



# What's new for SnapMaps 16.0

Wisconsin Nutrient Management Implementation Workshops

James Beaudoin

SNAPMAPS



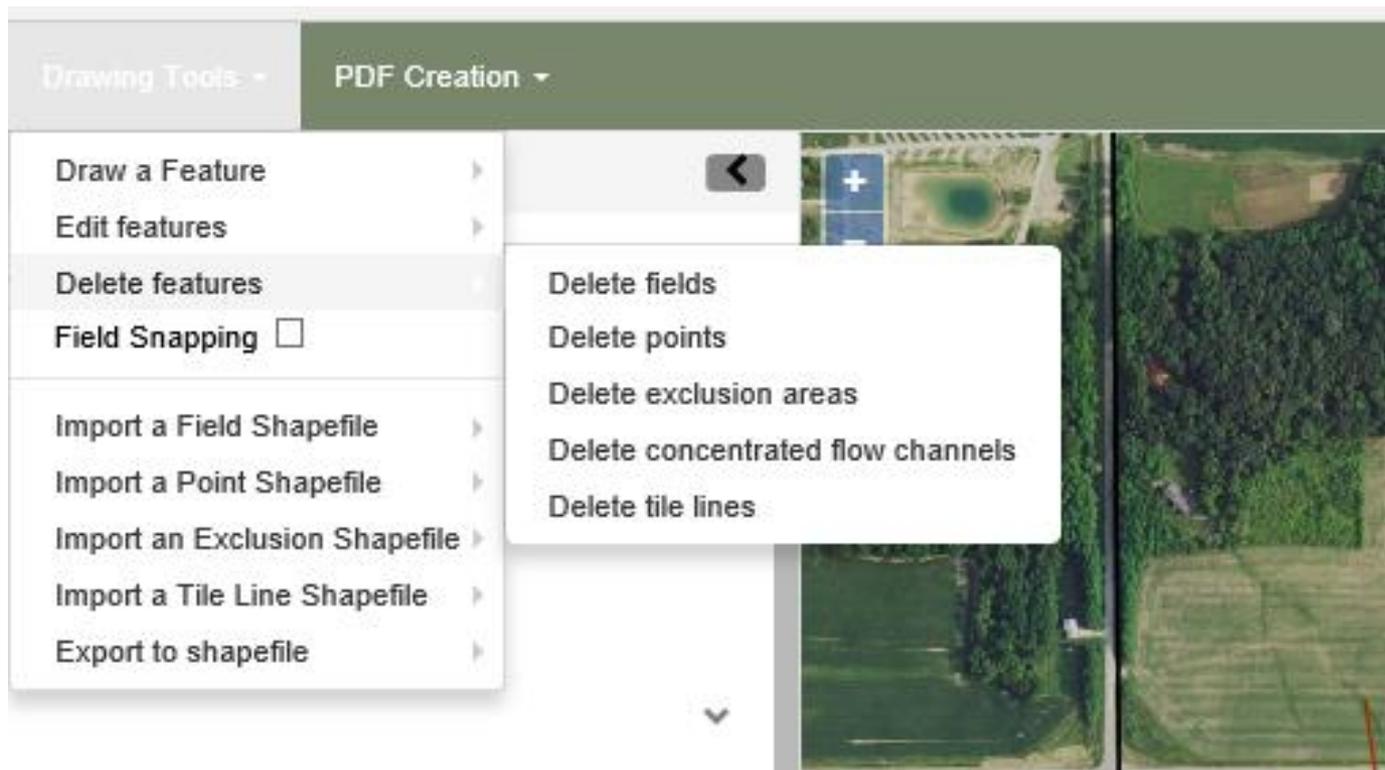
SNAPMAPS, PUTTING THE WHERE INTO SNAPPLUS.

# SnapMaps 16.0 Changes

James Beaudoin

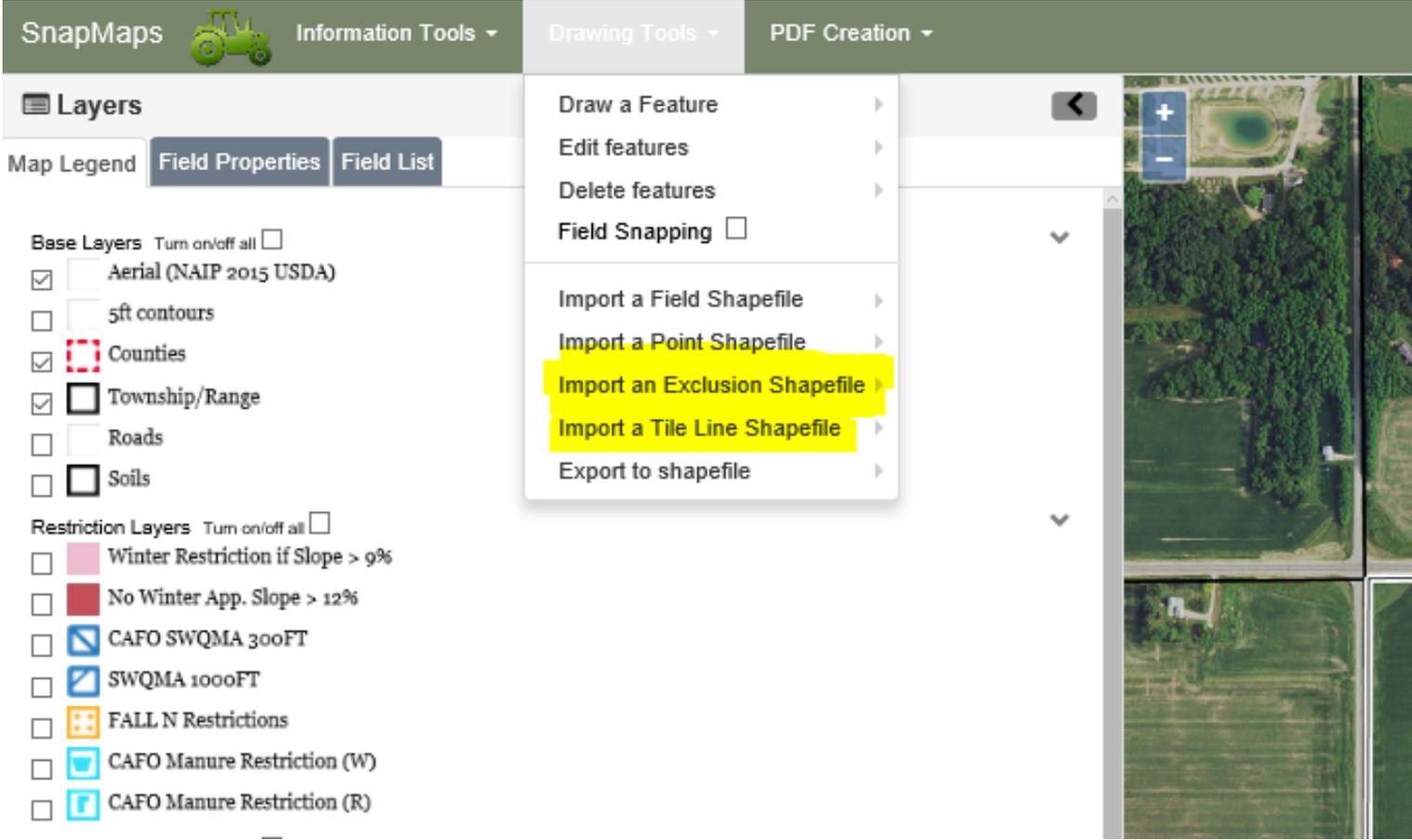
# Minor updates

Reorganized menus and tools for better navigation.



# Minor updates

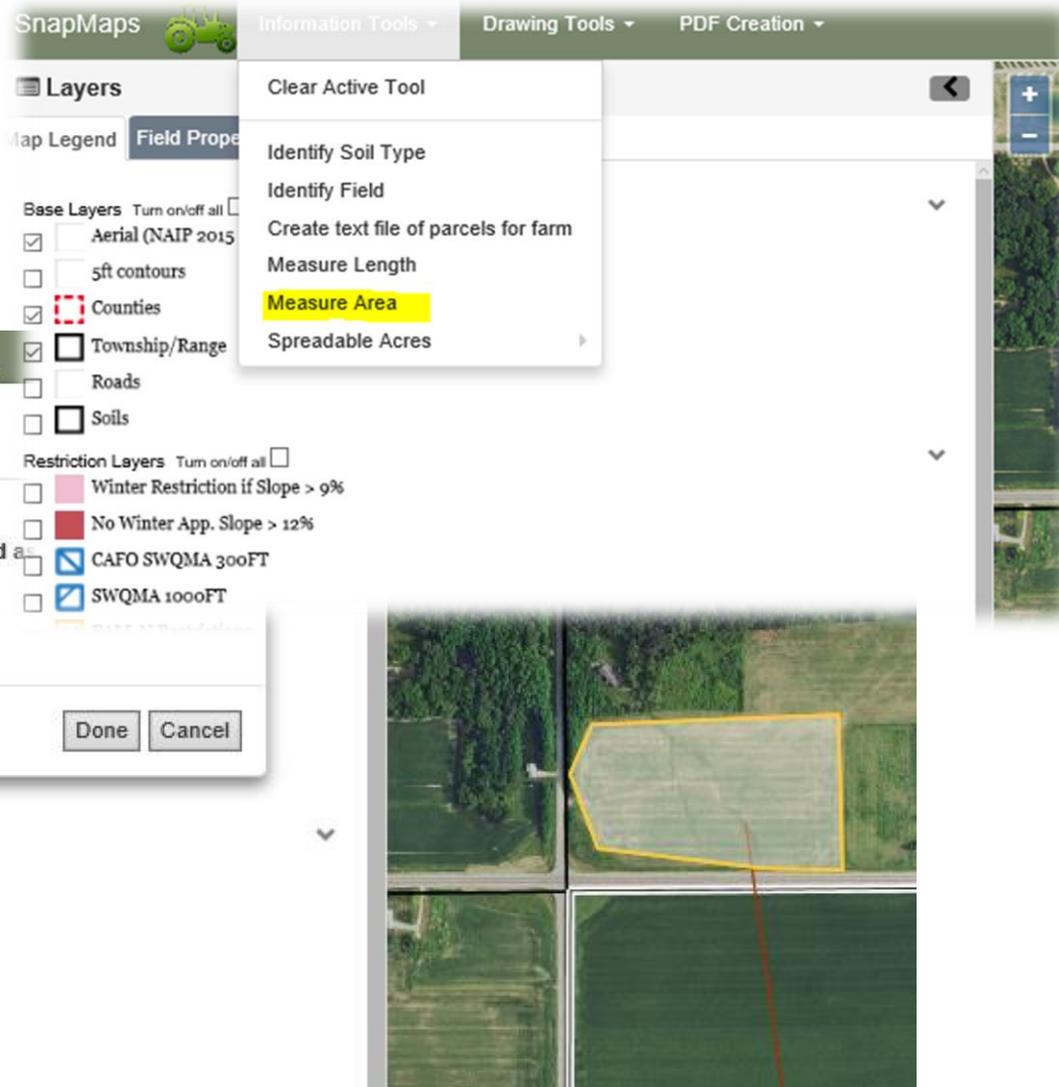
Import shapefiles for tile lines and exclusion areas.



The screenshot displays the SnapMaps web application interface. The top navigation bar includes 'SnapMaps' (with a tractor icon), 'Information Tools', 'Drawing Tools', and 'PDF Creation'. The 'Layers' panel on the left is active, showing 'Map Legend', 'Field Properties', and 'Field List' tabs. Under 'Base Layers', there are checkboxes for 'Aerial (NAIP 2015 USDA)', '5ft contours', 'Counties', 'Township/Range', 'Roads', and 'Soils'. Under 'Restriction Layers', there are checkboxes for 'Winter Restriction if Slope > 9%', 'No Winter App. Slope > 12%', 'CAFO SWQMA 300FT', 'SWQMA 1000FT', 'FALL N Restrictions', 'CAFO Manure Restriction (W)', and 'CAFO Manure Restriction (R)'. The 'Drawing Tools' dropdown menu is open, showing options: 'Draw a Feature', 'Edit features', 'Delete features', 'Field Snapping', 'Import a Field Shapefile', 'Import a Point Shapefile', 'Import an Exclusion Shapefile', 'Import a Tile Line Shapefile', and 'Export to shapefile'. The 'Import an Exclusion Shapefile' and 'Import a Tile Line Shapefile' options are highlighted in yellow. The background shows an aerial map of a rural area with a pond and fields.

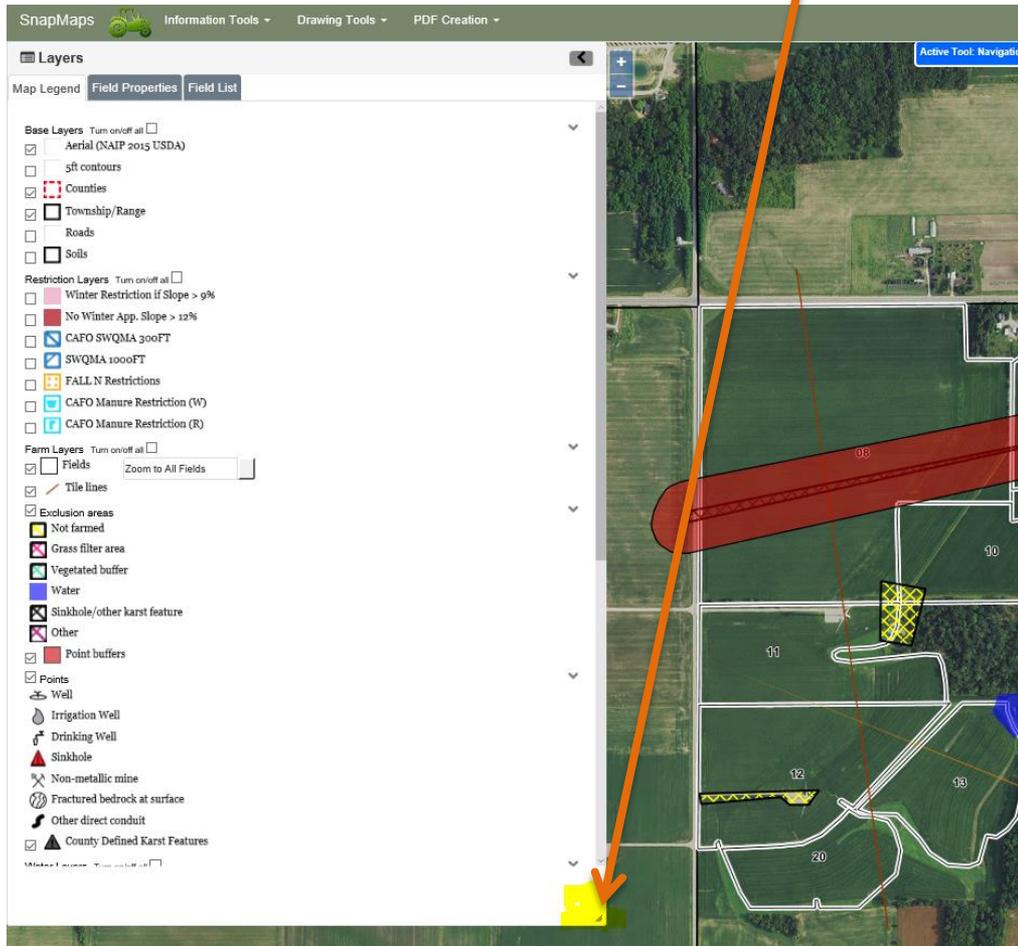
# Minor updates

Added a measure area tool.



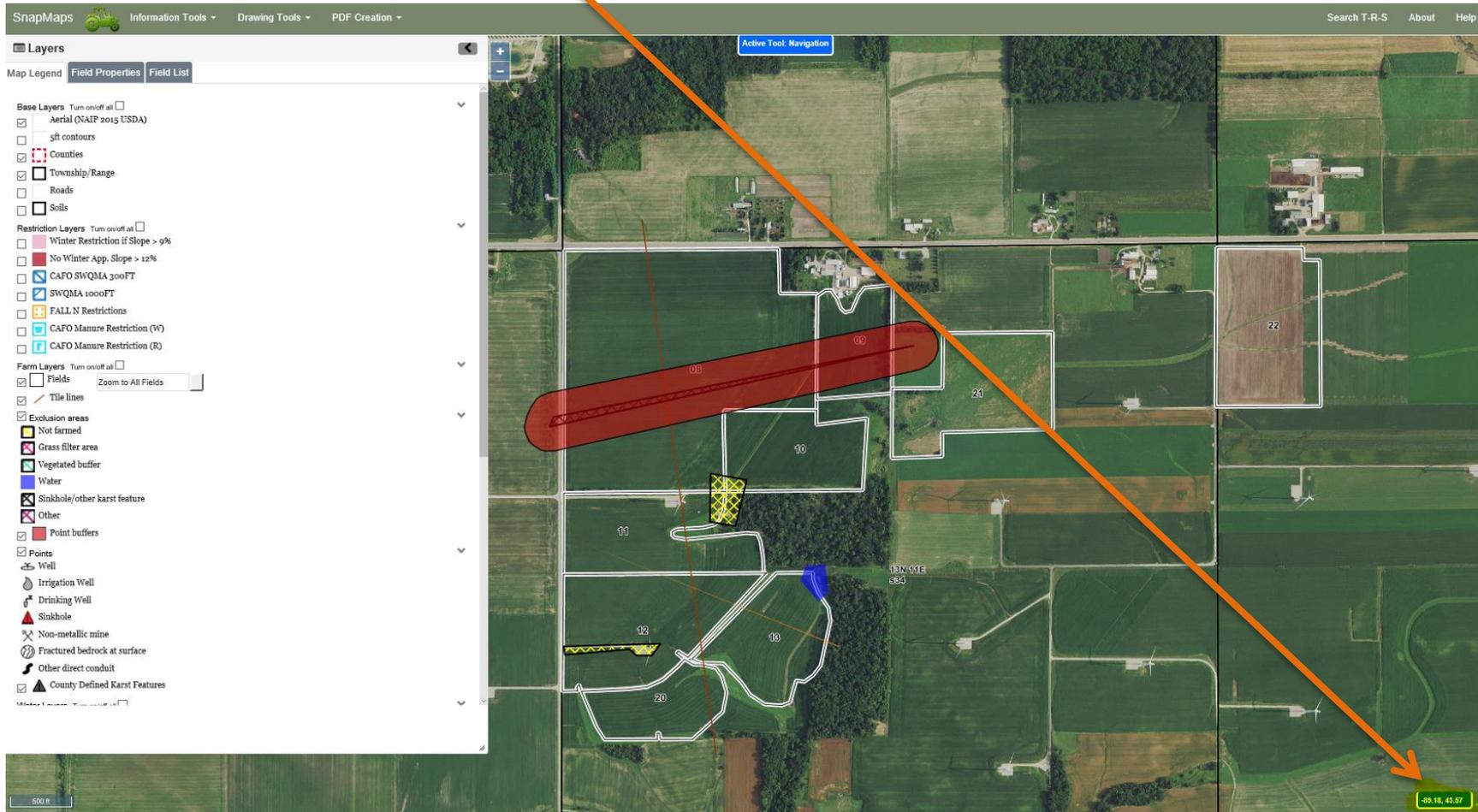
# Minor updates

Ability to resize/move layers display window.



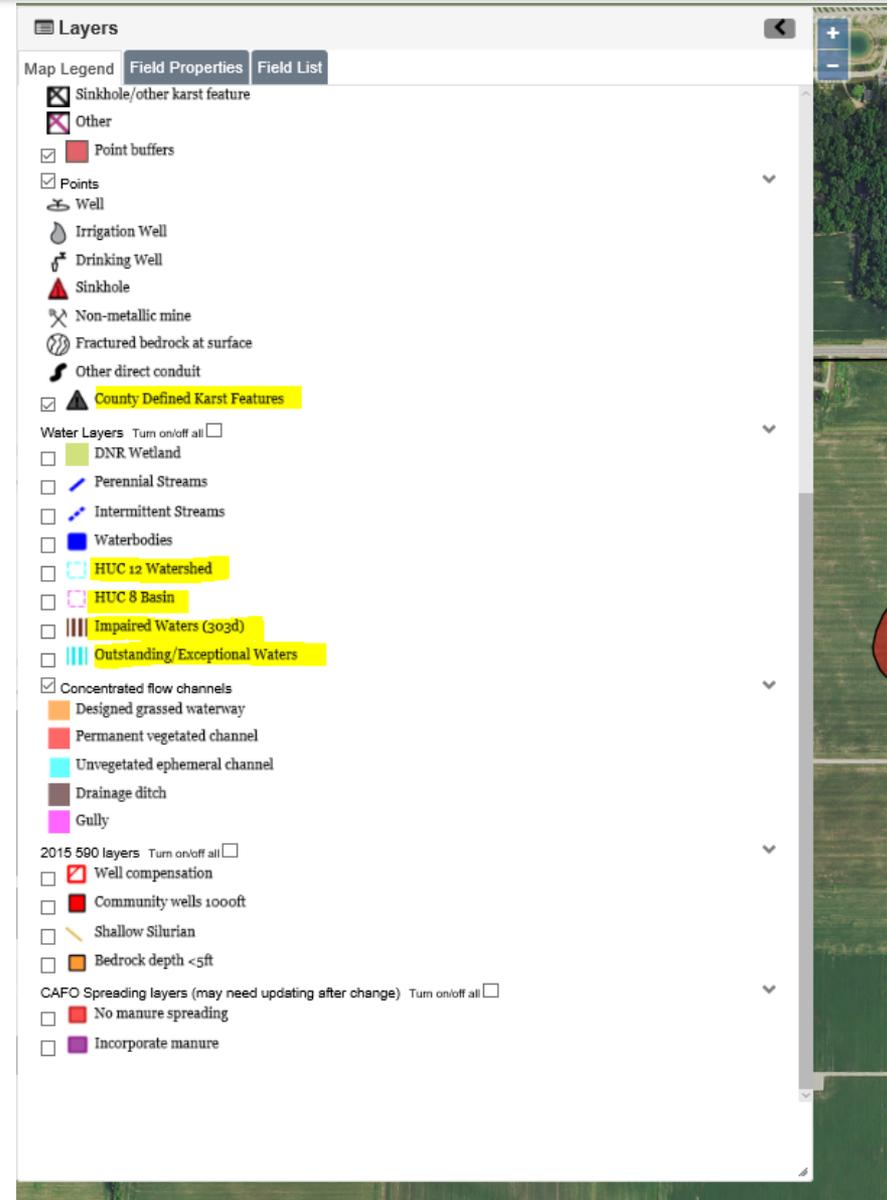
# Minor updates

Lat/long at the bottom of map window.



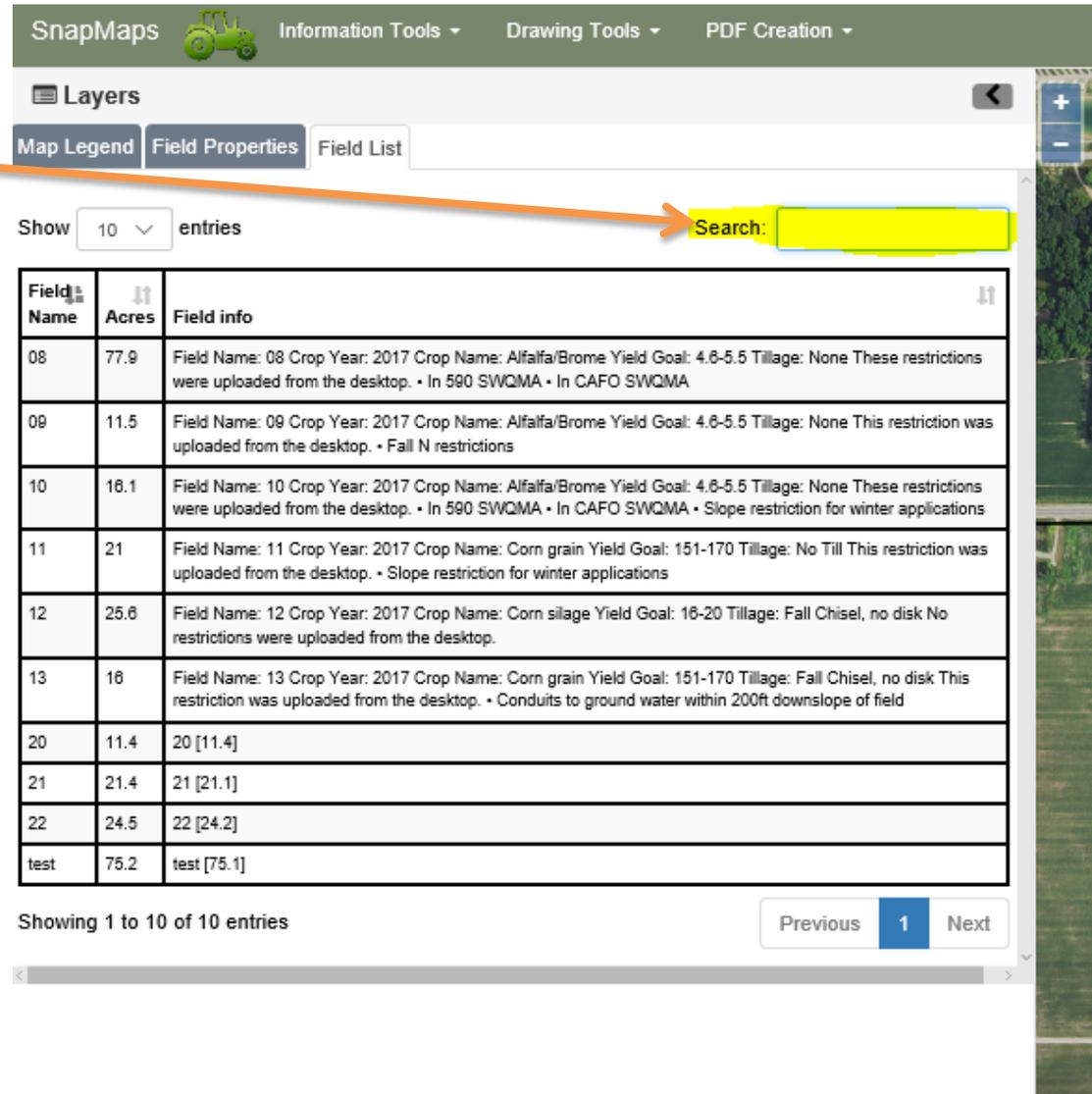
# Minor updates

New layers added such as HUC 8 and HUC 12 (basins and watersheds), impaired waters, outstanding/exceptional waters, county defined karst features (Brown, Kewaunee, Manitowoc counties only) .



# Minor updates

Field list view. Search by keyword.



SnapMaps  Information Tools ▾ Drawing Tools ▾ PDF Creation ▾

Layers ◀ +

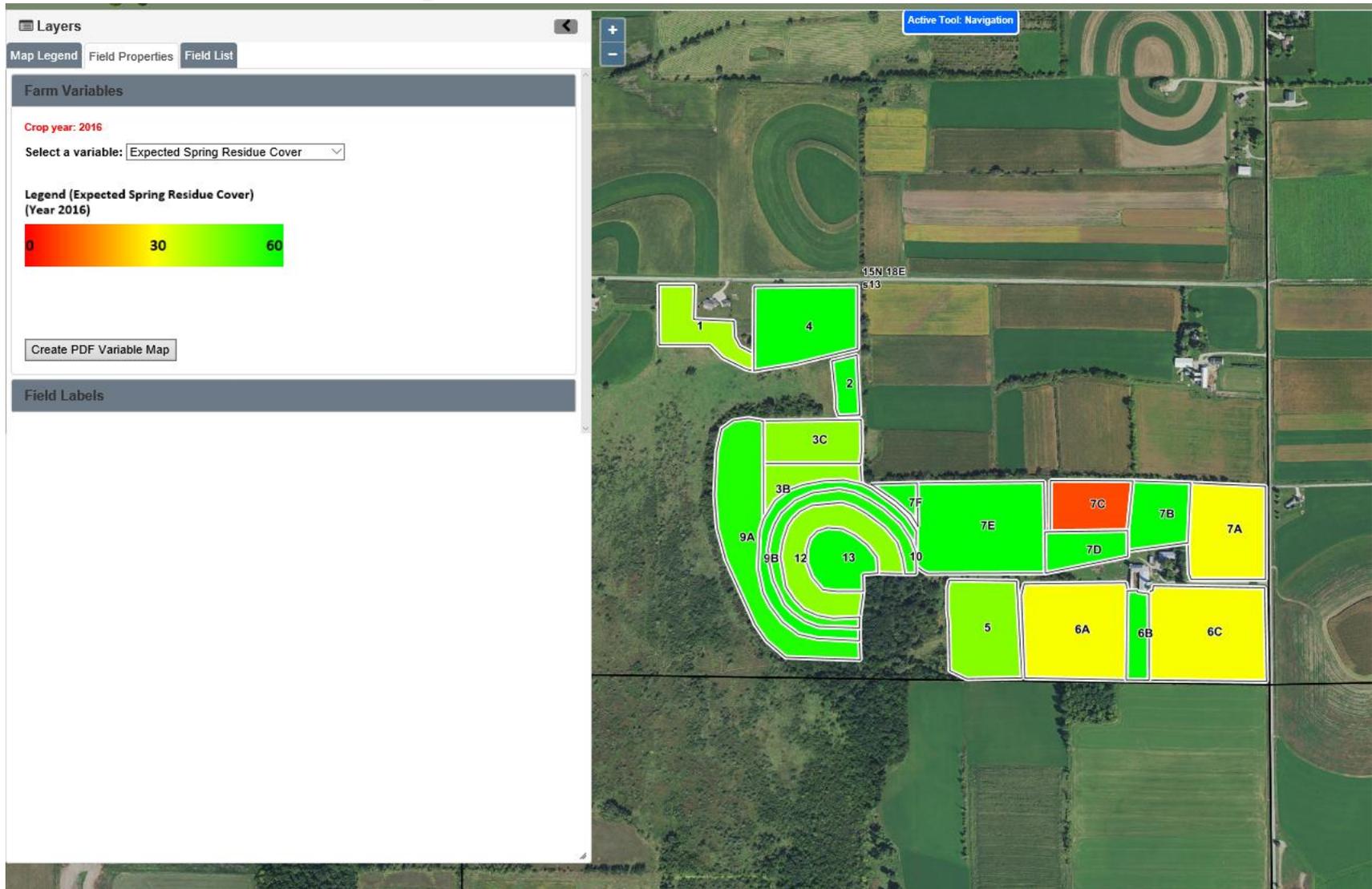
Map Legend **Field Properties** Field List

Show  entries Search:

Field Name	Acres	Field info
08	77.9	Field Name: 08 Crop Year: 2017 Crop Name: Alfalfa/Brome Yield Goal: 4.6-5.5 Tillage: None These restrictions were uploaded from the desktop. • In 590 SWQMA • In CAFO SWQMA
09	11.5	Field Name: 09 Crop Year: 2017 Crop Name: Alfalfa/Brome Yield Goal: 4.6-5.5 Tillage: None This restriction was uploaded from the desktop. • Fall N restrictions
10	16.1	Field Name: 10 Crop Year: 2017 Crop Name: Alfalfa/Brome Yield Goal: 4.6-5.5 Tillage: None These restrictions were uploaded from the desktop. • In 590 SWQMA • In CAFO SWQMA • Slope restriction for winter applications
11	21	Field Name: 11 Crop Year: 2017 Crop Name: Corn grain Yield Goal: 151-170 Tillage: No Till This restriction was uploaded from the desktop. • Slope restriction for winter applications
12	25.6	Field Name: 12 Crop Year: 2017 Crop Name: Corn silage Yield Goal: 16-20 Tillage: Fall Chisel, no disk No restrictions were uploaded from the desktop.
13	16	Field Name: 13 Crop Year: 2017 Crop Name: Corn grain Yield Goal: 151-170 Tillage: Fall Chisel, no disk This restriction was uploaded from the desktop. • Conduits to ground water within 200ft downslope of field
20	11.4	20 [11.4]
21	21.4	21 [21.1]
22	24.5	22 [24.2]
test	75.2	test [75.1]

Showing 1 to 10 of 10 entries Previous **1** Next

# Thematic maps



# Thematic maps

Limited set of variables to map.

**Farm Variables**

**Crop year: 2016**

Select a variable: --Select a Variable--  
 Rotational Soil Conditioning Index  
 Rotation Avg P Index  
 Rotation Avg Soil loss  
 Rotational P2O5 Balance  
 Rotational K2O Balance  
 On contour  
 Is Irrigated  
 Too few soil samples  
 Soil test too old  
 N: Over (+)/Under (-) adj UW rec  
 P2O5: Over (+)/Under (-) adj UW rec  
 K2O: Over (+)/Under (-) adj UW rec  
 Expected Spring Residue Cover  
 Soil Test P  
 Soil Test K  
 Soil pH

**Legend (Rotational Year 2016)**

-3

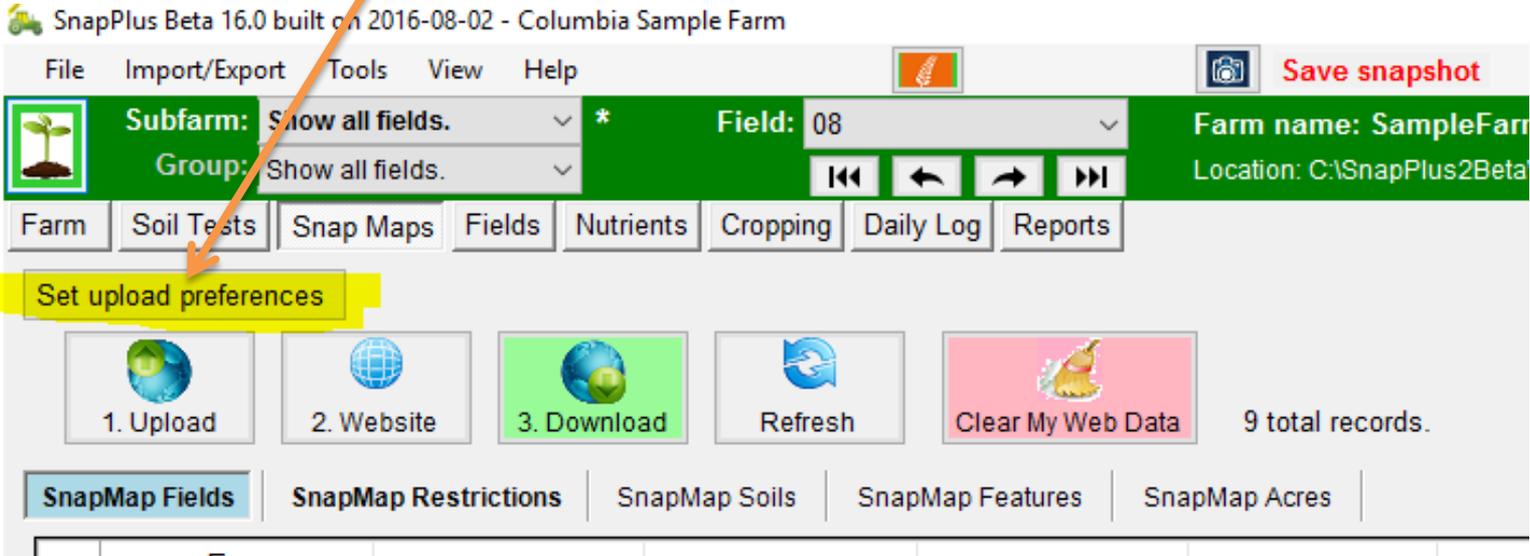
Create PDF Variable

**Field Labels**



# Thematic maps

You have to set your preferences and upload these data in order to use this tool.



SnapPlus Beta 16.0 built on 2016-08-02 - Columbia Sample Farm

File Import/Export Tools View Help  Save snapshot

 Subfarm: Show all fields. \* Field: 08 Farm name: SampleFarm  
Group: Show all fields. Location: C:\SnapPlus2Beta

Farm Soil Tests Snap Maps Fields Nutrients Cropping Daily Log Reports

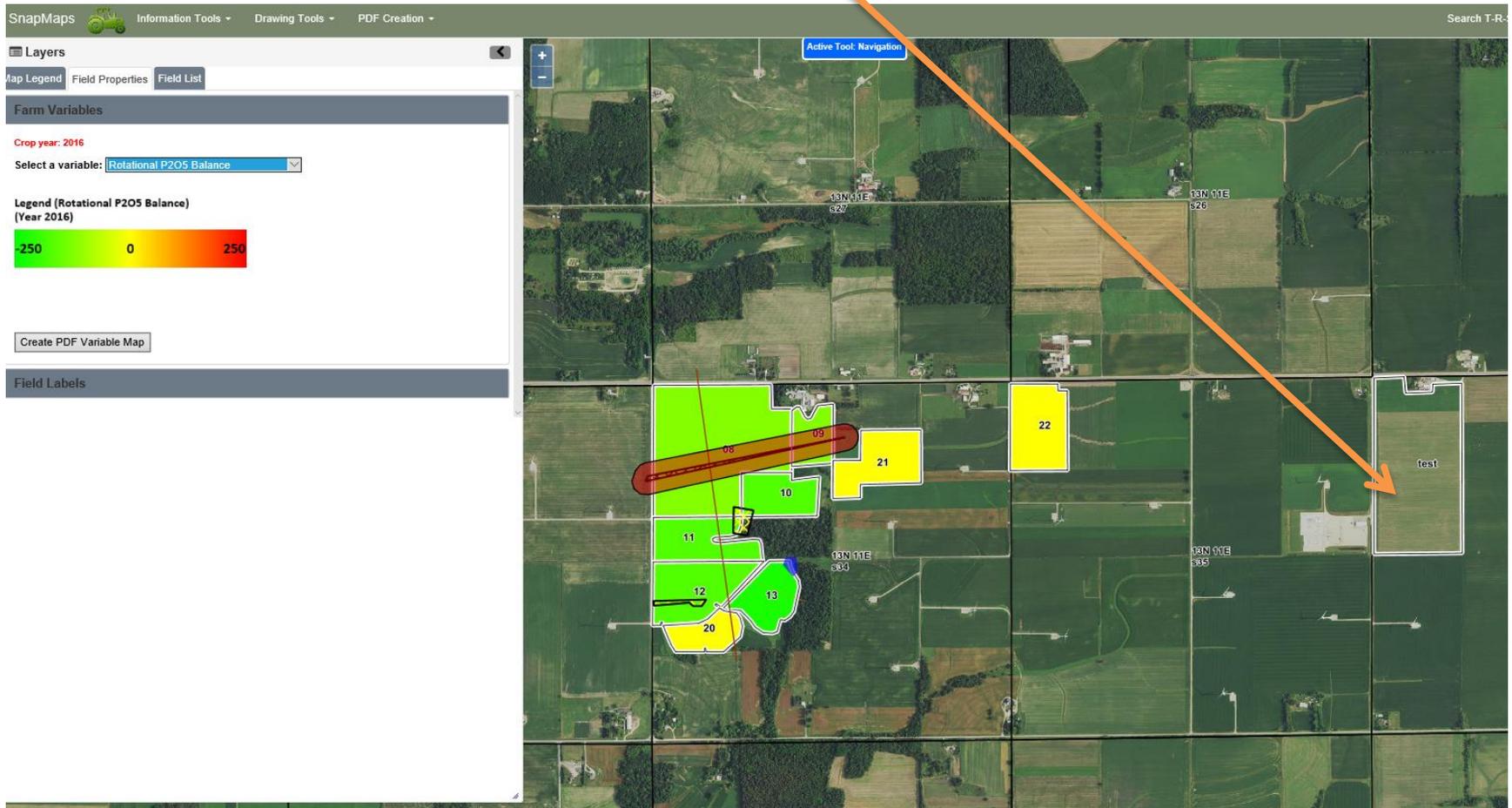
Set upload preferences

 1. Upload  2. Website  3. Download  Refresh  Clear My Web Data 9 total records.

SnapMap Fields SnapMap Restrictions SnapMap Soils SnapMap Features SnapMap Acres

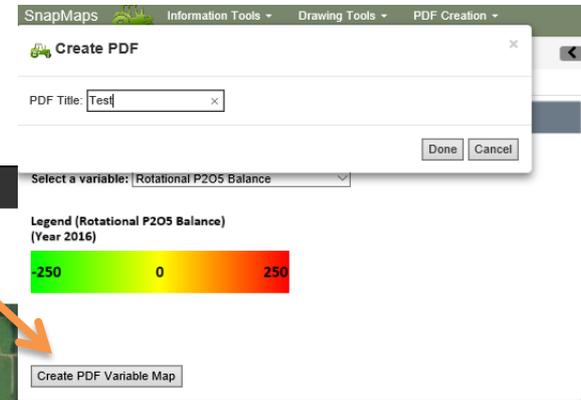
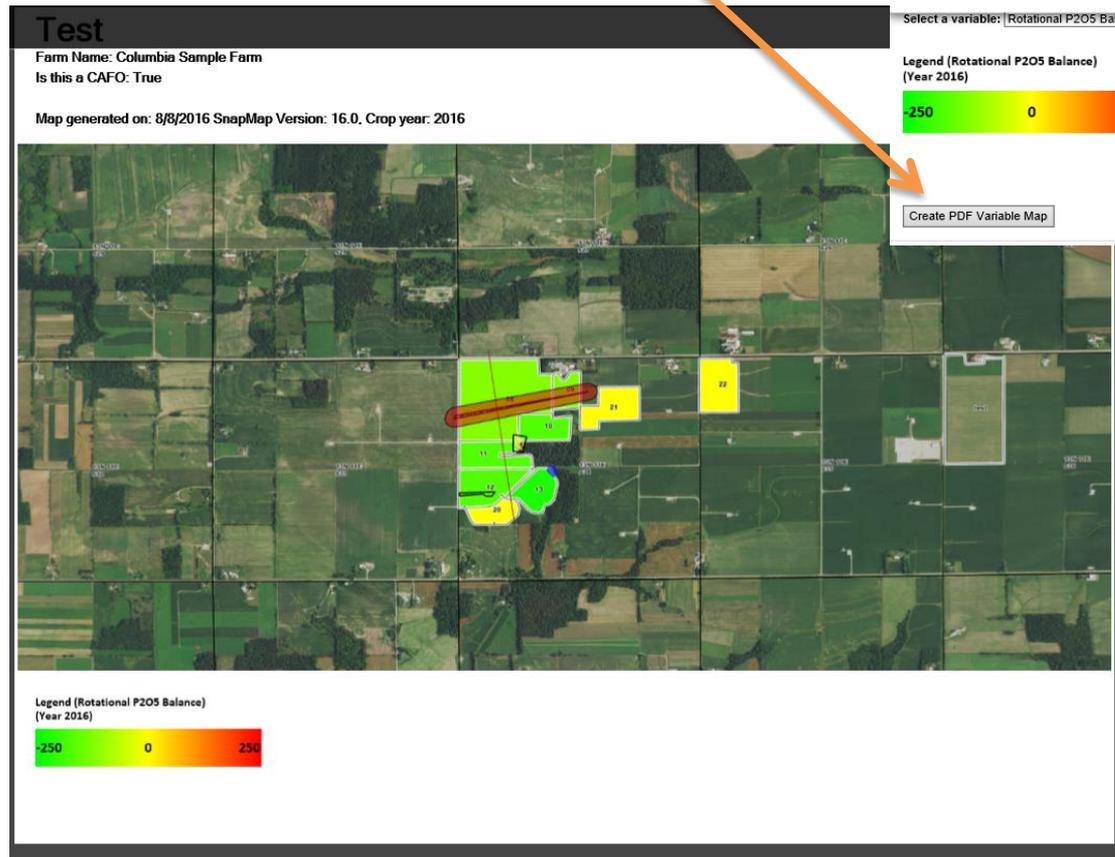
# Thematic maps

No fill for a field mean no data is available for that field.

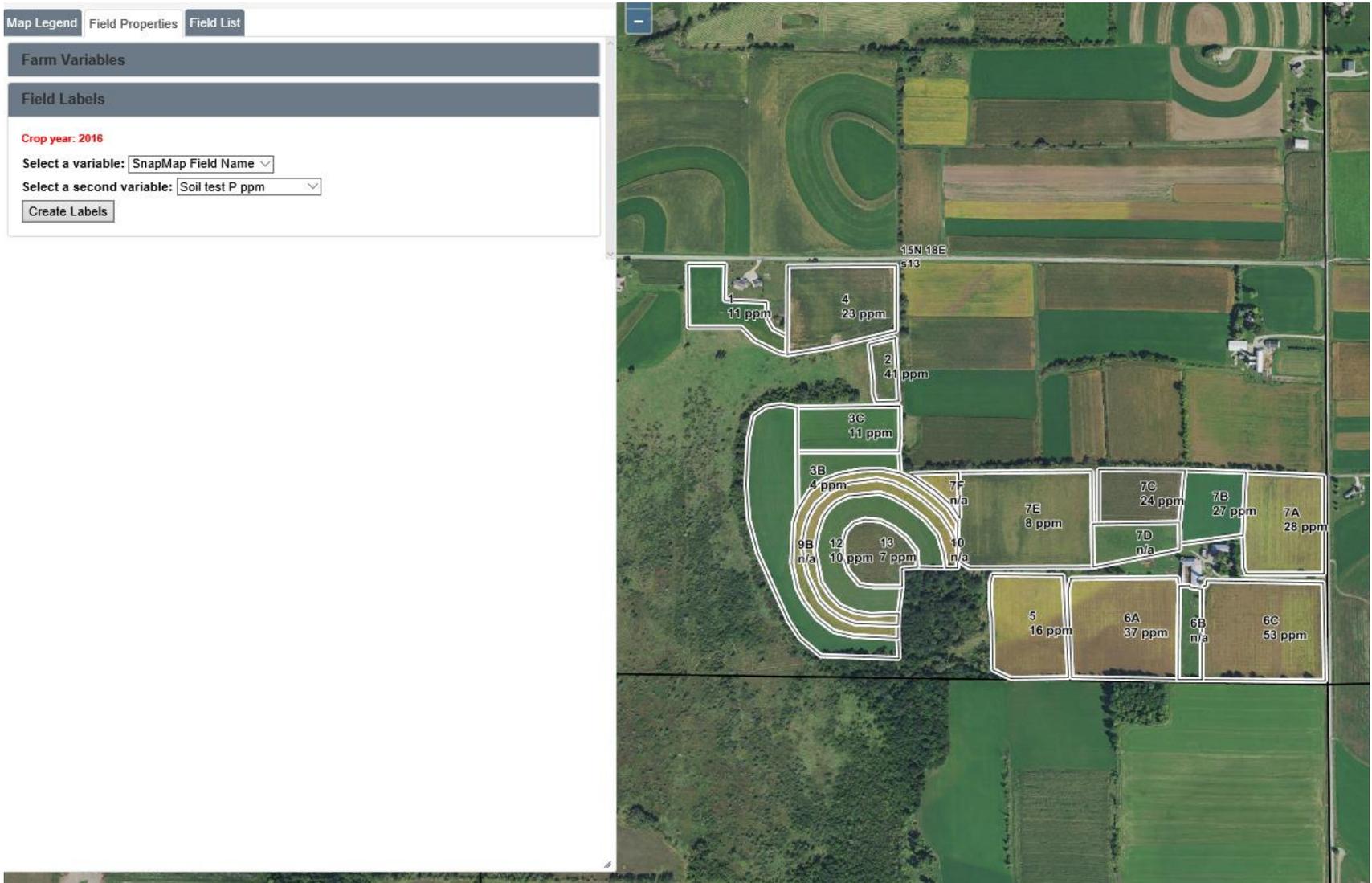


# Thematic maps

Ability to create a PDF map of thematic maps.

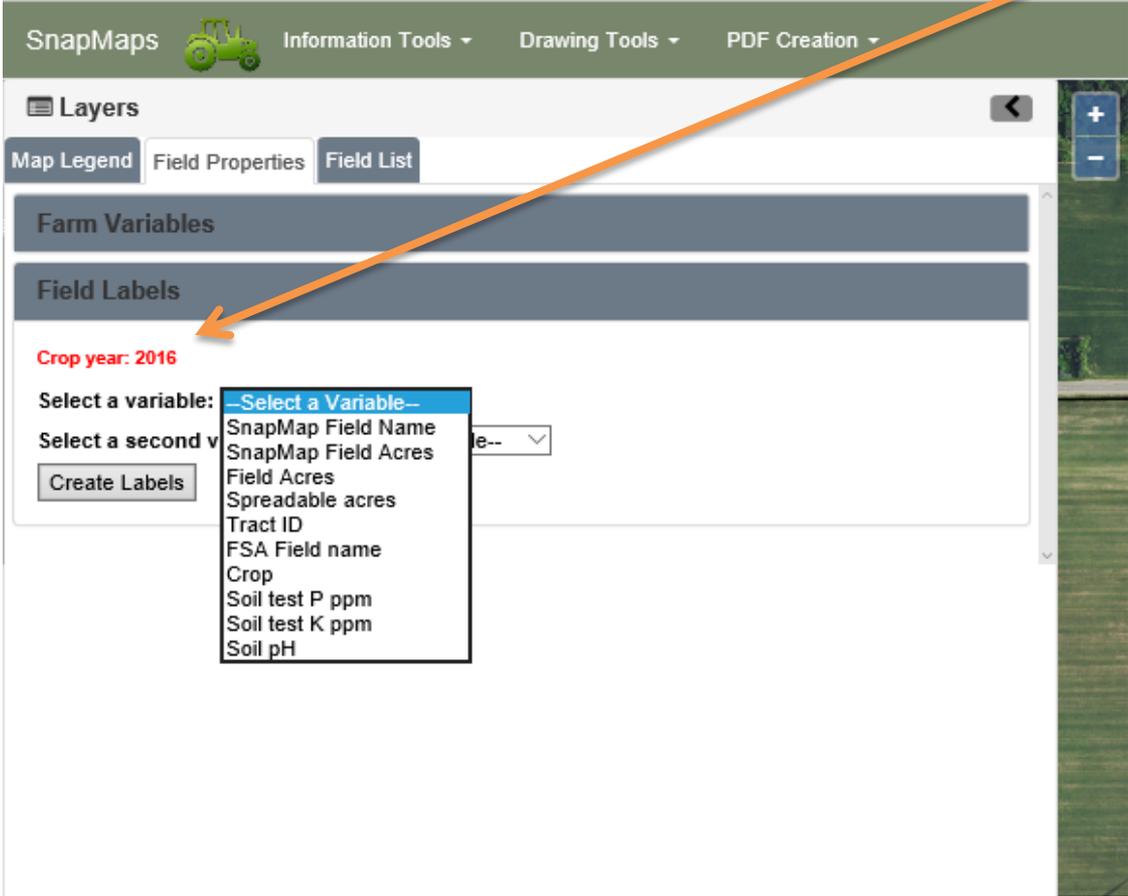


# Customizable field labels



# Customizable field labels

Limited set of variables to use. Only one year of data can be uploaded at a time.



The screenshot shows the SnapMaps web application interface. At the top, there is a navigation bar with 'SnapMaps' and a tractor icon, followed by 'Information Tools', 'Drawing Tools', and 'PDF Creation'. Below this is a 'Layers' panel with tabs for 'Map Legend', 'Field Properties', and 'Field List'. The 'Field Labels' section is highlighted, showing a 'Crop year: 2016' label. Below this, there are two dropdown menus: 'Select a variable:' and 'Select a second variable:'. A 'Create Labels' button is located below the dropdowns. A dropdown menu is open, showing a list of variables: '--Select a Variable--', 'SnapMap Field Name', 'SnapMap Field Acres', 'Field Acres', 'Spreadable acres', 'Tract ID', 'FSA Field name', 'Crop', 'Soil test P ppm', 'Soil test K ppm', and 'Soil pH'. An orange arrow points from the top right towards the 'Field Labels' section.

# Customizable field labels

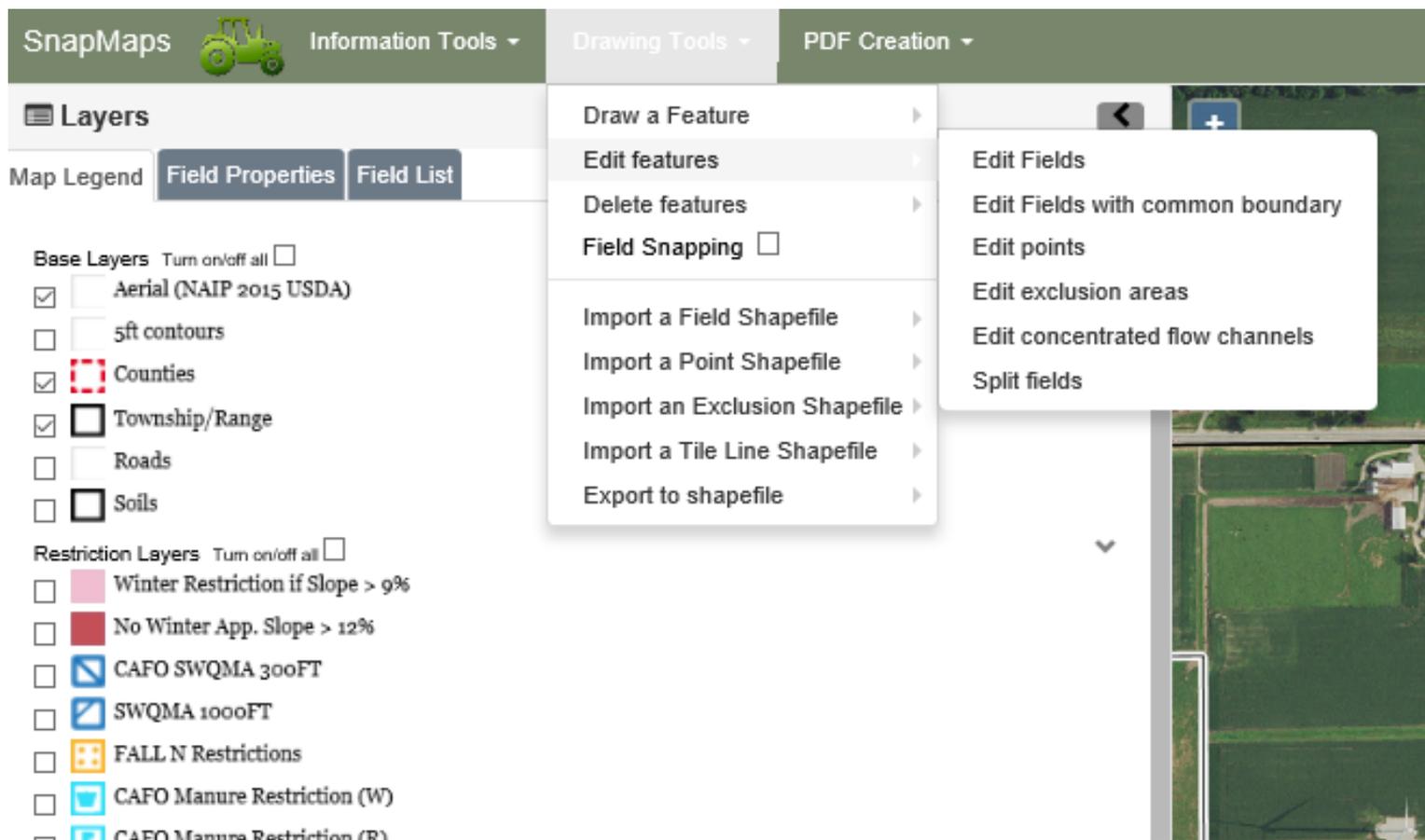
N/A means no data is available for that field.

Multiple labels are put on separate lines.



# Drawing/Editing features

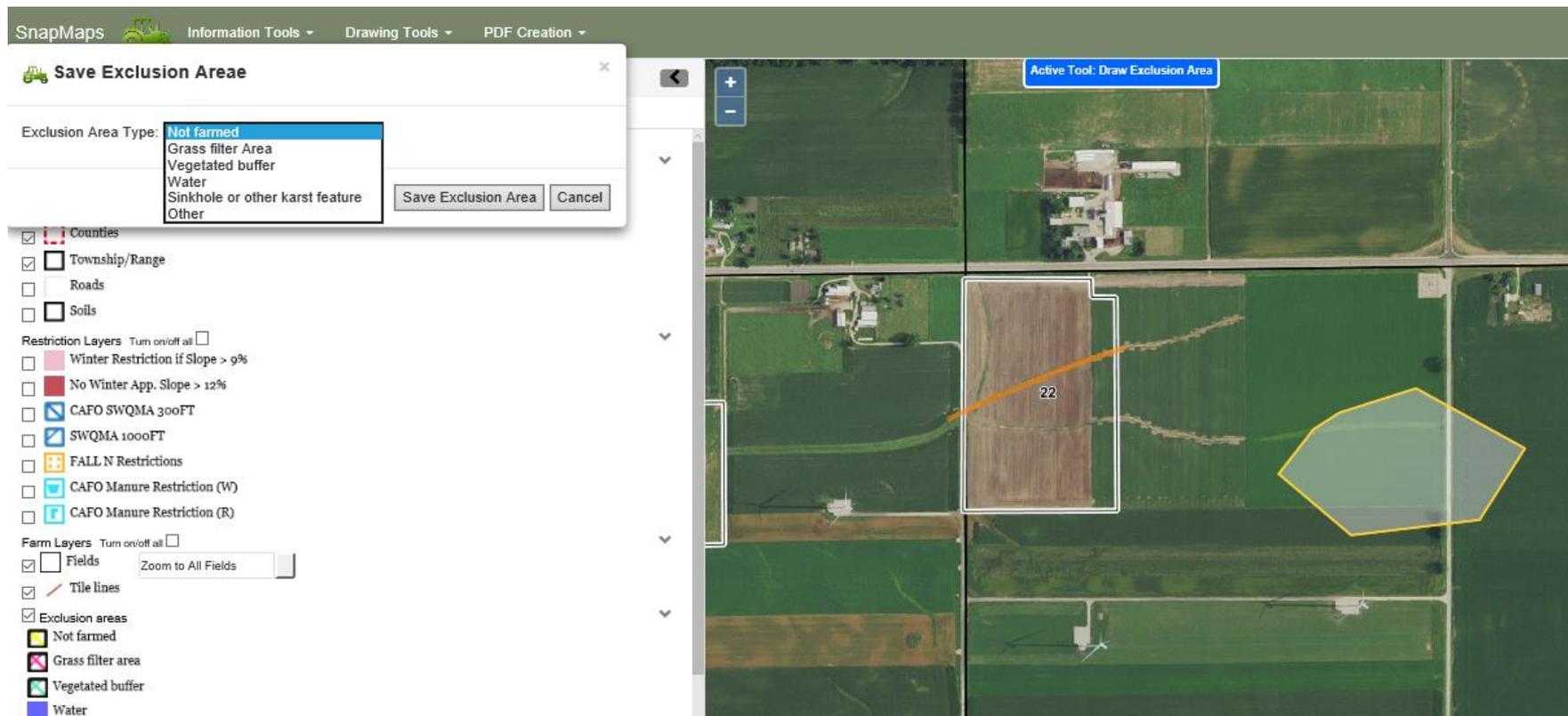
Ability to edit most features you can draw. (exception tile lines)



The screenshot displays the SnapMaps web application interface. At the top, there are navigation tabs: SnapMaps (with a tractor icon), Information Tools, Drawing Tools, and PDF Creation. Below the tabs is a Layers panel with a 'Layers' header and sub-sections for 'Map Legend', 'Field Properties', and 'Field List'. The 'Base Layers' section includes checkboxes for Aerial (NAIP 2015 USDA), 5ft contours, Counties, Township/Range, Roads, and Soils. The 'Restriction Layers' section includes checkboxes for Winter Restriction if Slope > 9%, No Winter App. Slope > 12%, CAFO SWQMA 300FT, SWQMA 1000FT, FALL N Restrictions, CAFO Manure Restriction (W), and CAFO Manure Restriction (R). A 'Drawing Tools' dropdown menu is open, showing options: Draw a Feature, Edit features, Delete features, Field Snapping, Import a Field Shapefile, Import a Point Shapefile, Import an Exclusion Shapefile, Import a Tile Line Shapefile, and Export to shapefile. A secondary dropdown menu is open under 'Edit features', listing: Edit Fields, Edit Fields with common boundary, Edit points, Edit exclusion areas, Edit concentrated flow channels, and Split fields. The background shows an aerial map of a rural area with a white boundary line overlaid on a field.

# Drawing/Editing features

Exclusion area categories redone.



The screenshot displays the SnapMaps interface. At the top, there are menu items: SnapMaps, Information Tools, Drawing Tools, and PDF Creation. A dialog box titled "Save Exclusion Area" is open, showing a dropdown menu for "Exclusion Area Type" with options: Not farmed (selected), Grass filter Area, Vegetated buffer, Water, Sinkhole or other karst feature, and Other. Below the dropdown are "Save Exclusion Area" and "Cancel" buttons.

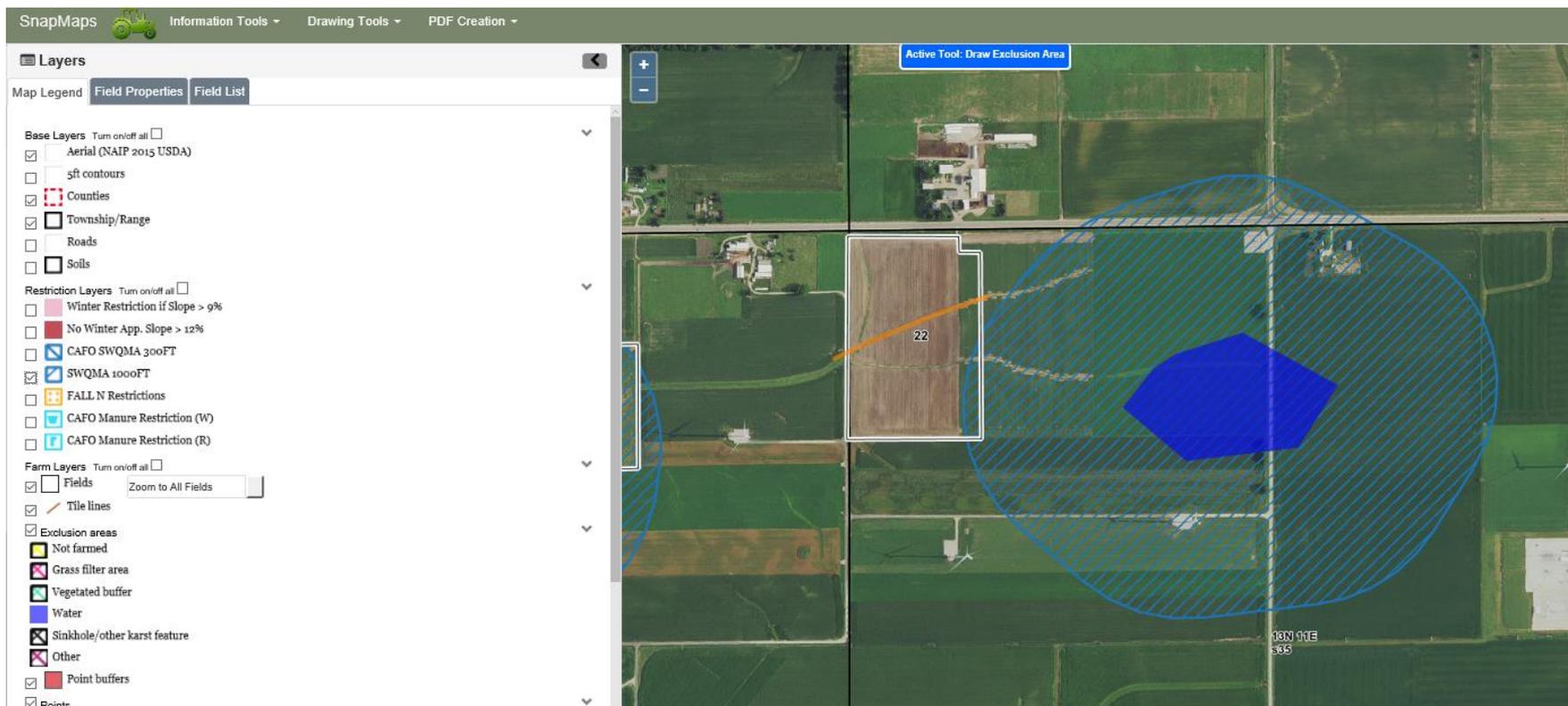
On the left side of the interface, there is a layer control panel with the following sections:

- Counties:**  Counties
- Township/Range:**  Township/Range
- Roads:**  Roads
- Soils:**  Soils
- Restriction Layers:** Turn on/off all 
  - Winter Restriction if Slope > 9%
  - No Winter App. Slope > 12%
  - CAFO SWQMA 300FT
  - SWQMA 1000FT
  - FALL N Restrictions
  - CAFO Manure Restriction (W)
  - CAFO Manure Restriction (R)
- Farm Layers:** Turn on/off all 
  - Fields
  - Tile lines
  - Exclusion areas
    - Not farmed
    - Grass filter area
    - Vegetated buffer
    - Water

The main map area shows an aerial view of a rural landscape. A blue box at the top right indicates "Active Tool: Draw Exclusion Area". A white outline on a brown field is labeled "22". A yellow polygon is drawn on a green field to the right. The interface includes navigation controls like a back arrow, zoom in (+) and zoom out (-) buttons, and a vertical scroll bar.

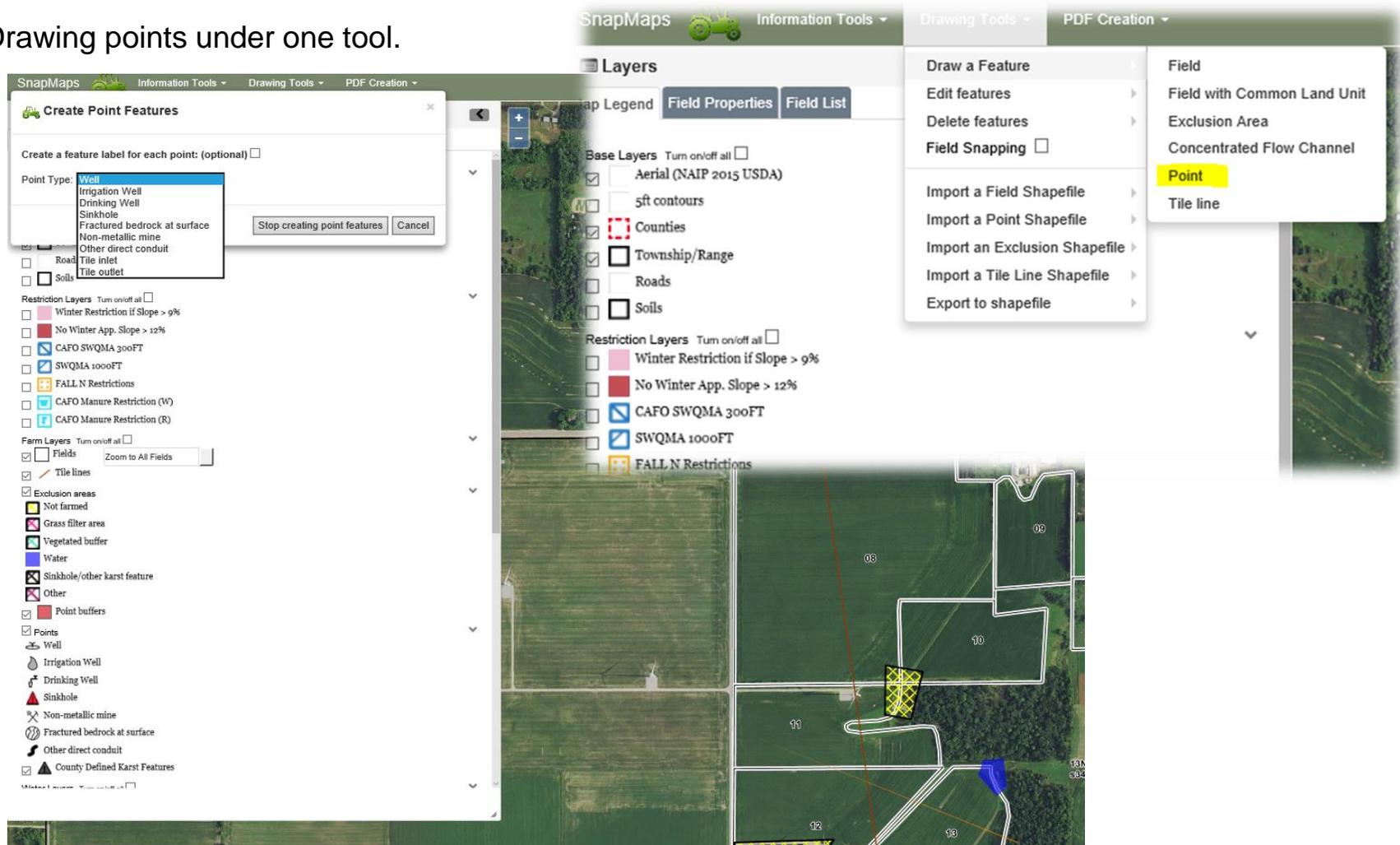
# Drawing/Editing features

Drawing a water body exclusion area automatically creates SWQMA.



# Drawing/Editing features

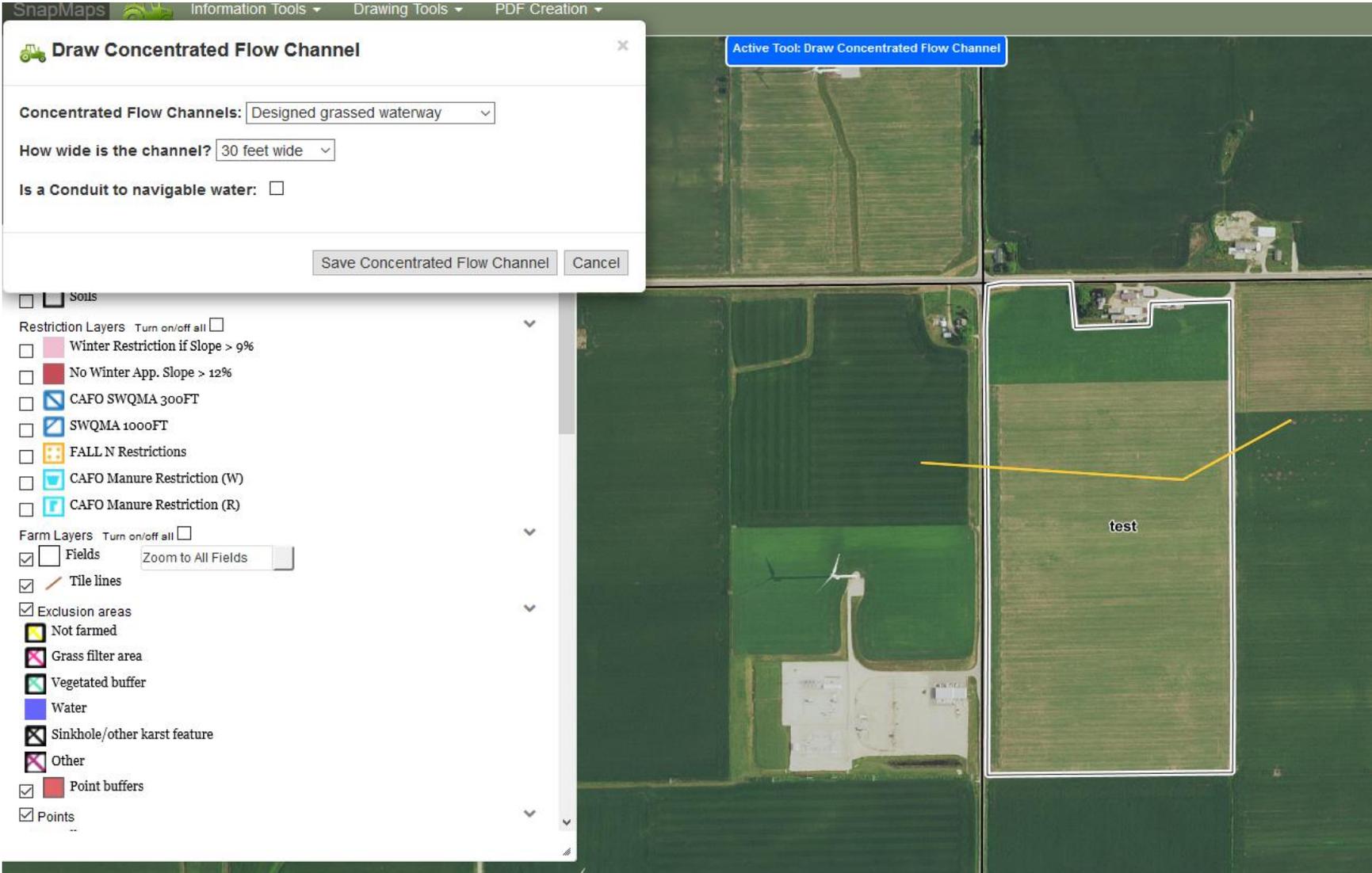
Drawing points under one tool.



The screenshot displays the SnapMaps software interface with several key components:

- Top Menu Bar:** SnapMaps, Information Tools, Drawing Tools, PDF Creation.
- Layers Panel:**
  - Map Legend: Field Properties, Field List
  - Base Layers: Aerial (NAIP 2015 USDA), 5ft contours, Counties, Township/Range, Roads, Soils.
  - Restriction Layers: Winter Restriction if Slope > 9%, No Winter App. Slope > 12%, CAFO SWQMA 300FT, SWQMA 1000FT, FALL N Restrictions, CAFO Manure Restriction (W), CAFO Manure Restriction (R).
  - Farm Layers: Fields, Tile lines, Exclusion areas (Not farmed, Grass filter area, Vegetated buffer, Water, Sinkhole/other karst feature, Other), Point buffers, Points (Well, Irrigation Well, Drinking Well, Sinkhole, Non-metallic mine, Fractured bedrock at surface, Other direct conduit, County Defined Karst Features).
- Create Point Features Dialog:**
  - Option: Create a feature label for each point: (optional)
  - Point Type: Well (selected), Irrigation Well, Drinking Well, Sinkhole, Fractured bedrock at surface, Non-metallic mine, Other direct conduit, Road, Tile inlet, Tile outlet, Soils.
  - Buttons: Stop creating point features, Cancel.
- Field Properties Panel:**
  - Draw a Feature: Field, Field with Common Land Unit, Exclusion Area, Concentrated Flow Channel, **Point**, Tile line.
  - Edit features
  - Delete features
  - Field Snapping
  - Import a Field Shapefile
  - Import a Point Shapefile
  - Import an Exclusion Shapefile
  - Import a Tile Line Shapefile
  - Export to shapefile
- Main Map:** Aerial view of agricultural fields with overlaid white field boundaries and various colored overlays (yellow, blue, red) representing different features and restrictions.

# Concentrated flow channels



**SnapMaps** Information Tools Drawing Tools PDF Creation

**Draw Concentrated Flow Channel**

Concentrated Flow Channels:

How wide is the channel?

Is a Conduit to navigable water:

Soils

Restriction Layers  Turn on/off all

- Winter Restriction if Slope > 9%
- No Winter App. Slope > 12%
- CAFO SWQMA 300FT
- SWQMA 1000FT
- FALL N Restrictions
- CAFO Manure Restriction (W)
- CAFO Manure Restriction (R)

Farm Layers  Turn on/off all

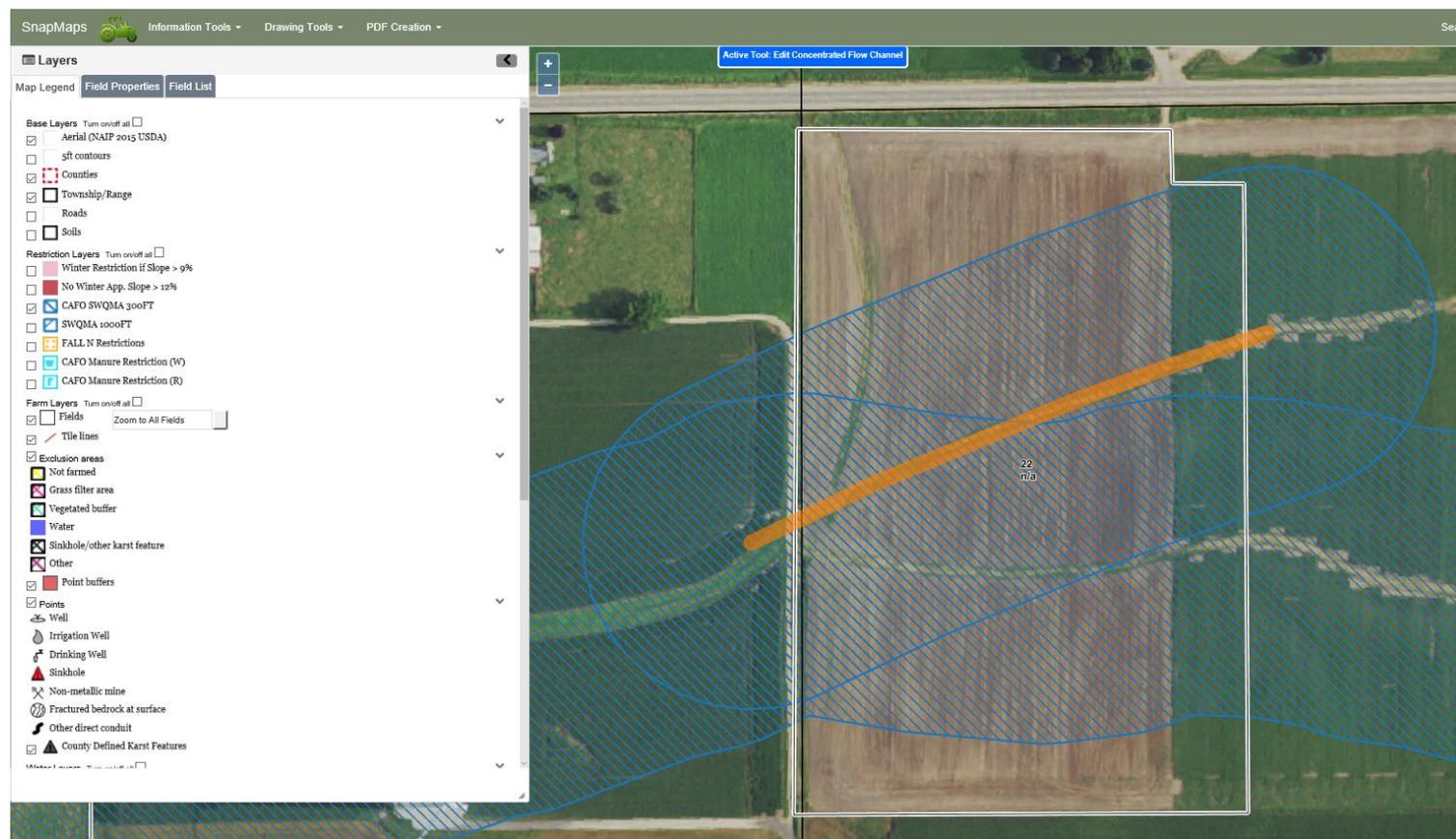
- Fields
- Tile lines
- Exclusion areas
  - Not farmed
  - Grass filter area
  - Vegetated buffer
  - Water
  - Sinkhole/other karst feature
  - Other
- Point buffers
- Points

Active Tool: Draw Concentrated Flow Channel

test

# Concentrated flow channels

If the farm is a CAFO and you check the box conduit to navigable water, the SWQMA will be created automatically.



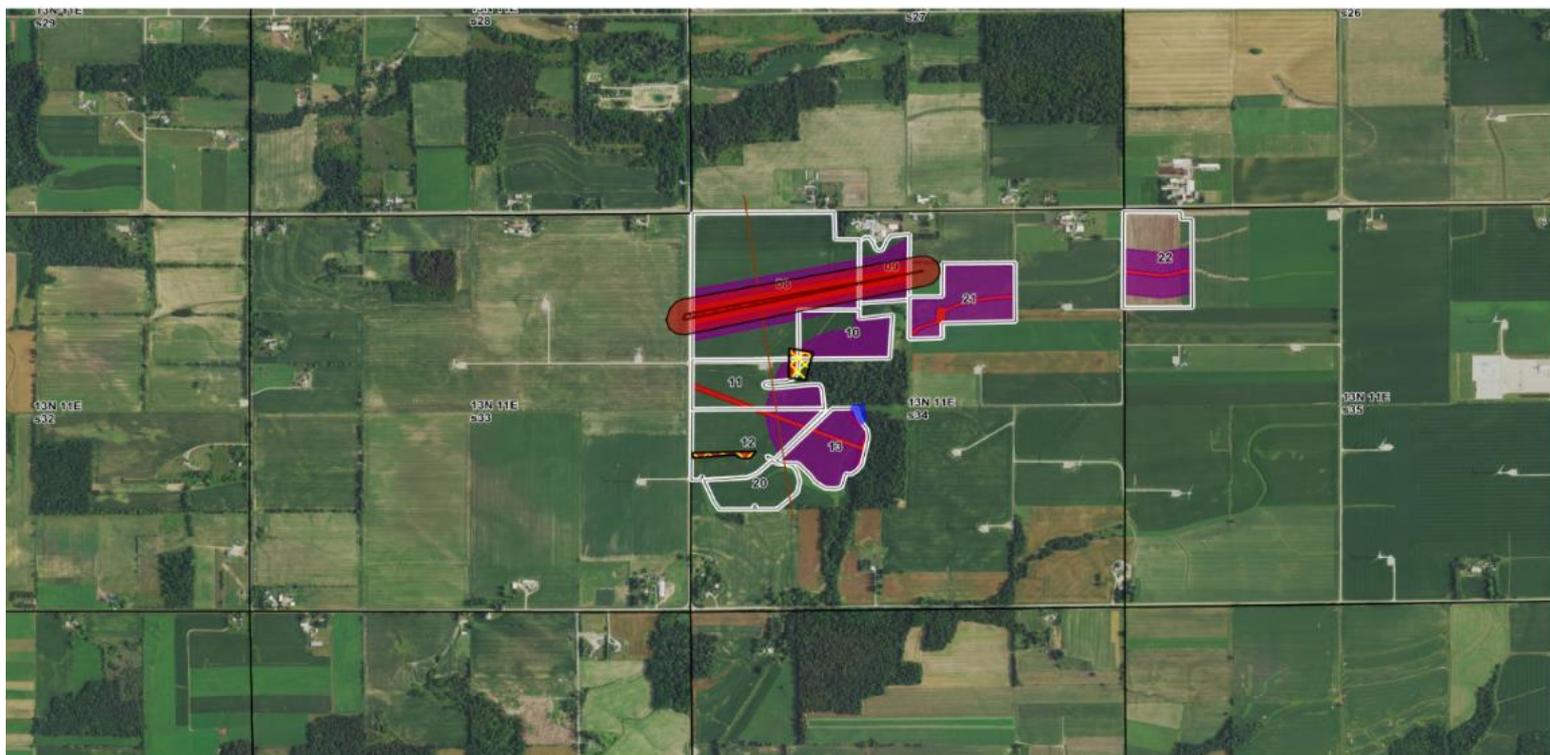
# CAFO spreading maps

## Spreading map

Farm Name: Columbia Sample Farm

Is this a CAFO: True

Map generated on: 8/4/2016 SnapMap Version: 16.0, Crop year: 2016

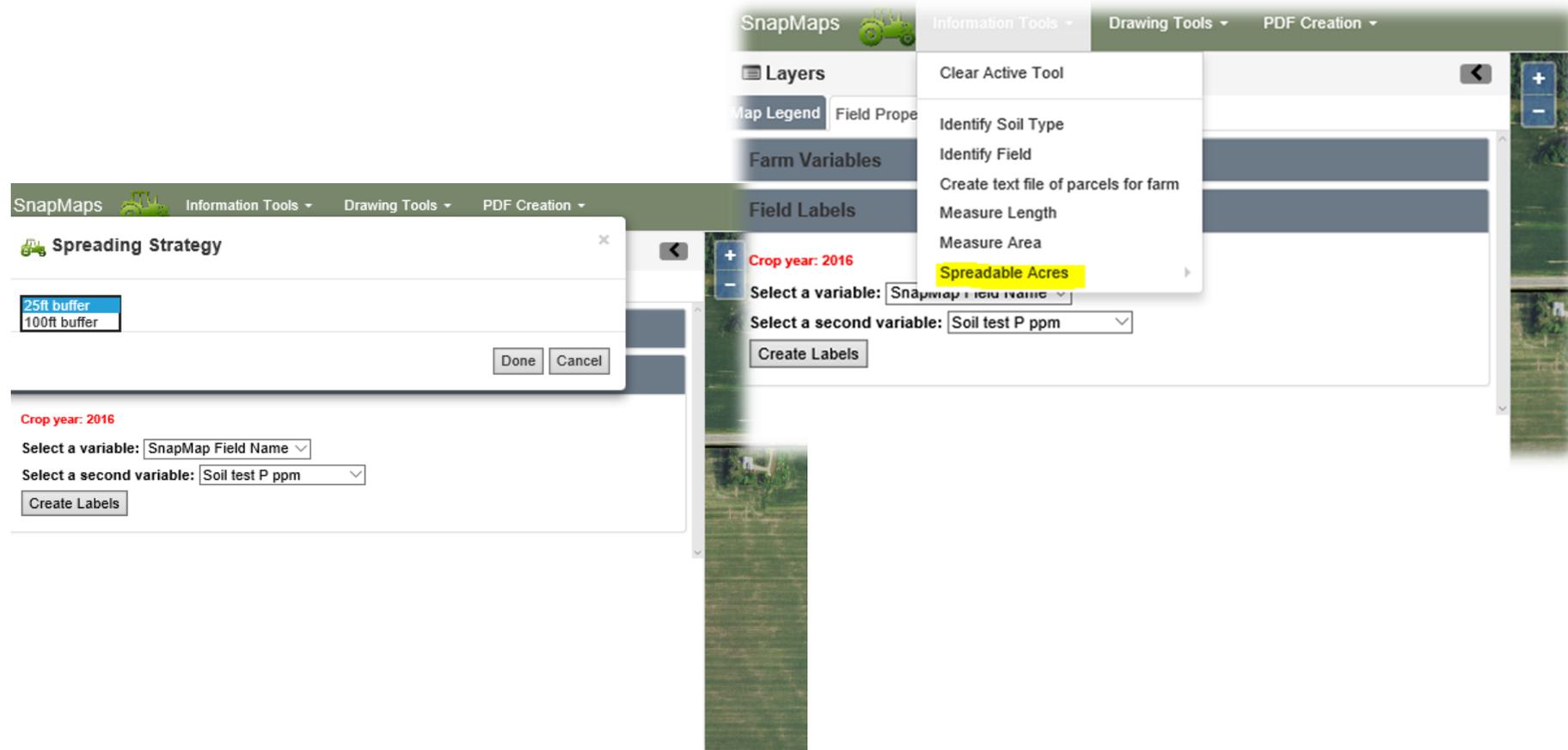


### Legend (Spreading Map)

-  No Spreading
-  Injection only

# CAFO spreading maps

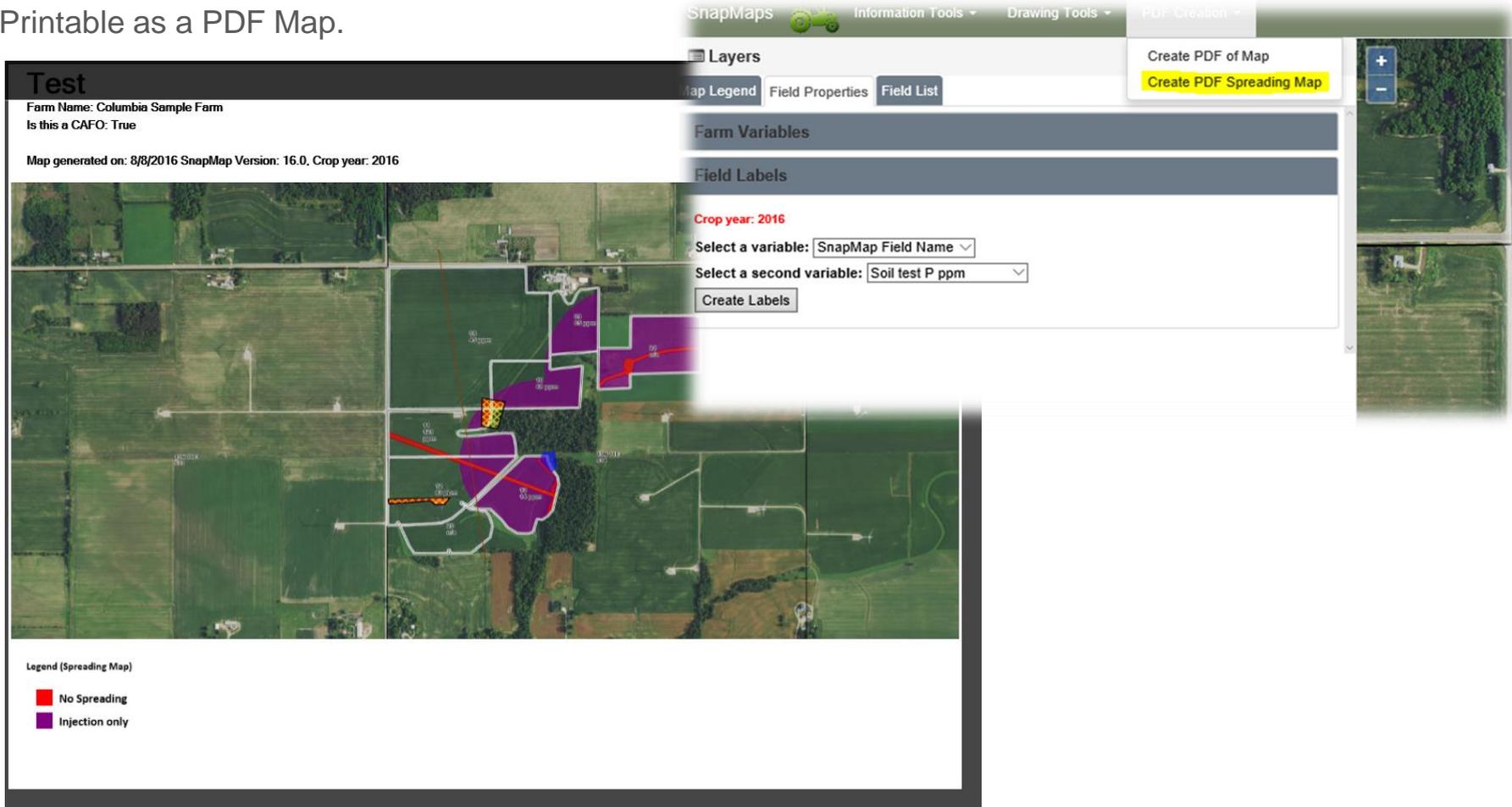
Ability to change between 25ft and 100ft strategies.



The screenshot displays the SnapMaps web application interface. At the top, there is a navigation bar with the following items: SnapMaps, Information Tools, Drawing Tools, and PDF Creation. Below this, a sidebar contains several menu items: Layers, Map Legend, Field Properties, Farm Variables, and Field Labels. The main content area shows a 'Spreading Strategy' dialog box with two radio button options: '25ft buffer' (selected) and '100ft buffer'. Below these options are 'Done' and 'Cancel' buttons. In the background, a 'Field Labels' dialog box is open, showing a 'Crop year: 2016' label, a dropdown menu for 'Select a variable:' (set to 'SnapMap Field Name'), another dropdown for 'Select a second variable:' (set to 'Soil test P ppm'), and a 'Create Labels' button. A context menu is also visible, listing various tools such as 'Clear Active Tool', 'Identify Soil Type', 'Identify Field', 'Create text file of parcels for farm', 'Measure Length', 'Measure Area', and 'Spreadable Acres' (which is highlighted in yellow).

# CAFO spreading maps

Printable as a PDF Map.



The screenshot displays the SnapMaps web application interface. At the top, there are navigation tabs: SnapMaps, Information Tools, Drawing Tools, and PDF Creation. The PDF Creation dropdown menu is open, showing options for 'Create PDF of Map' and 'Create PDF Spreading Map' (highlighted in yellow).

Below the navigation, there are tabs for 'Map Legend', 'Field Properties', and 'Field List'. The 'Field List' tab is active, showing a panel with the following information:

- Farm Name:** Columbia Sample Farm
- Is this a CAFO:** True
- Map generated on:** 8/8/2016 **SnapMap Version:** 16.0. **Crop year:** 2016

The main map area shows an aerial view of the farm with several fields highlighted in purple, indicating 'Injection only' spreading. A legend at the bottom left of the map area defines the colors: a red square for 'No Spreading' and a purple square for 'Injection only'.

On the right side of the map, there is a 'Farm Variables' panel with the following settings:

- Crop year:** 2016
- Select a variable:** SnapMap Field Name
- Select a second variable:** Soil test P ppm
- Create Labels** button

At the bottom of the interface, there are zoom controls (+ and - buttons) and a vertical scroll bar.

# Distance and slope to water

- Automated calculations of distance and slope to perennial water.
- Distance is as crow flies. The distance calculation is a rough estimate.
- Will not overwrite distance or slopes where a user has manually entered them into SnapPlus Desktop

SnapMap Fields   SnapMap Restrictions   SnapMap Soils   SnapMap Features   SnapMap Acres											
AL	Exists	Subfarm	Field Name	Field County	Field Acres	Soil Map Symbol (critical)	Soil Map Symbol (predominant)	Slope	Slope Length	Below Field Slope To Water	Distance To Perennial Water
▶	Yes	West	08	Columbia	75.4	SaC2	PnA	9	150	6.1 - 12	301 - 1000
	Yes	West	09	Columbia	11.4	SaB2	GeB	4	200	6.1 - 12	301 - 1000
	Yes	Home	10	Columbia	15.7	SaC2	SaB2	10	150	2.1 - 6	301 - 1000
	Yes	East	11	Columbia	20.2	SaC2	SaB2	10	150	6.1 - 12	301 - 1000
	Yes	East	12	Columbia	24.3	SaC2	SaB2	9	150	6.1 - 12	0 - 300
	Yes	East	13	Columbia	15.3	SaE	SnD2	25	60	2.1 - 6	301 - 1000
	Yes		20	Columbia	11.4	SaC2	SaC2	10	150	2.1 - 6	301 - 1000
	Yes		21	Columbia	21.1	SaB2	PnB	4	200	0 - 2	301 - 1000
	Yes		22	Columbia	24.2	RdC2	PnB	9	150	0 - 2	1001 - 5000

# Questions, Suggestions, Comments

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