes - Grouping of species into 4 major classes**, and then select one of the major classes to find the individual species.



Customer Service

For assistance with your reports or data questions please contact the support person for your region.

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If there are problems with any online tool not responding please contact the FS Customer Help Desk using one of the following: <http://fswweb.chd.fs.fed.us> , 1-866-945-1354, or TTY 1-800-877-8339.