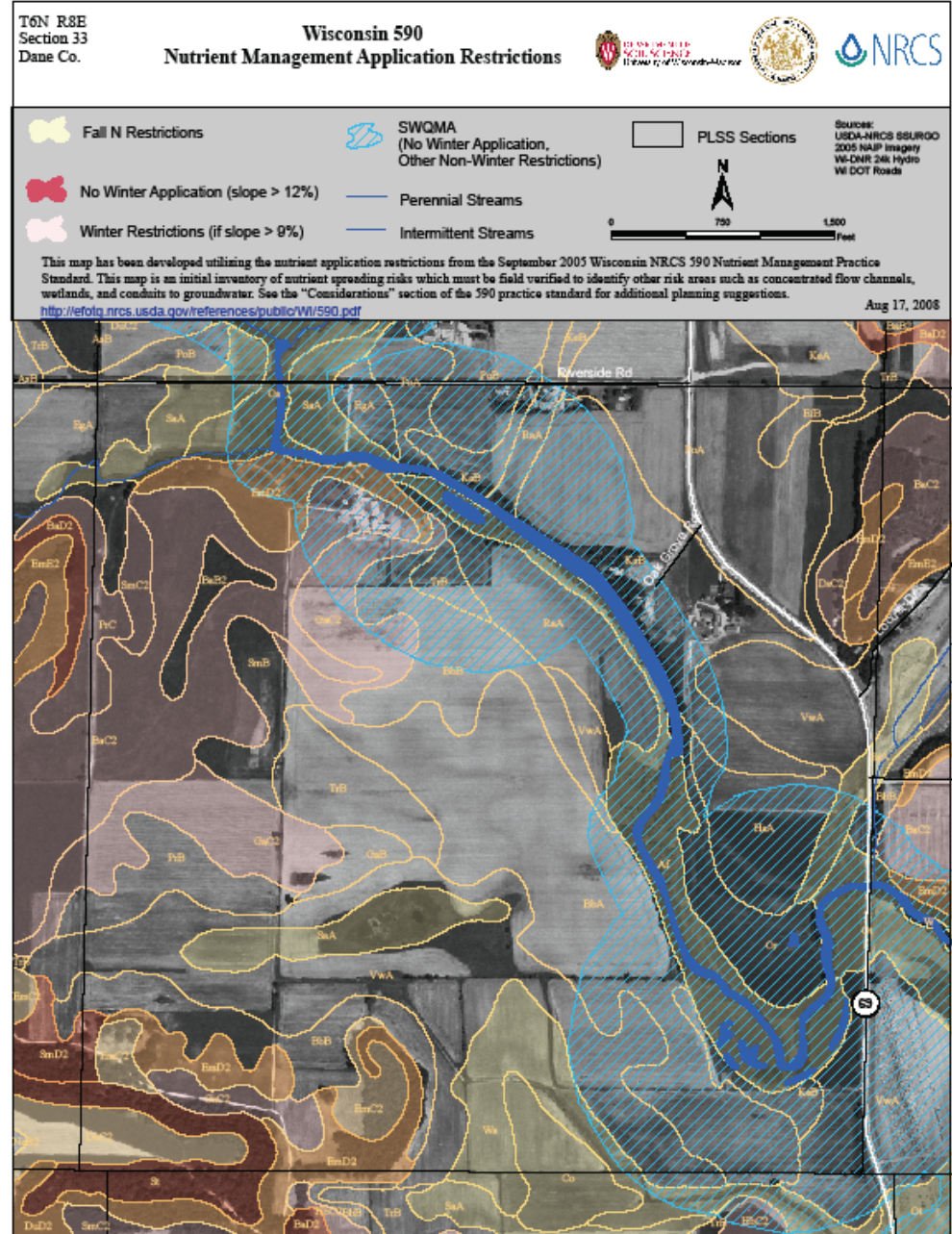


590 Nutrient Application Restriction Maps: An Overview and Demonstration

Sara Walling
DATCP
608-224-4524
sara.walling@wisconsin.gov

590 GeoPDFs

- “590” Spreading Restriction Maps Online
- Statewide, county, section level
- Contain all 590 mapable restrictions and setbacks
- Editable
- GIS-like layers
- Consistent product



Specifications

- Adobe Reader 8.1 or later is preferred
- Internet Browser
 - Internet Explorer 7, or
 - Mozilla Firefox 2 or 3
- 512K or greater RAM
- 14.5MB hard disk space
- Pentium III processor or equivalent
- DSL or cable internet connection recommended

DATCP Website

Manure Management Advisory System (MMAS) - Department of Agriculture, Trade & Consumer Protection - Windows Internet Explorer

http://www.datcp.state.wi.us/arm/agriculture/land-water/conservation/manure-mngmt/index.jsp

File Edit View Favorites Tools Help

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Manure Management Advisory System (MMAS) - Depa...

These maps are accessible for free on-line for the entire state for use by planners, producers, and manure applicators.

As of 10/29/08, the following counties are available:

Adams	Door	Kewaunee	Outagamie	Sawyer	Washington
Barron	Fond du Lac	La Crosse	Ozaukee	Shawano	Waukesha
Brown	Grant	Lafayette	Pierce	Sheboygan	Winnebago
Buffalo	Green	Lincoln	Price	St. Croix	Wood
Calumet	Green Lake	Manitowoc	Portage	Trempealeau	
Clark	Iowa	Marathon	Racine	Vernon	
Columbia	Jackson	Marquette	Richland	Walworth	
Crawford	Jefferson	Monroe	Rock	Waupaca	
Dane	Juneau	Oconto	Rusk	Waushara	
Dodge	Kenosha	Oneida	Sauk	Washburn	

To access **currently available Nutrient and Manure Application Restriction Maps**, click [here](#).

To access an **example** Nutrient and Manure Application Restriction Map, click [here](#). (PDF) To view an example Restriction Map with features created by the GeoPDF Toolbar, click [here](#). (PDF)

Restrictions Map Specifications:

- Each individual map covers one section (one square mile).
- Contained in GeoPDF file format that allows user editing, query, and printing options
 - For more information about GeoPDFs and their features, click [here](#).
- Maps contain an ortho-photo, major land features, soil survey mapping unit boundaries, and

Buy Your Supplies Online
Certificate of Free Sale
Women in Farming Conference
Agency Topics
2008 Flood Resources
Office of Privacy Protection
Alternative Fuels
Premises Registration
Working Lands Initiative
Siting Livestock Operations
Ultimate Land Use Study
Tour III

WISCONSIN.GOV
WISCONSIN.GOV

http://www.datcp.state.wi.us/arm/agriculture/land-water/conservation/manure-mngmt/index.jsp

Choosing your Map

Manure Management Advisory System - Windows Internet Explorer

http://mmas-mapping.soils.wisc.edu/

File Edit View Favorites Tools Help

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Manure Management Advisory System

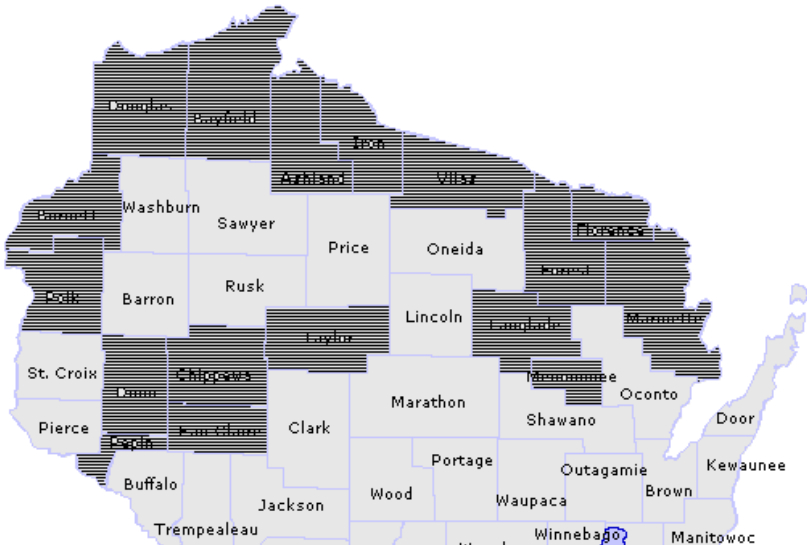
Home RSS Print Page Tools

NRCS 590 Nutrient Application Restriction Maps

****Select your preferred search method by clicking your county on the map, or by clicking the "Select by Township/Range/Section" tab.****

Click your County or Select by Township/Range/Section

Click on your county in the map below to view a county map displaying the civil townships; navigate to the township and section of interest to download a map. ([system requirements](#))



The maps provided through this website contain many of the features required for a compliant NRCS 590 nutrient management plan under ATPC 50. Several required landscape features are not included in these maps, such as wells and locally identified features that serve as direct conduits to groundwater. Field verification of all landscape features is required!

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- [DATCP MMAS Page](#)

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- [System Requirements](#)
- [Contact Information](#)

How-Tos

- [Use GeoPDFs](#)
- [Identify PLSS sections](#)

Choosing your Map

Several County LCD offices provide mapping services and will often customize the maps for the landowner/planner.

Also, LCD maps may include features such as wells, sinkholes, etc that the NRCS/DATCP maps do not!!!

See Handout for those counties!

MMAS Spreading Restriction Maps for Dane County - Windows Internet Explorer

http://mmas-mapping.soils.wisc.edu/geoserver/data/mmas/county.jsp?county=dane

File Edit View Favorites Tools Help

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MMAS Spreading Restriction Maps for Dane County

To help protect your security, Internet Explorer blocked this site from downloading files to your computer. Click here for options...

Right-click here to download PLSS section 4060833 as a file.

management plan under ATCP 50. Several required landscape features are not included in these maps, such as wells and locally identified features that serve as direct conduits to groundwater. Field verification of all landscape features is required!

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- [Soil & Slope Restriction Coding Info](#)
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- [System Requirements](#)
- [Contact Information](#)

How-Tos

- [Use GeoPDFs](#)
- [Identify PLSS sections](#)
- [Use the PLSS system](#)

Downloads

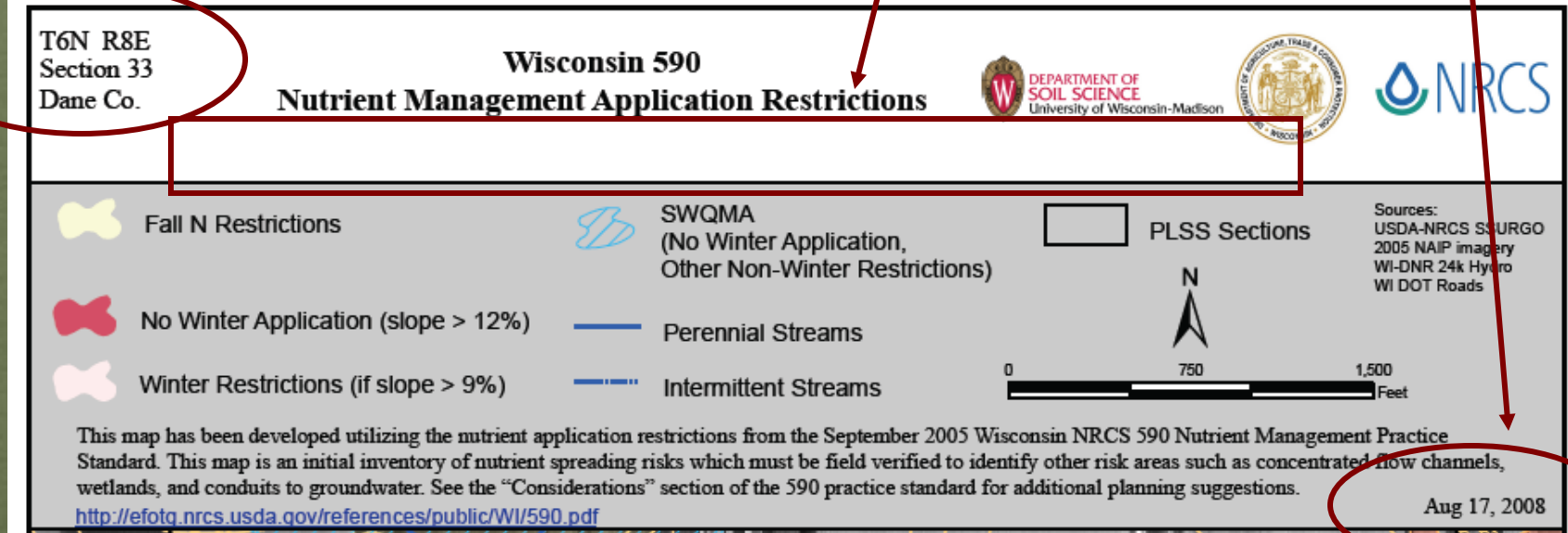
- [GeoPDF Toolbar \(TerraGo\)](#)

The Legend

Tells you
where you
are

White Space for
adding custom
legend/notes/title,
etc

Tells you
when the
map was
made



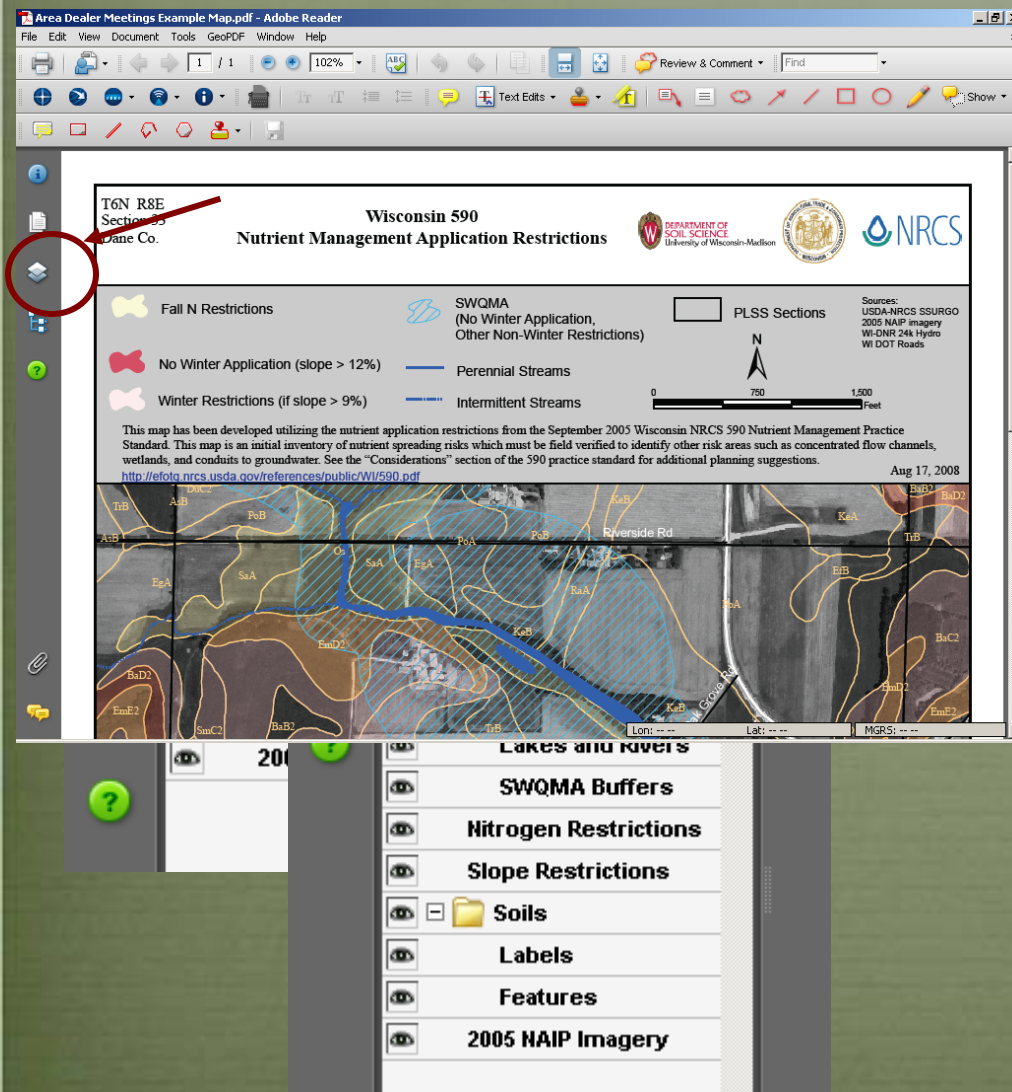
Working with the Layers

You Can:

- Turn each on/off
- Print the map with layers on/off

Why??

- Helps to see the aerial underneath
- Differentiate between colors/restrictions
- Makes an easier to read map for the producer

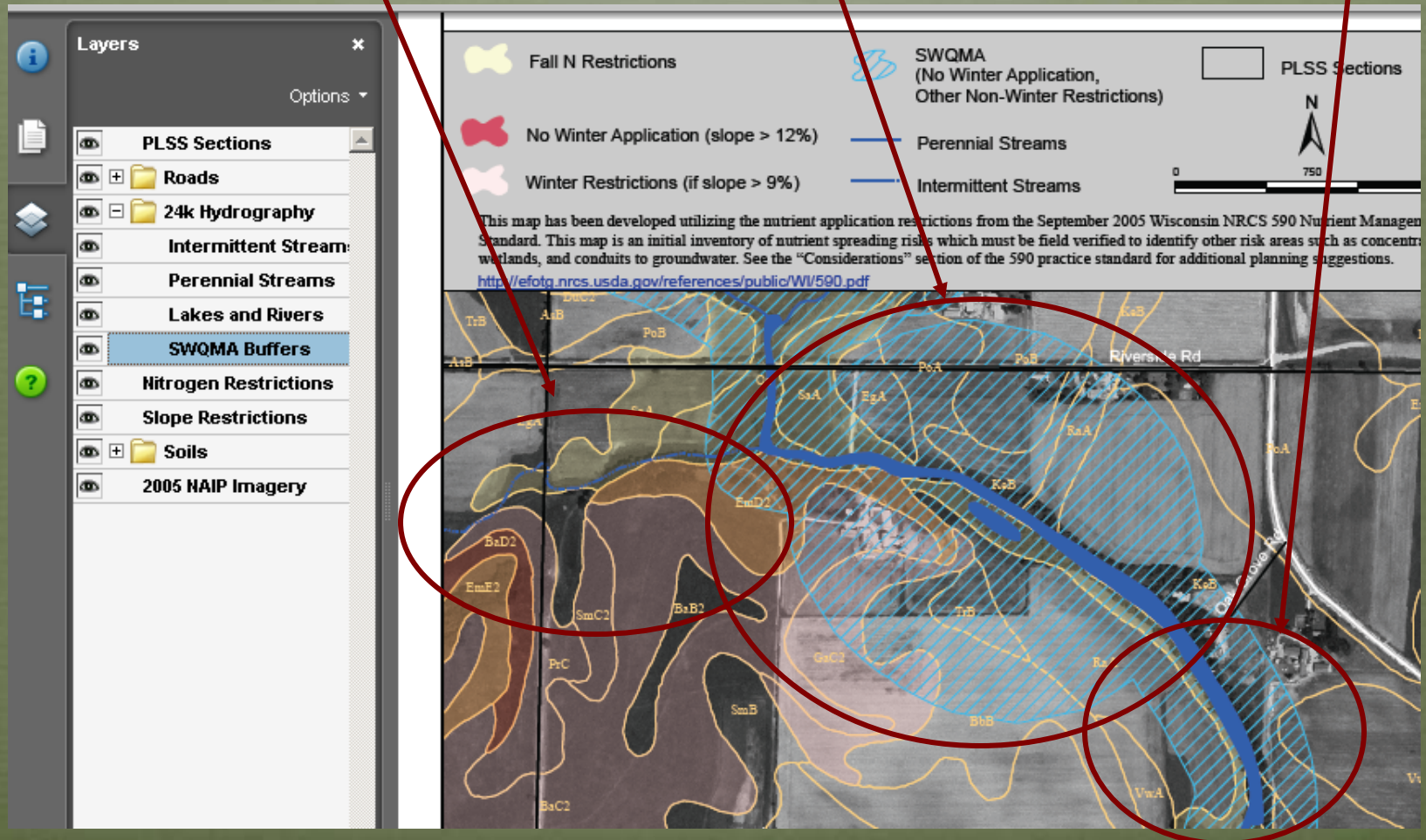


SWQMAs

Intermittent
Stream = No
Buffer

Lake/pond = 1000ft buffer

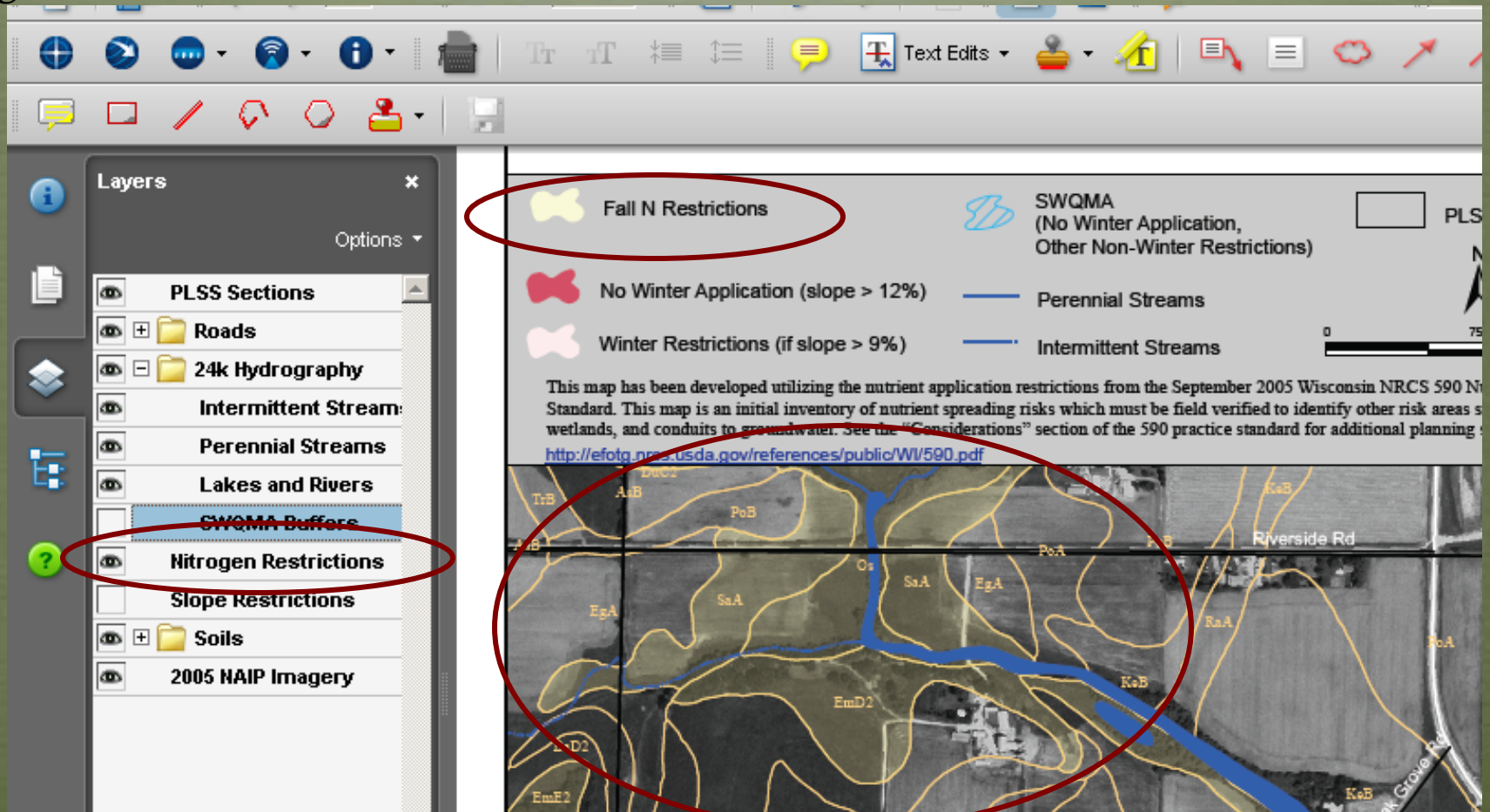
Perennial
Stream =
300ft Buffer



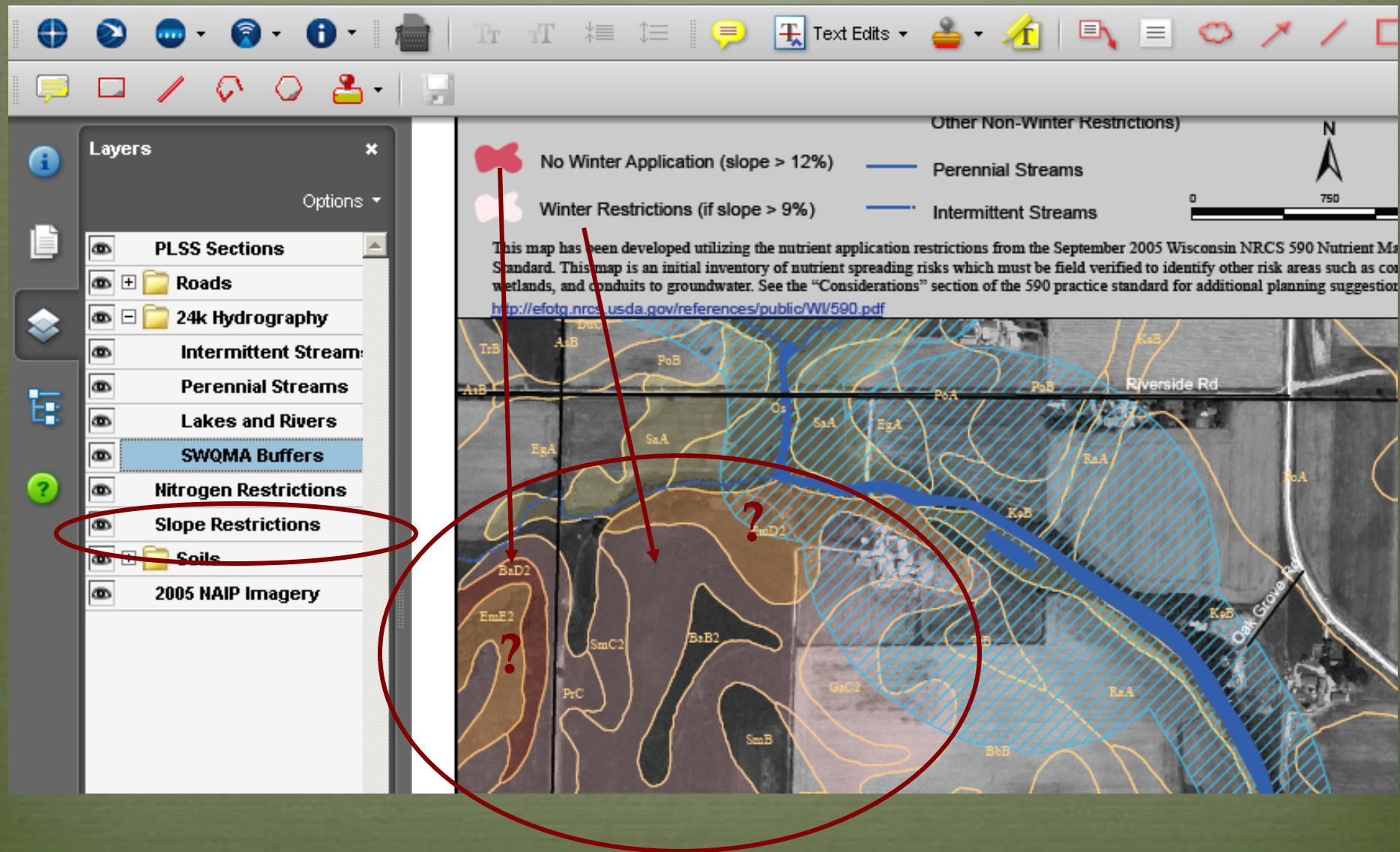
Fall N Restriction

Source: N restricted soils listed in the April 2007 WI 590 Tech Note Appendix 1.

Soils were added/removed from the December 2006 list. Maps from other sources may not contain all of the N restricted soils or may have restrictions on soils that are no longer valid.



Slope Restrictions

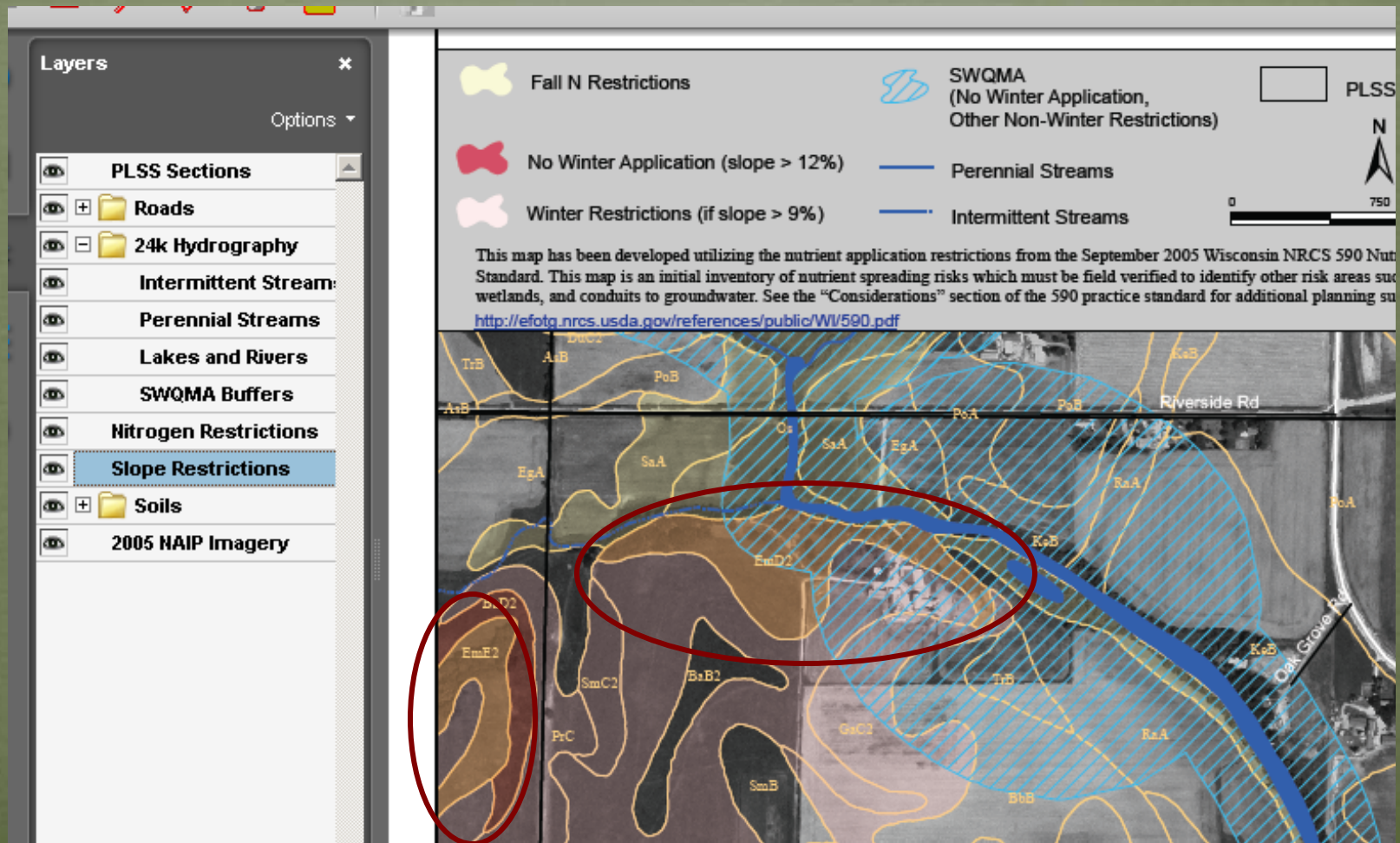


Overlapping Restrictions

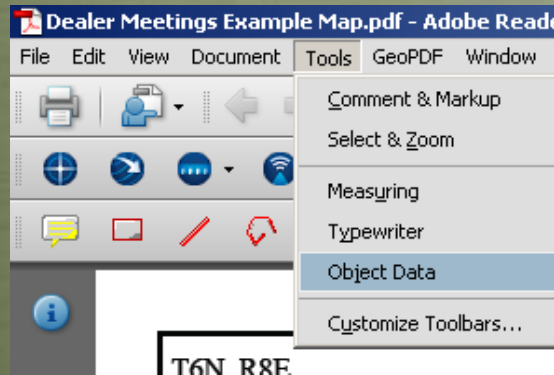
Yellow + Red = Orange

(N Restriction) + (Slope > 12%) = Orange

There's more than one restriction to follow!



Object Data Tool



- Lets you highlight a soil type to see the name, description, N restriction

Model Tree

Highlight Color Options

- Soils : Radford silt loam, 01
- Soils : Dunbarton silt loam,
- Soils : Kegonsa silt loam, 2
- Soils : Plano silt loam, gravi
- Soils : Basco silt loam, 12 t
- Soils : Orion silt loam, wet
- Soils : Ashdale silt loam, 2
- Soils : Dunbarton silt loam,
- Soils : Basco silt loam, 2 to
- Soils : Basco silt loam, 6 to

<No 3D Model Selected>

Property	Value
musym	EmD2
muname	Elkmound sa
Nitrogen Restrictions	r

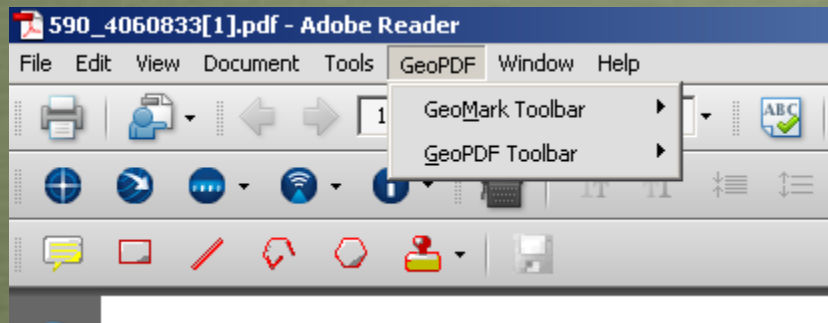
Winter Restrictions (if slope > 9%) Intermittent

This map has been developed utilizing the nutrient application restrictions from Standard. This map is an initial inventory of nutrient spreading risks which may wetlands, and conduits to groundwater. See the "Considerations" section of the <http://efotg.nrcs.usda.gov/references/public/WV/590.pdf>

The map displays various soil types labeled with codes such as TrB, AaB, PoB, AaB, EgA, SaA, EgA, PoA, K, EmD2, BaD2, EmE2, SmC2, BaB2, PrC, SmB, GaC2, BaC2, TrB, PrB, GaC2, and GaB. A red dashed line outlines a specific area on the map.

GeoToolbar

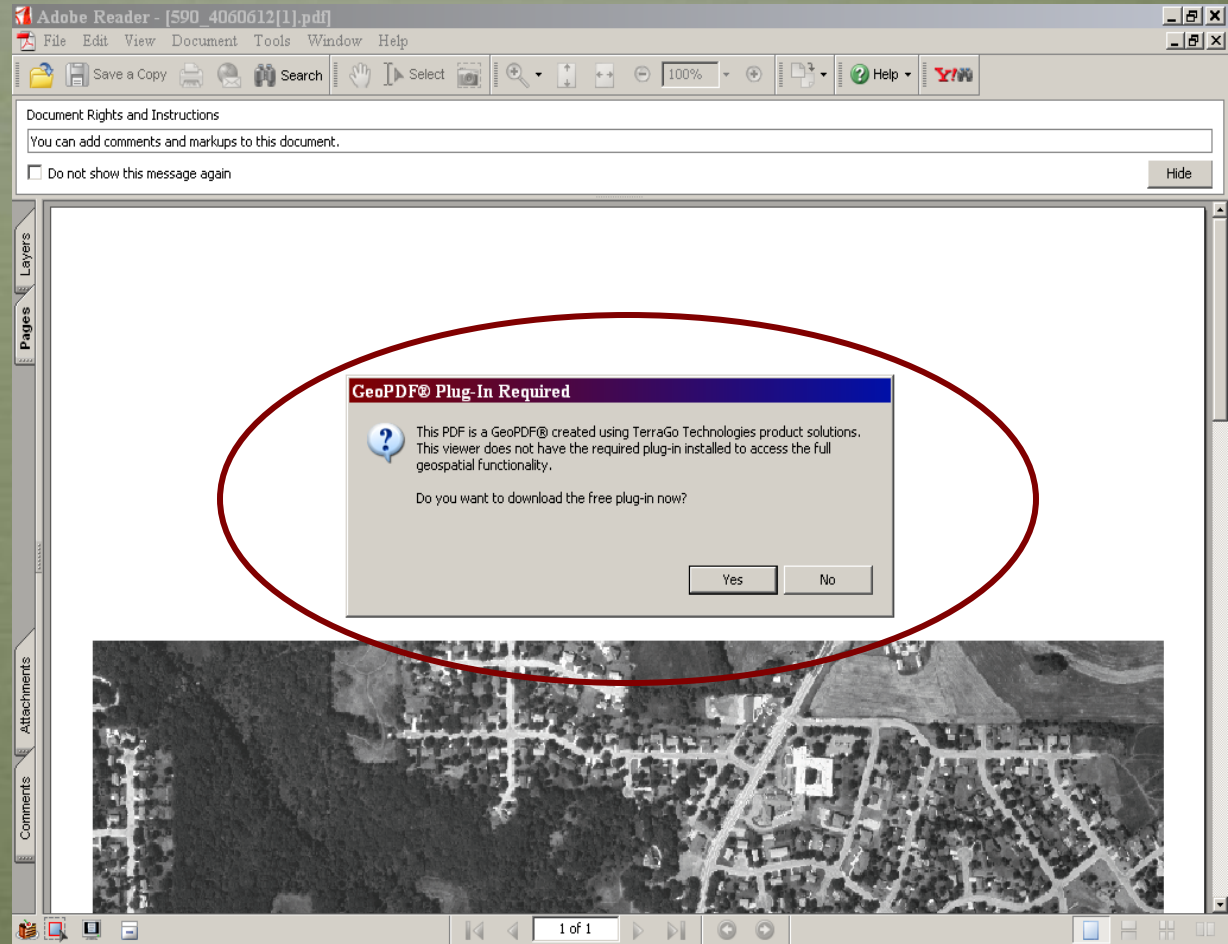
- Let's you customize the maps:
 - Draw, fill polygons with various colors,
 - Measure Area, Length
 - Add notes,
 - Obtain more detailed information from the map



<http://www.terragatech.com/solutions/geopdftoolbar.php>

GeoToolbar Download

- The 1st time you open a map the site will prompt you to download the free GeoToolbar
- SAVE the .exe file, then run it from your computer



GeoToolbar

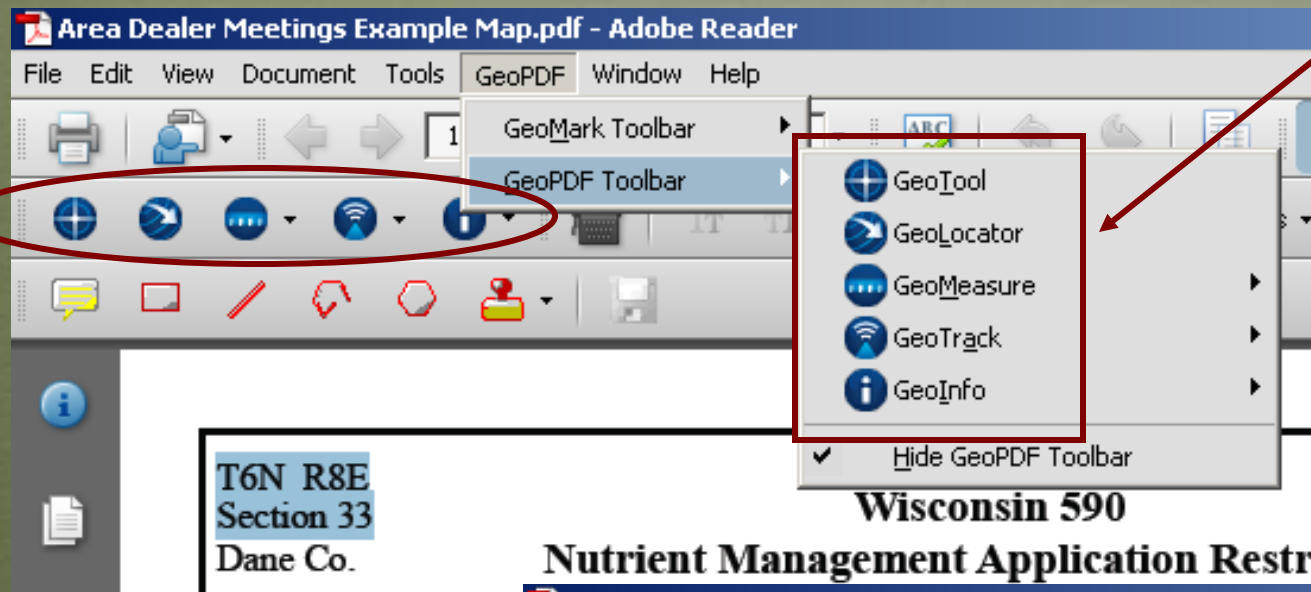
GeoPDF Toolbar:

Select a coordinate to Google Map

Click a point to see exact coordinates

Measure length/area

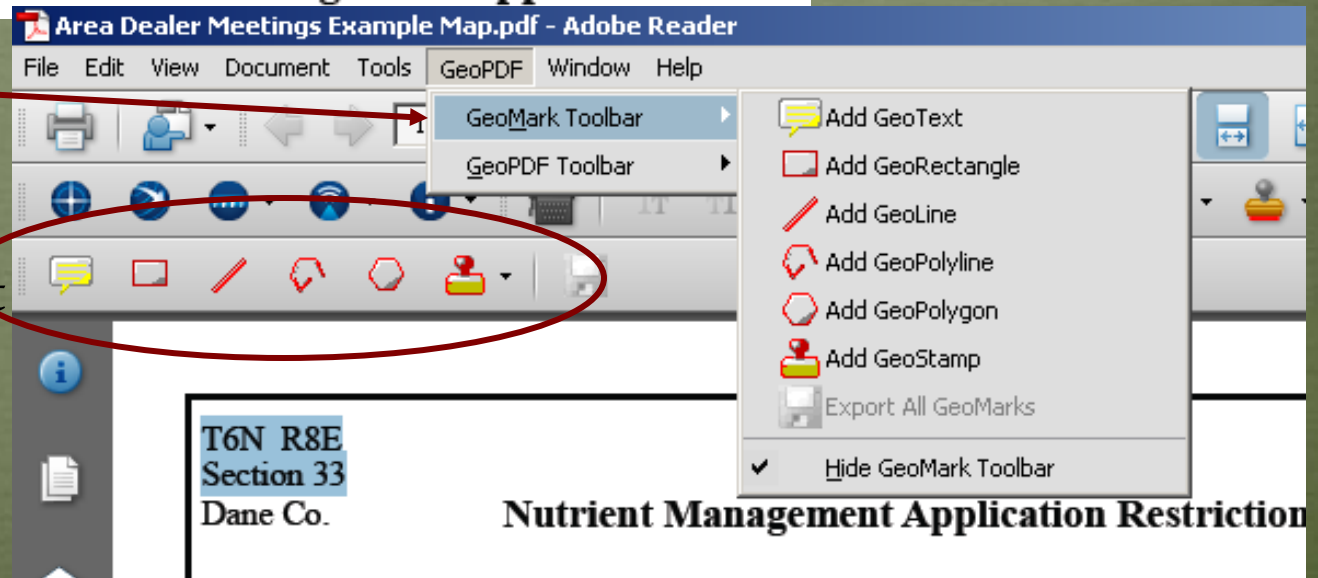
Import/export data



GeoMark Toolbar:

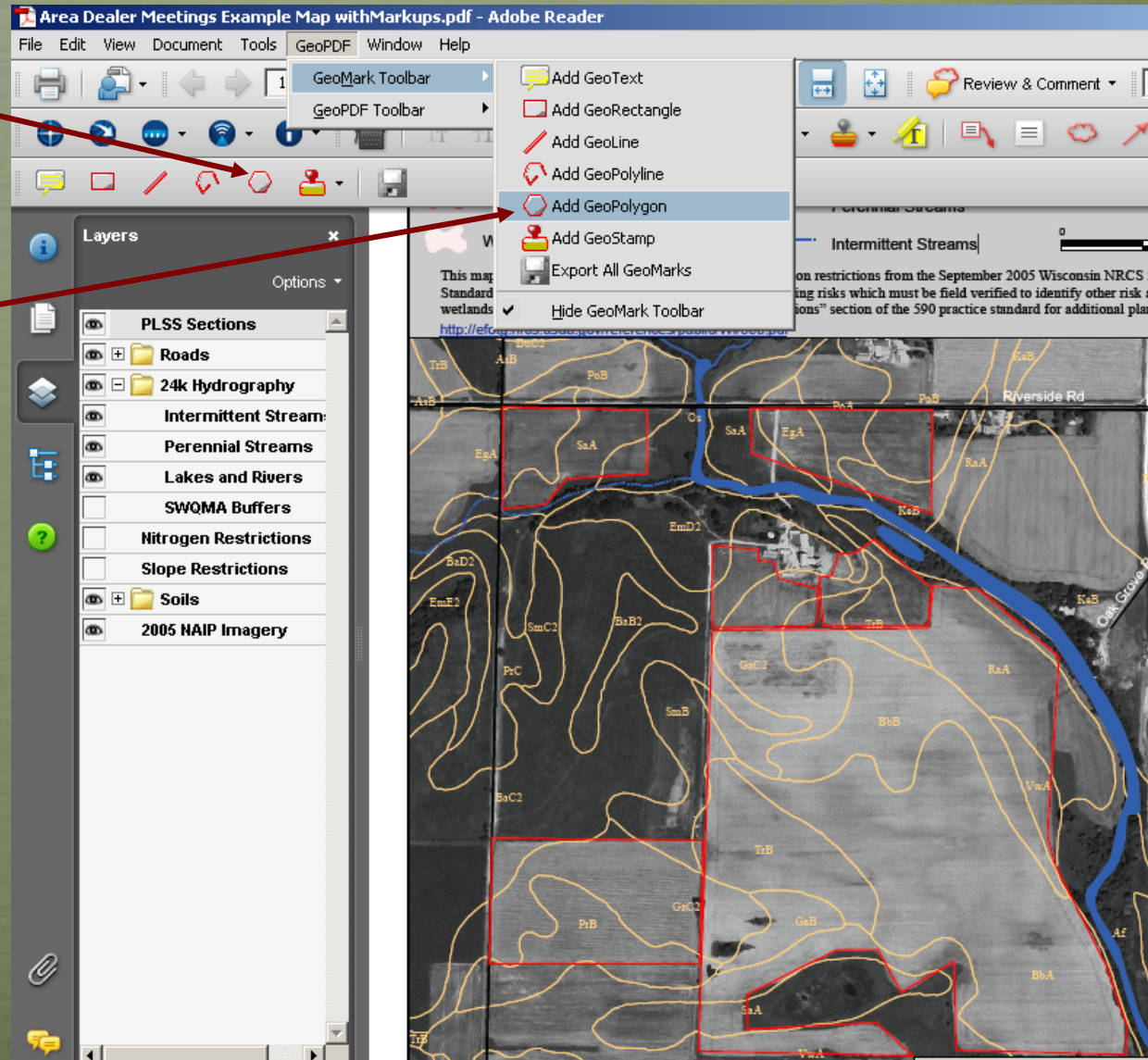
Draw field boundaries/concentrated flow channels

Add comments in sticky note style



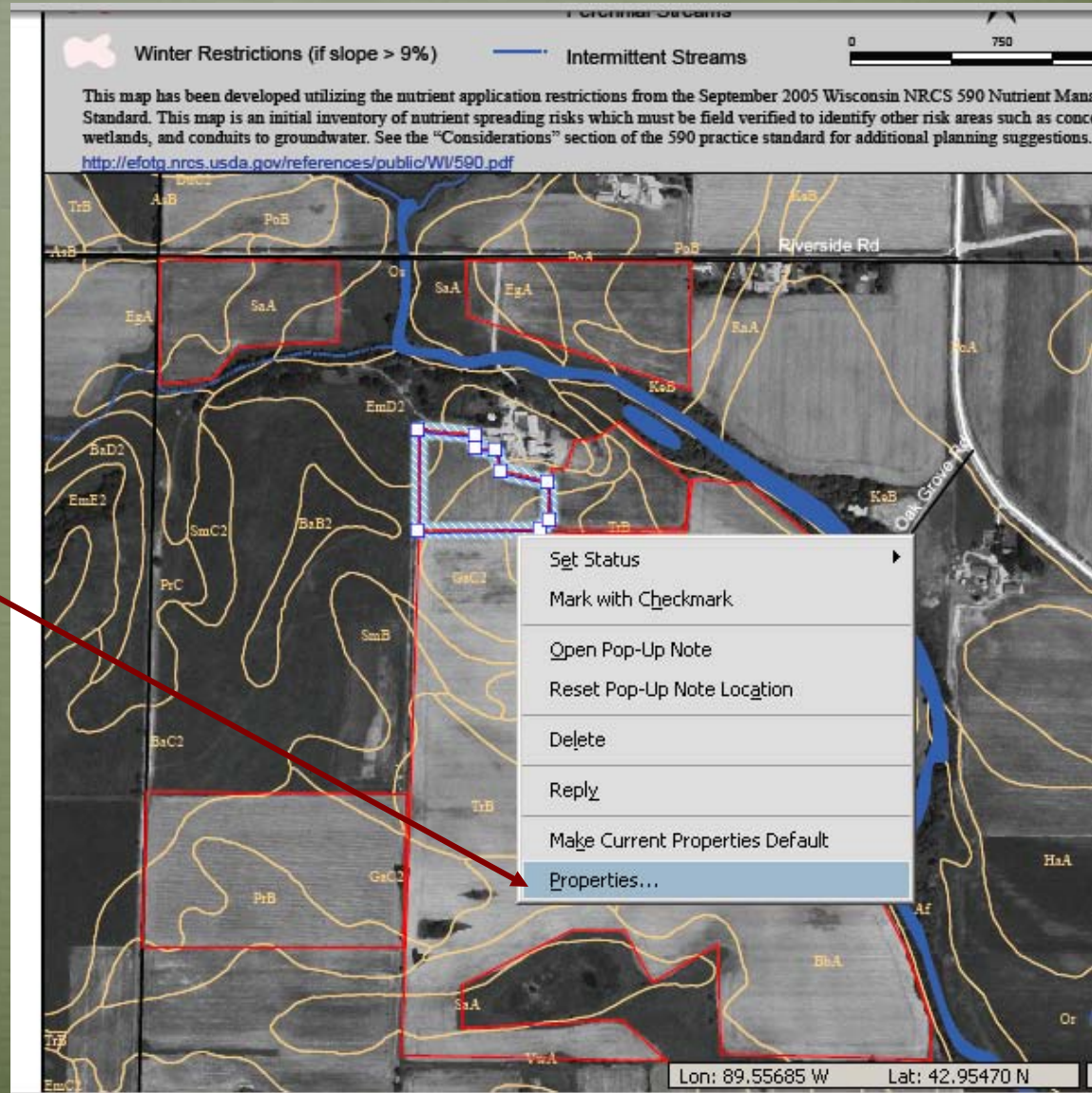
GeoToolbar

- Draw Field Boundaries
- GeoPolygon



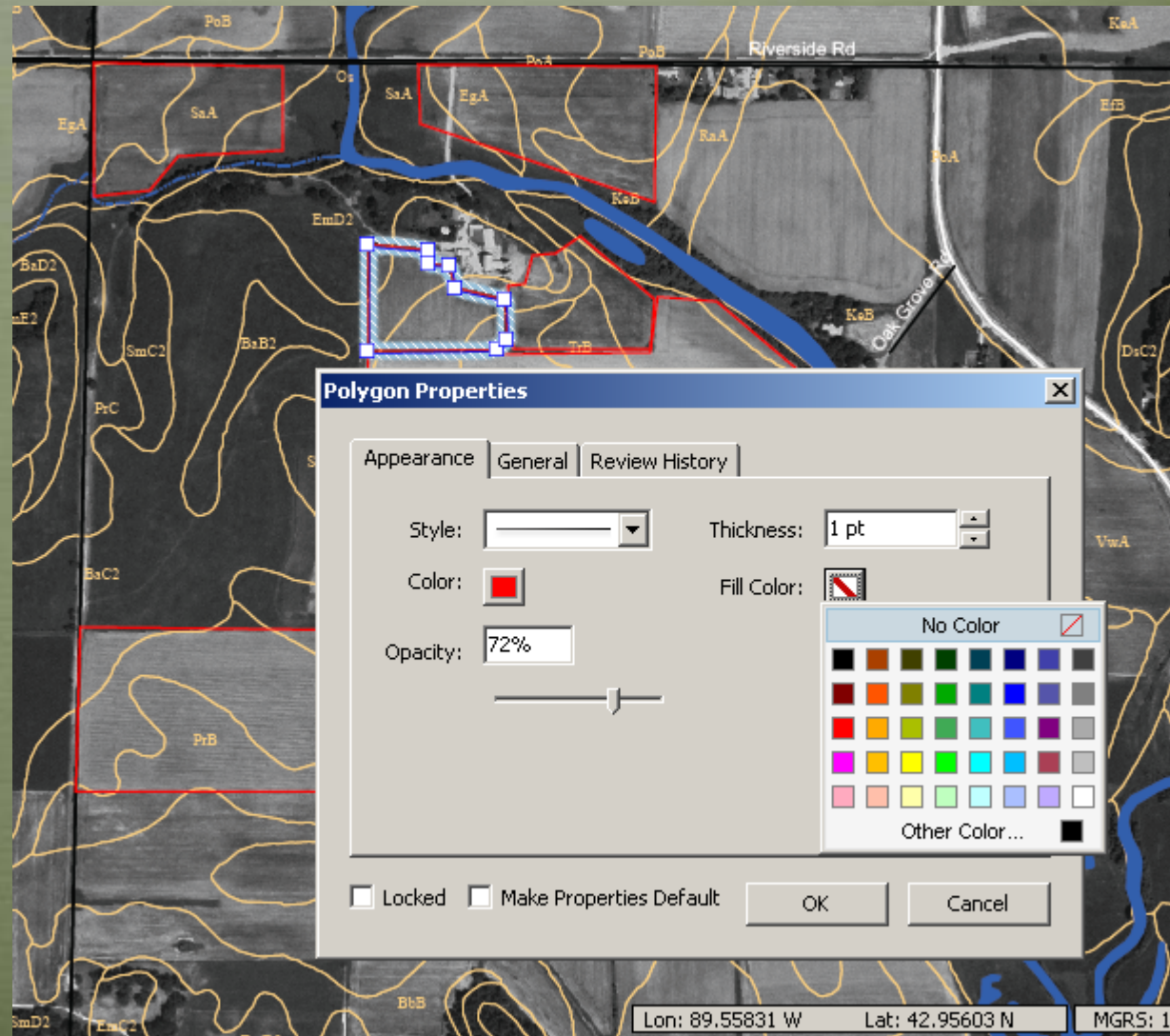
Change GeoPolygon Color

- Hover over line
- Right click to get options
- Choose “Properties”



Change GeoPolygon Color

- Choose colors to distinguish:
 - Crop type
 - Spreading Rate
 - Restrictions effecting field

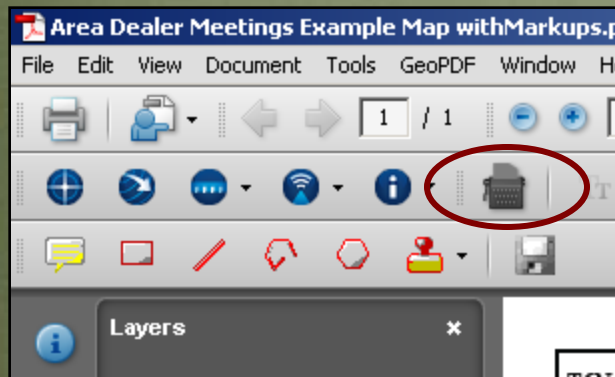
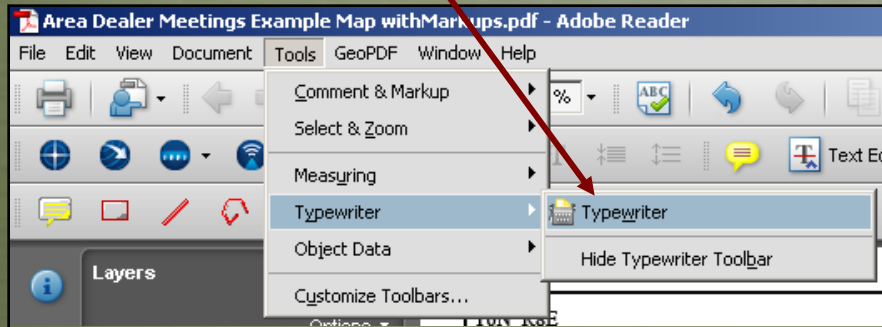


Adding Text

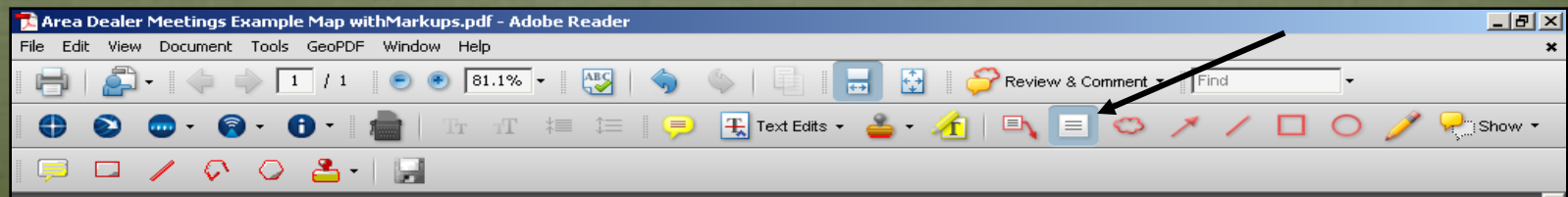
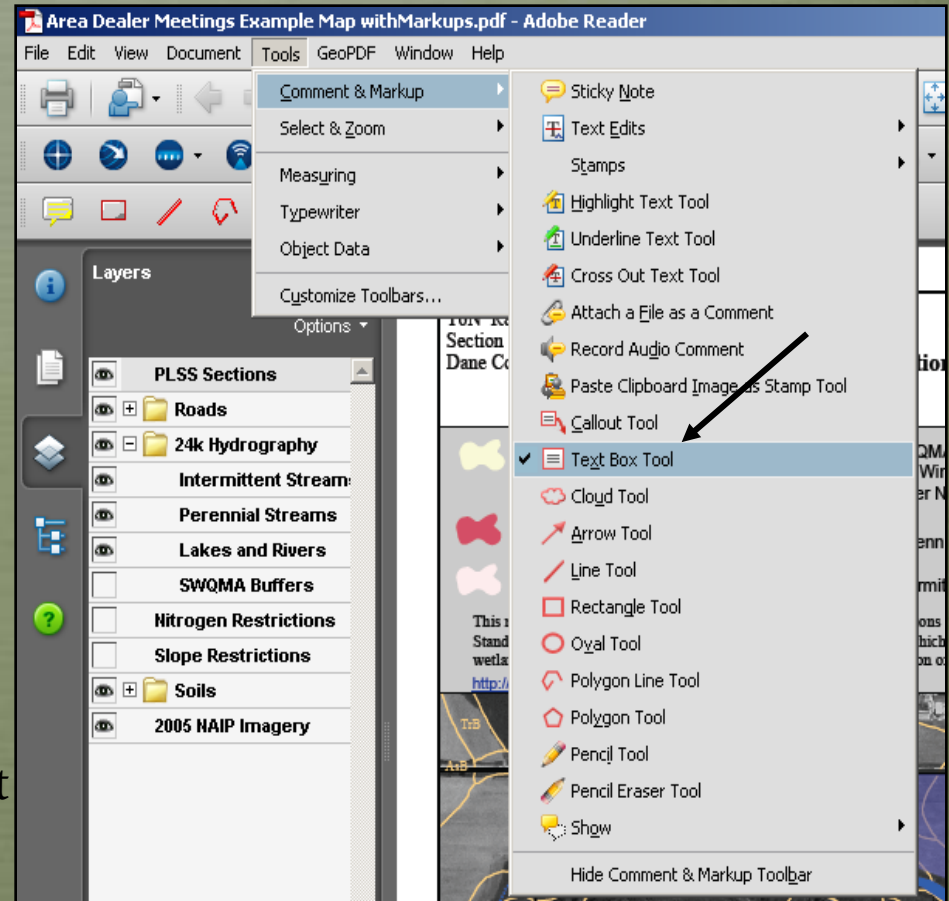
Typewriter

or

Text Box Tool



Click outside of the field boundary to insert text, then move the new text to where you want it to go

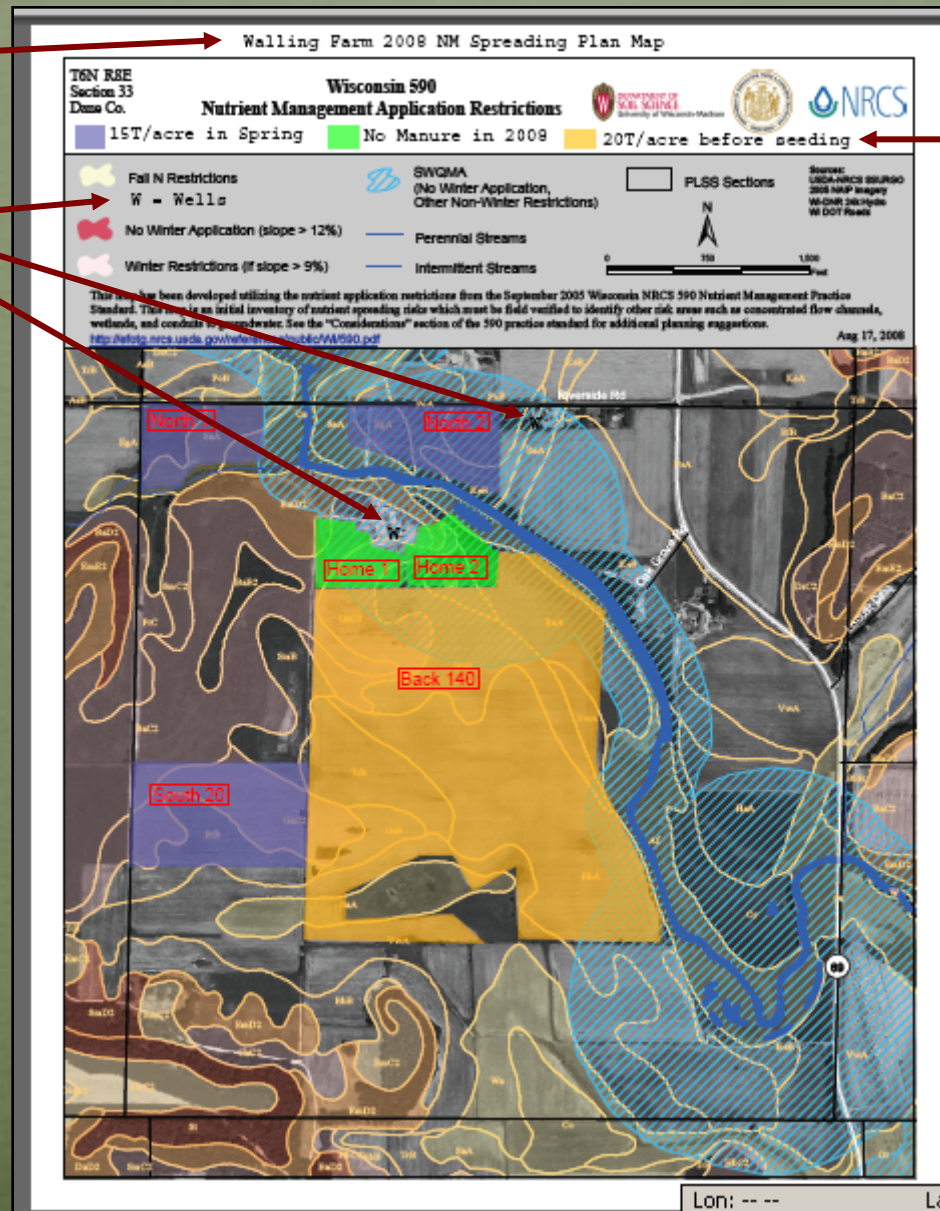


Customized Map

Map Title

Wells added

Fields
Delineated
and Color
Coded



Map Legend

Field Names
Added

Known Issues

Manure Management Advisory System - Windows Internet Explorer

http://mmas-mapping.soils.wisc.edu/

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Manure Management Advisory System

NRCS 590
Nutrient Application Restriction Maps

****Select your preferred search method by clicking your county on the map, or by clicking the "Select by Township/Range/Section" tab.****

Click your County or Select by Township/Range/Section

If you know the Township/Range/Section number:

Select the appropriate combination for your parcel in the boxes below and click "Download Map".

If you select a county/township/range/section combination that does not exist, an error message will appear.

- [This page](#) will help you identify sections using the PLSS system.
- [This page](#) will help you learn more about the PLSS system

County	Township Number	Range Number	Section Number
--	--	--	--

Download Map

If the selector boxes don't work in your browser, try [here](#).

The maps provided through this website contain many of the features required for a compliant NRCS 590 nutrient management plan under ATP 50. Several required landscape features are not included in these maps, such as wells and locally identified features that serve as direct conduits to groundwater. **Field verification of all landscape features is required!**

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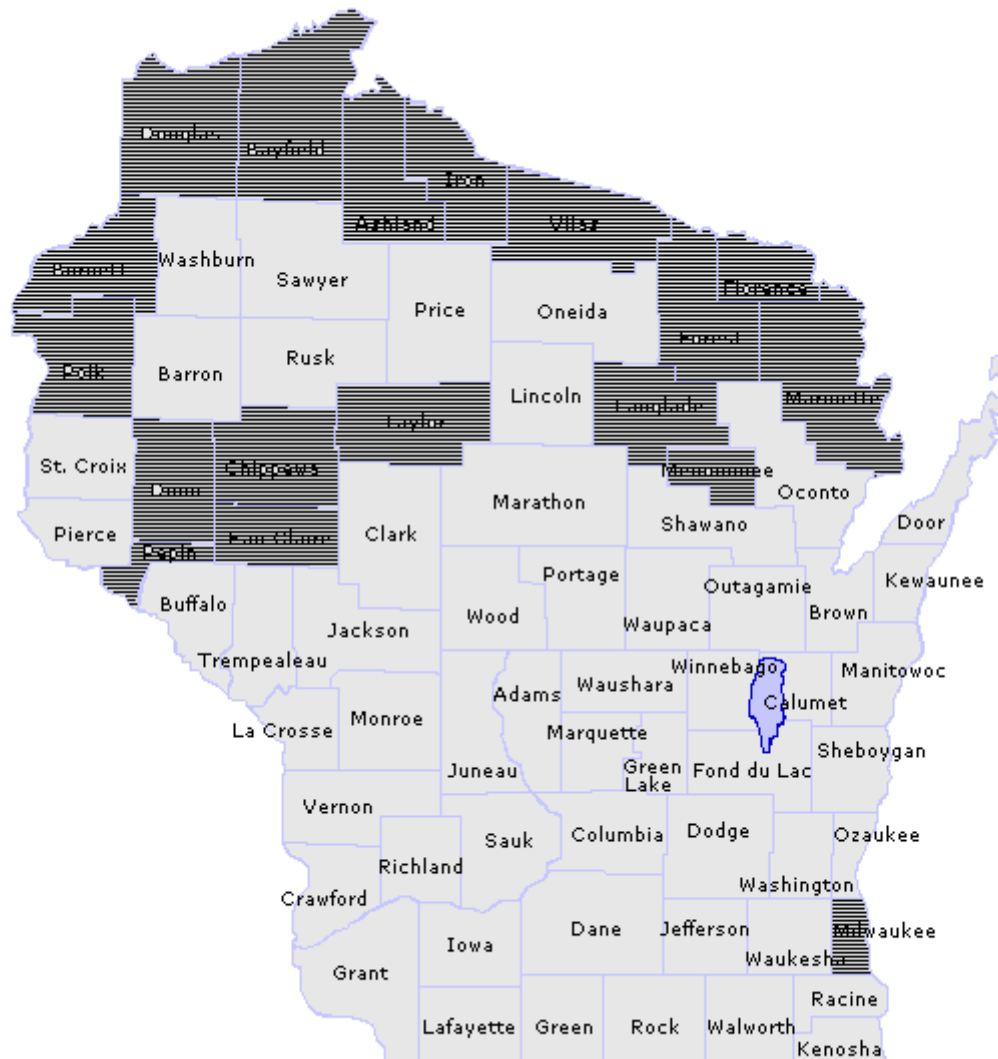
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Status



I can't stress enough...

You **must field verify** all landscape features and restricted areas to **ensure map accuracy** and to **identify other risk areas** such as concentrated flow channels, sinkholes, karst areas, wells!!

Contact Us

This is an evolving project and
we want your input!

Questions and problems with the maps
should be directed to:

Sara Walling, DATCP

608-224-4524

sara.walling@wisconsin.gov