

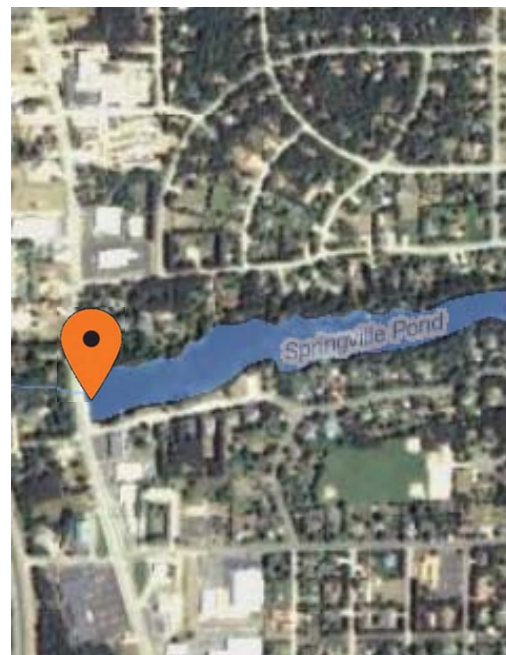
# PRESTO-Lite How-to Guide

Wisconsin's Web-based Application for Watershed Delineation and Characterization

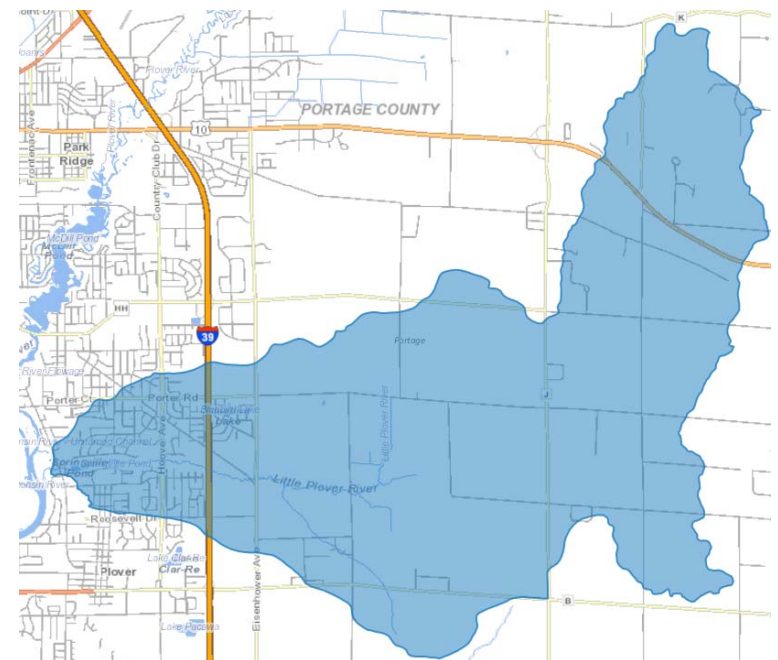
Locate



Click



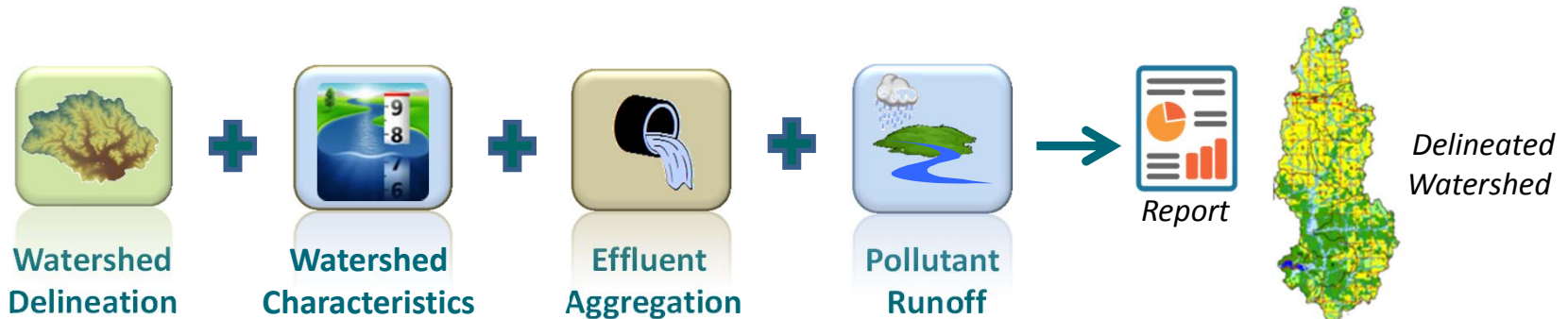
Delineate



# PRESTO-Lite Overview

## Summary:

PRESTO-Lite summarizes upstream watershed characteristics including point and nonpoint phosphorus loads, landcover, modeled stream flow, and natural community type for any user-defined watershed. The application relies on existing DNR efforts including the Pollutant Load Ratio Estimation Tool (PRESTO) desktop program and the Wisconsin Hydrography Dataset Plus.



## Technology Requirements:

Web browser (Chrome, Safari, Explorer, Firefox, etc.) with internet connectivity

## Questions:

Contact [dnrwaterqualitymodeling@wisconsin.gov](mailto:dnrwaterqualitymodeling@wisconsin.gov)

# Access the WI DNR's Watershed Restoration Map Viewer

1. Direct access: <http://dnr.wi.gov/topic/surfacewater/restorationviewer/>  
or  
Visit WDNR (<http://dnr.wi.gov/>) and search “watershed restoration viewer”
2. Access PRESTO by clicking “Launch” on any of the themes.

## Watershed Restoration Viewer

The Watershed Restoration Viewer is a DNR interactive web mapping tool for exploring water quality improvement projects across Wisconsin. When waters are listed as impaired, the DNR works to improve them through various types of federally supported frameworks such as Total Maximum Daily Loads (TMDLs). When the waters are already exceptional, the DNR protects them for future generations to enjoy.

### Features

This tool allows users to search and map DNR information regarding water quality with a focus on the places in Wisconsin where the DNR is working with partners to provide exceptional water quality. Within these areas, website visitors can explore water quality standards, the current condition of rivers and lakes, and the results of models that the DNR uses to allocate the least amount of resources for the greatest overall improvement in water quality.


### Themes

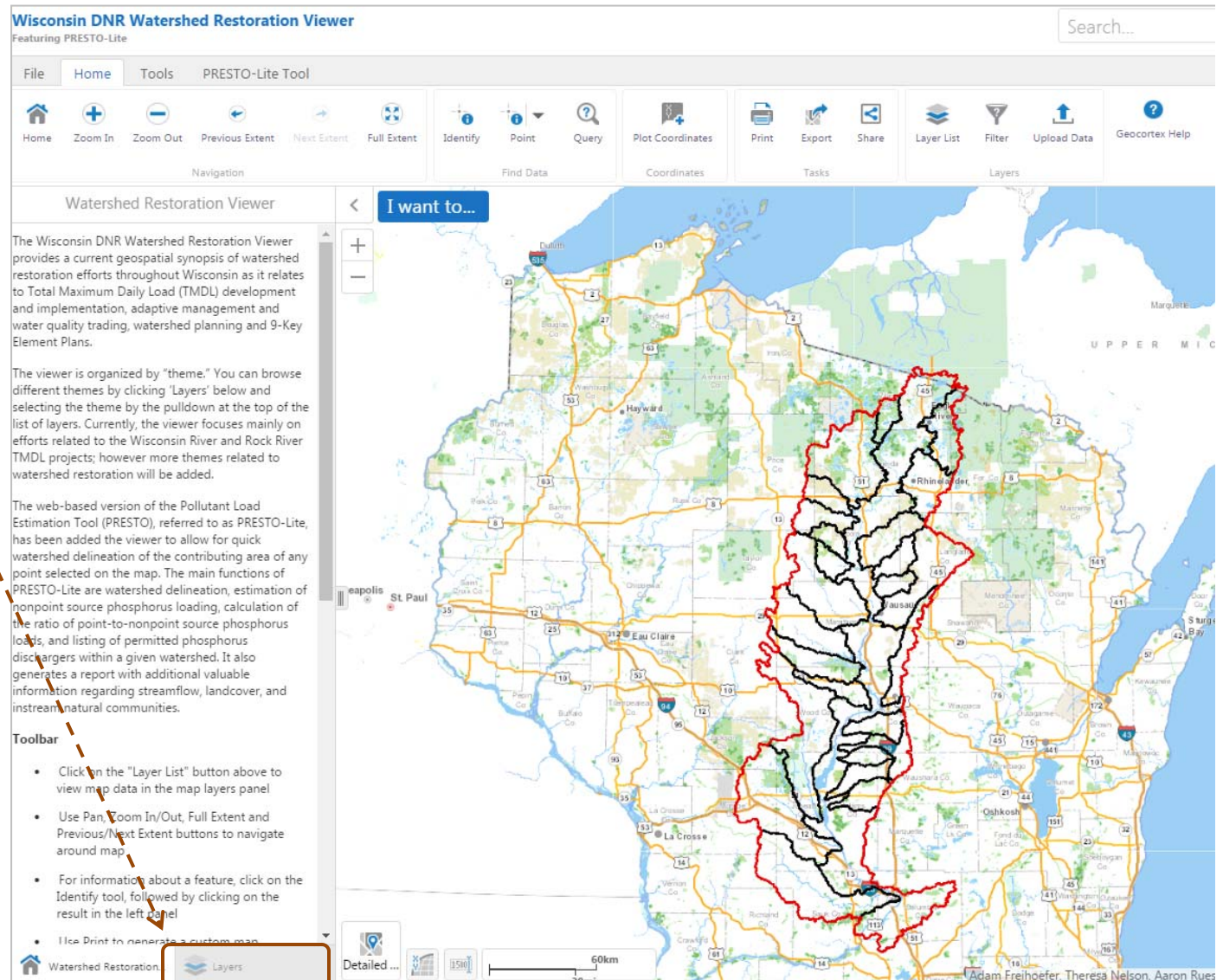
The map viewer is organized by “themes”. Select a theme to view information about the included layers.

- the **Wisconsin River TMDL** restoration viewer theme.
  - [Wisconsin River TMDL Datasets](#)
  - [Wisconsin River TMDL](#)
- the **Rock River TMDL** restoration viewer theme.
  - [Rock River TMDL](#)
- the **Healthy Watersheds Assessment** restoration viewer theme.
  - [Healthy watersheds](#)
- the **Statewide TMDL Status** restoration viewer theme.
  - [Statewide TMDL status map](#)



# Access the WI DNR's Watershed Restoration Map Viewer

3. Upon launching the WI DNR's Watershed Restoration Viewer you can simplify or enhance your view by click on the Layers  button in the lower left corner of the viewer and turn on/ off all layers



**Wisconsin DNR Watershed Restoration Viewer**  
Featuring PRESTO-Lite

File Home Tools PRESTO-Lite Tool

Home Zoom In Zoom Out Previous Extent Next Extent Full Extent Identify Point Query Plot Coordinates Print Export Share Layer List Filter Upload Data Geocortex Help

Navigation Find Data Coordinates Tasks Layers

Watershed Restoration Viewer < I want to...

The Wisconsin DNR Watershed Restoration Viewer provides a current geospatial synopsis of watershed restoration efforts throughout Wisconsin as it relates to Total Maximum Daily Load (TMDL) development and implementation, adaptive management and water quality trading, watershed planning and 9-Key Element Plans.

The viewer is organized by "theme." You can browse different themes by clicking 'Layers' below and selecting the theme by the pulldown at the top of the list of layers. Currently, the viewer focuses mainly on efforts related to the Wisconsin River and Rock River TMDL projects; however more themes related to watershed restoration will be added.

The web-based version of the Pollutant Load Estimation Tool (PRESTO), referred to as PRESTO-Lite, has been added the viewer to allow for quick watershed delineation of the contributing area of any point selected on the map. The main functions of PRESTO-Lite are watershed delineation, estimation of nonpoint source phosphorus loading, calculation of the ratio of point-to-nonpoint source phosphorus loads, and listing of permitted phosphorus dischargers within a given watershed. It also generates a report with additional valuable information regarding streamflow, landcover, and instream natural communities.

**Toolbar**

- Click on the "Layer List" button above to view map data in the map layers panel
- Use Pan, Zoom In/Out, Full Extent and Previous/Next Extent buttons to navigate around map
- For information about a feature, click on the Identify tool, followed by clicking on the result in the left panel
- Click Print to generate a custom map

Watershed Restoration Layers Detailed ... 60km Adam Freihofer, Theresa Nelson, Aaron Rues

# Locate the resource to delineate watershed

- Using the “Zoom In” button in the header ribbon, draw a box around an area from which you would like a watershed delineated

**Wisconsin DNR Watershed Restoration Viewer**  
Featuring PRESTO-Lite

Search...

File Home Tools PRESTO-Lite Tool

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Watershed Restoration Viewer

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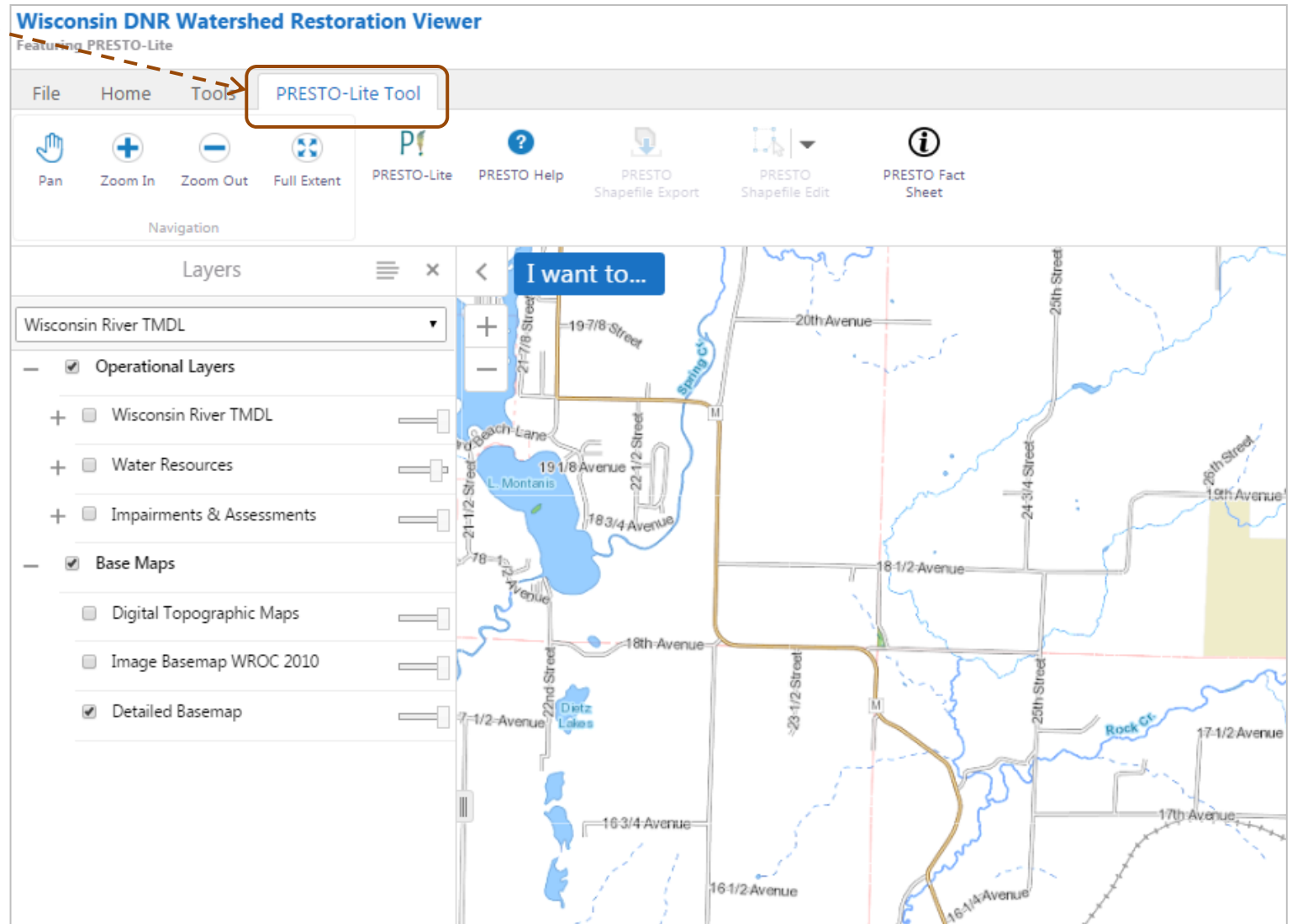
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Watershed Restoration... Layers Detailed ... 60km Adam Freihofer, Theresa Nelson, Aaron Rues

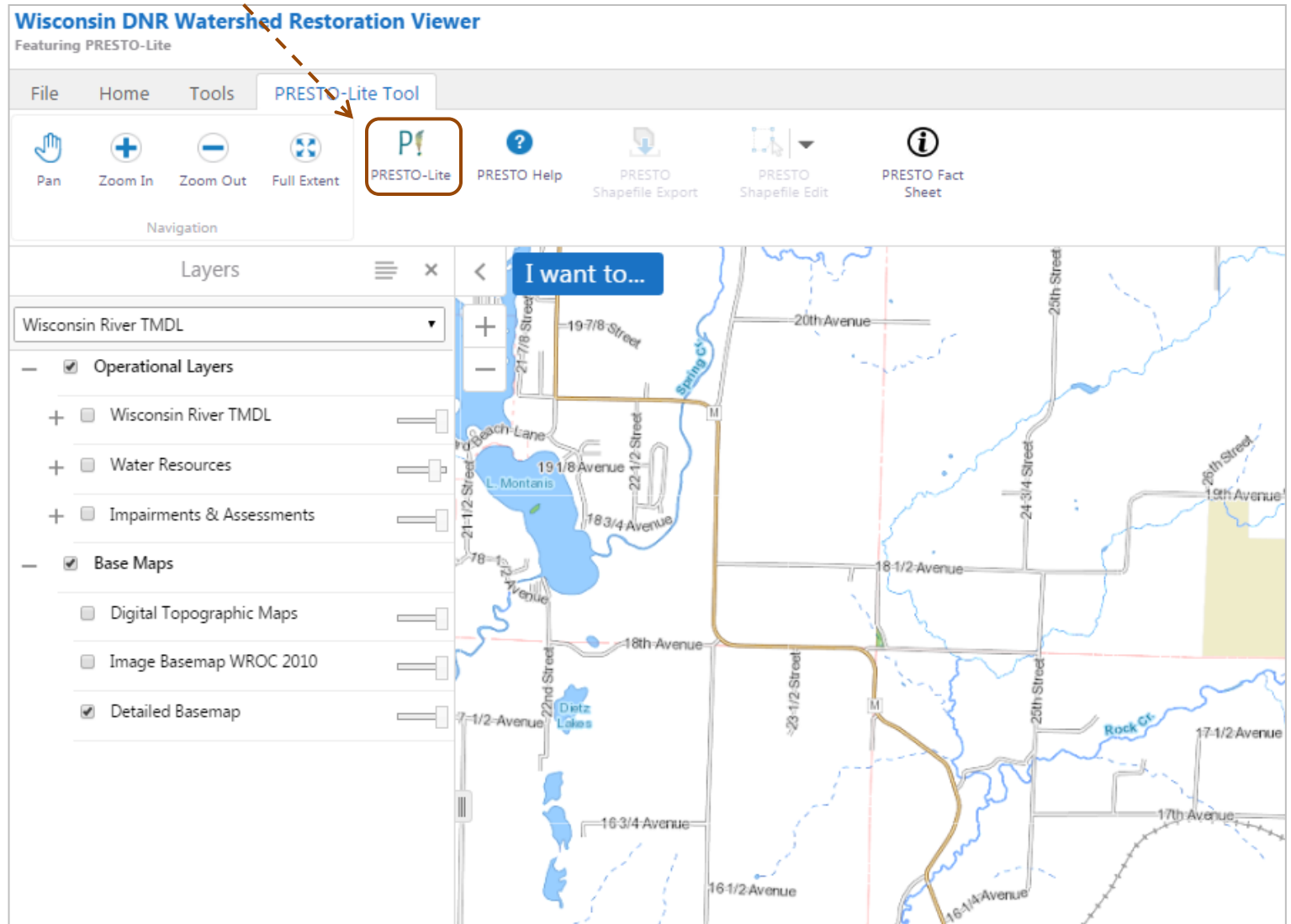
# Activate PRESTO-Lite Tool

- Once you have zoomed into a specific area for watershed delineation, select the PRESTO-Lite Tool in the ribbon.



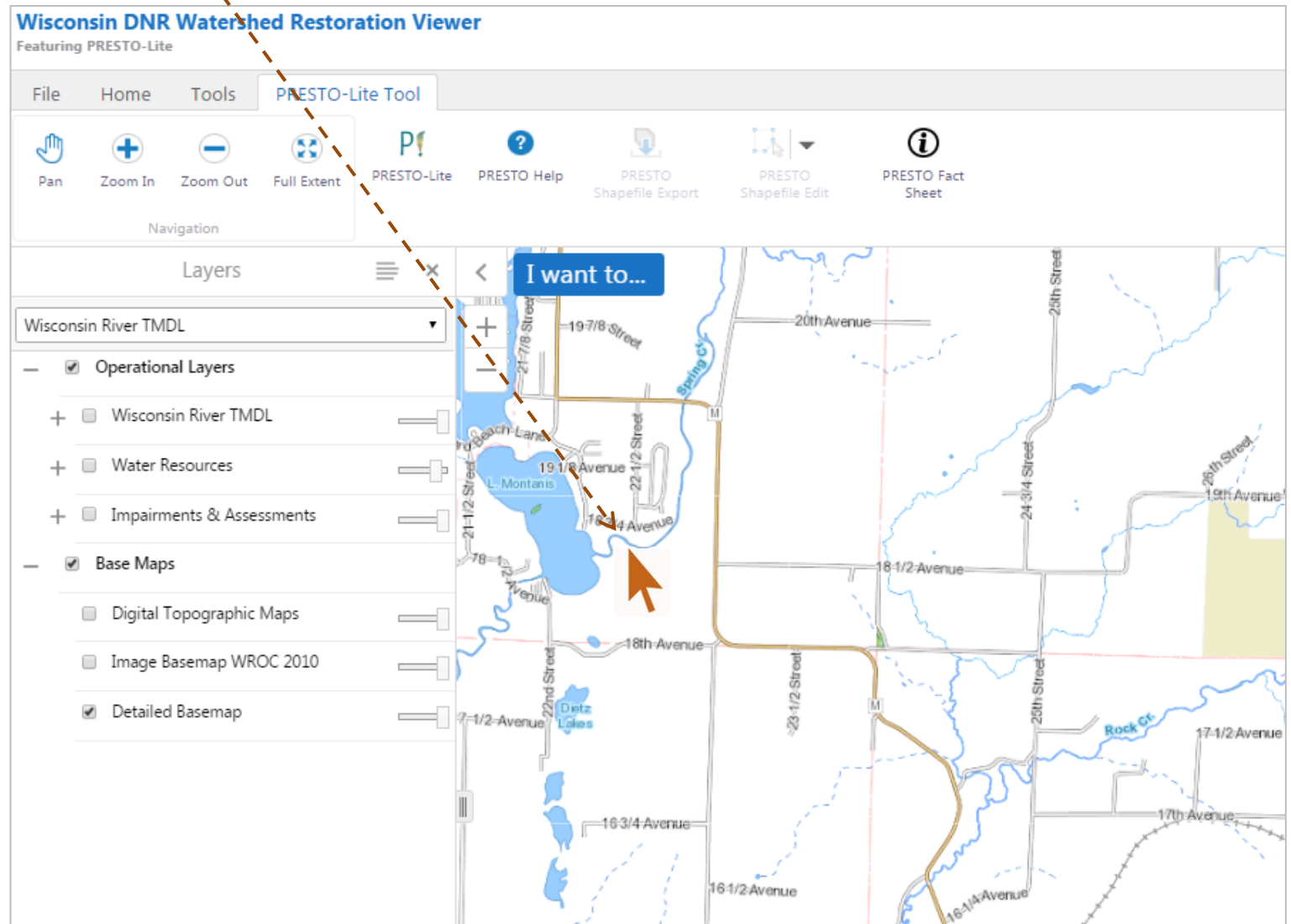
# Activate PRESTO-Lite Tool

6. Click on the PRESTO-Lite Icon



# Select location to being delineation process

7. Click on the desired point of delineation within the map from which to delineate a watershed





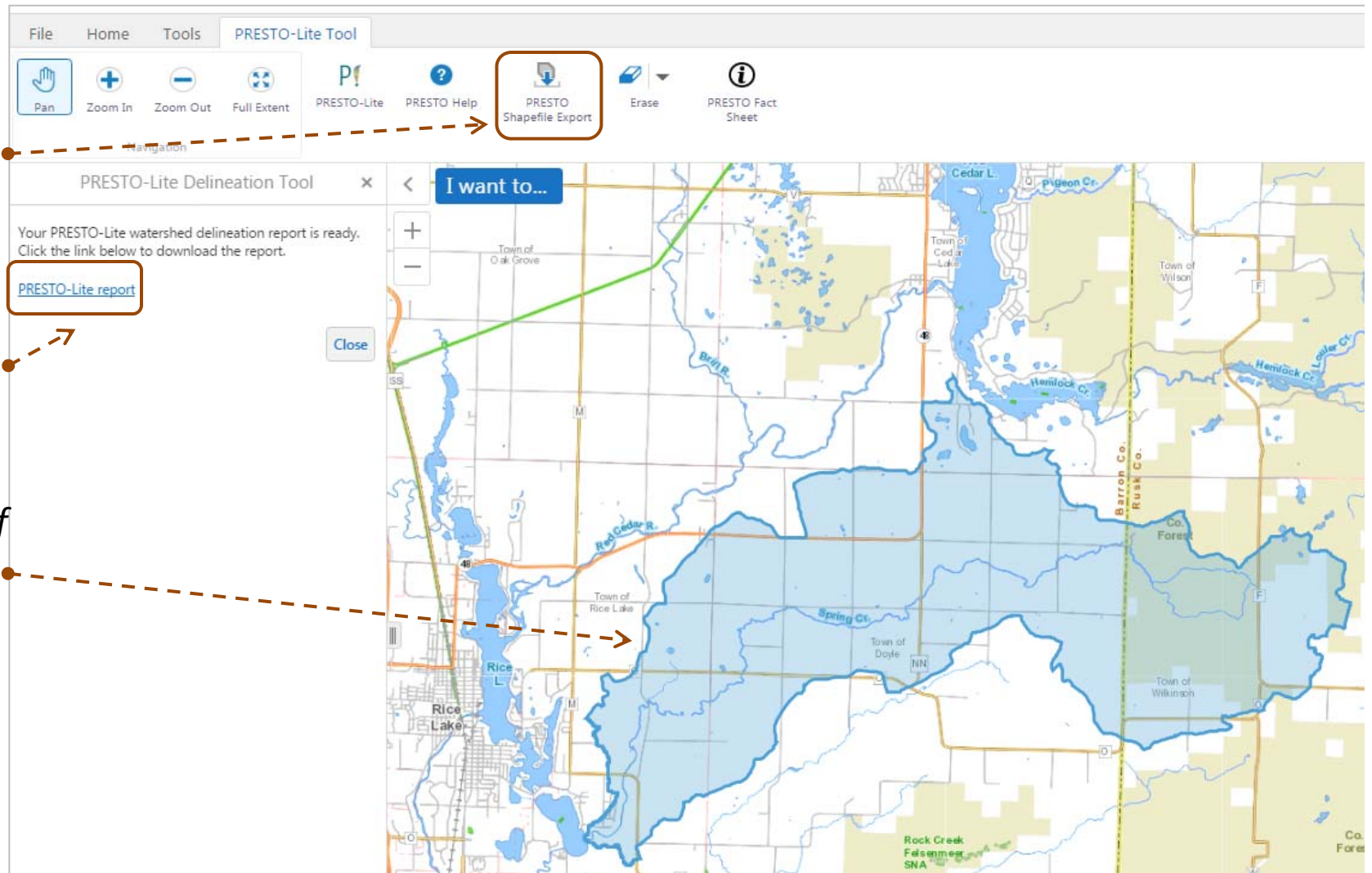
# PRESTO-Lite Results

8. Upon clicking on the point of delineation, wait for delineation to complete as noted in the viewer's table of contents (left) and a report to generate. *(if the watershed is too large, the tool will request an e-mail address to send watershed report to once the processing is complete; GIS output is unavailable for large watersheds)*

Download watershed to GIS shapefile

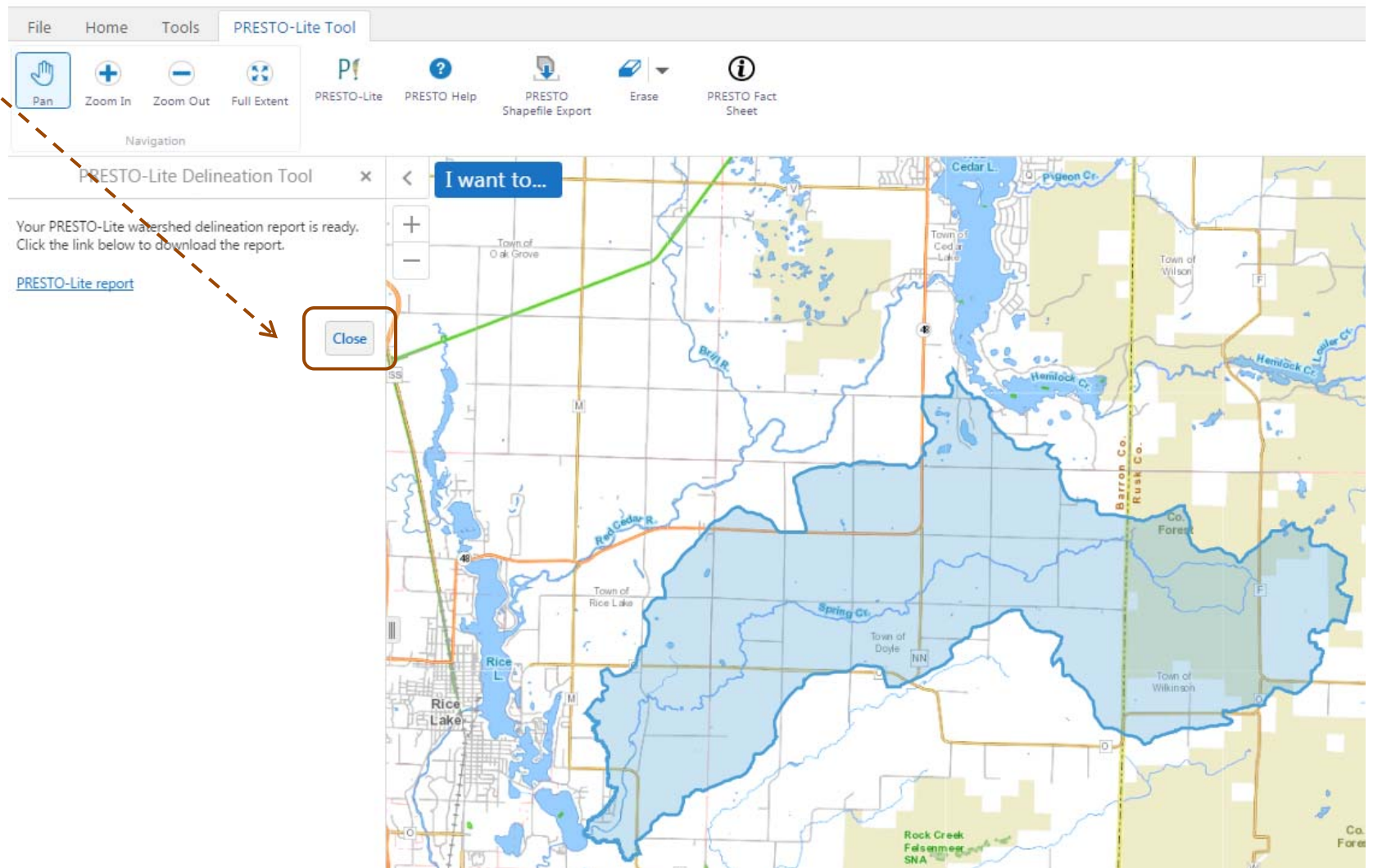
Download Watershed report

Map view of delineated watershed



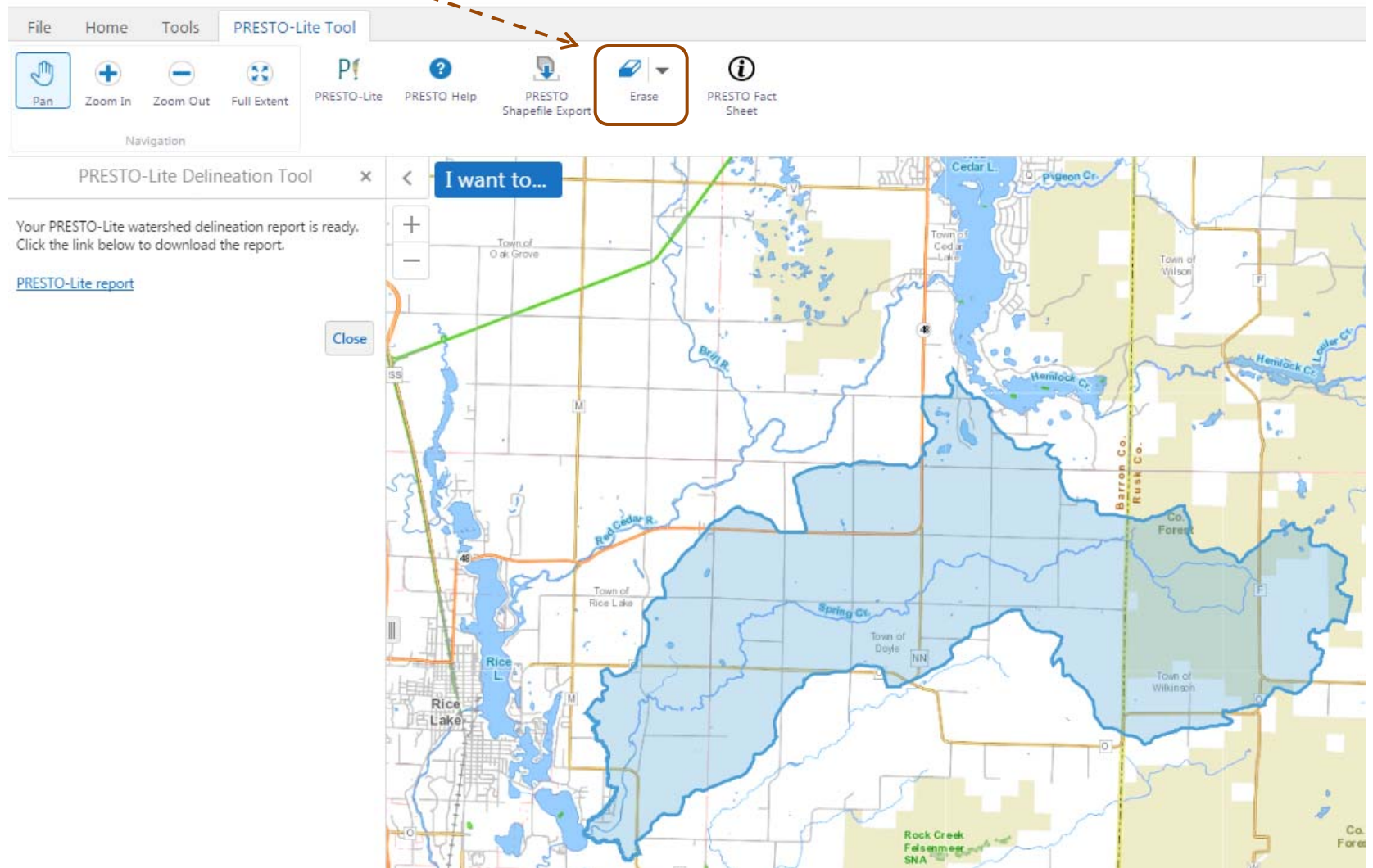
# Closing PRESTO-Lite Tool

- Once the watershed is delineated and you have obtained the outputs needed (pdf report and/or GIS shapefile of watershed), click the “close” button. You will notice that the tool will close but the delineated watershed will remain on the map.



# Closing PRESTO-Lite Tool

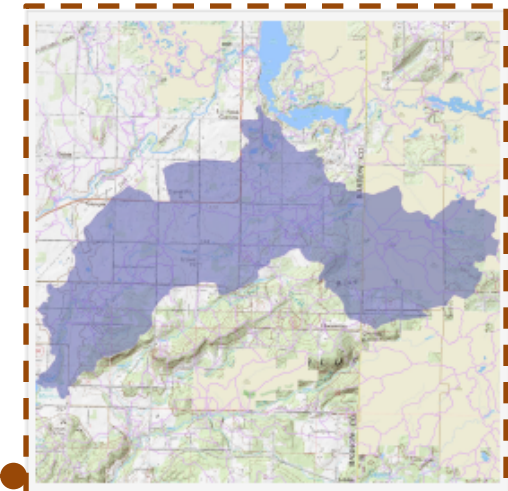
10. To eliminate the watershed outline from the map view, click on the “Erase” button in the header ribbon, select “Erase”, and click on the watershed.



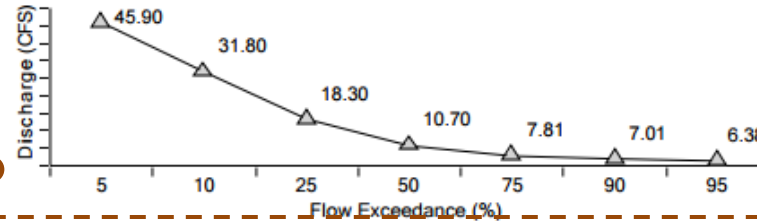
# What's in a PRESTO-Lite Report?

## PRESTO-Lite Watershed Delineation Report

Reach ID: 200166937  
 Watershed Name: Spring Creek  
 Waterbody Name: Spring Creek  
 HUC08: Red Cedar River  
 Watershed Area: 31.03 mi<sup>2</sup>  
 Average Annual Precipitation: 32.80in



### Stream Flow



Modeled streamflow estimates

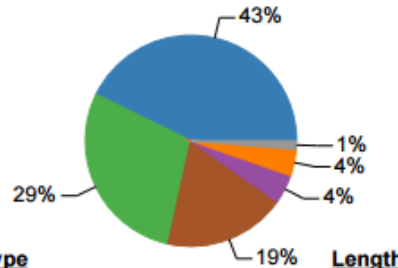
Map of watershed

Tributary classification composition throughout watershed

Landcover composition (NLCD 2006)

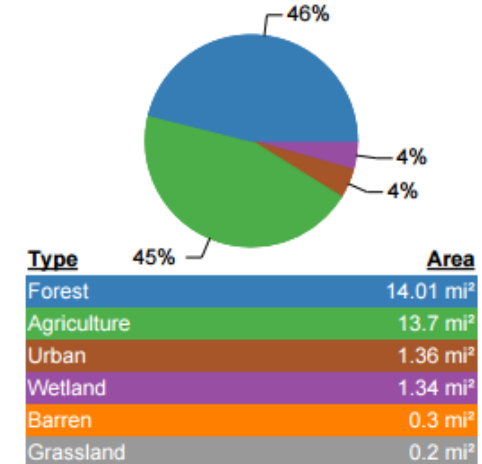
Average annual phosphorus load

### Tributary Stream Type



Type	Length
Coldwater	25608 ft
Cool-Cold Headwater	17257 ft
Cool-Cold Mainstem	11198 ft
Cold Headwater	2649 ft
Macroinvertebrates	2457 ft
Cold Mainstem	742 ft
Large River	0 ft
Warm Headwater	0 ft
Warm Mainstem	0 ft

### Landcover



### PRESTO Phosphorus Load Estimate

Avg. Annual Nonpoint Phosphorous Load (80% Confidence Interval)	3,473 (1,748 - 6,901) lbs
Number of Facilities (Individual Facility Information below)	0
Avg. Annual Point-source Phosphorous Load (2010 - 2012 total of all facilities)	0lbs
Most Likely Point : Nonpoint Phosphorous Ratio	0% : 100%
Low Estimate Point : Nonpoint Phosphorous Ratio (Adaptive Management)	0% : 100%