How to Use GLWMS to Score Projects

Saginaw Bay Watershed Partnership RCPP Training
August 6, 2015

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Institute of Water Research

Outline

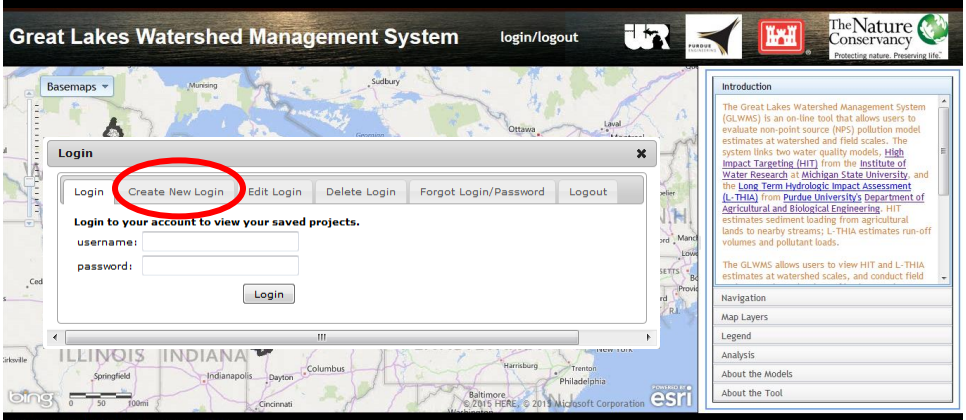
- Walkthrough example
  - Create a GLWMS Account
  - Locate a Field of Interest
  - Complete the Pre-screening Analysis
  - Complete the Scoring Analysis
- Example with multiple practices
- Accessing Saved Projects
- Tips

STEP 1: Create a GLWMS Account

Click Login/Logout

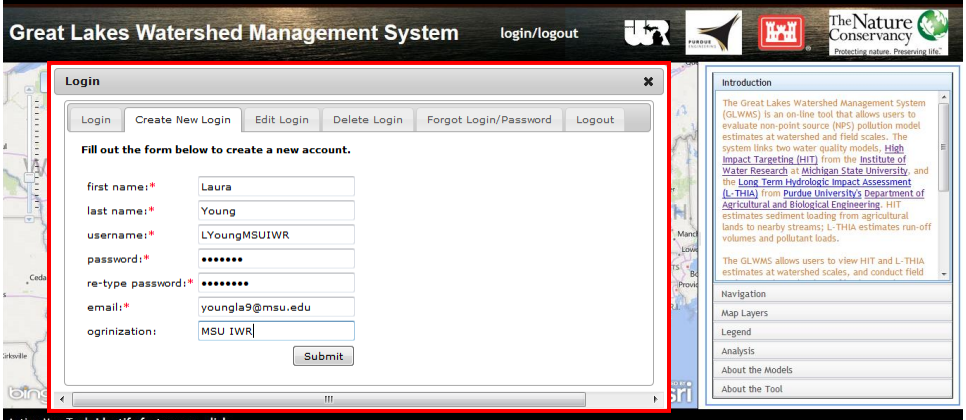
STEP 1: Create a GLWMS Account

Select Create a New Account



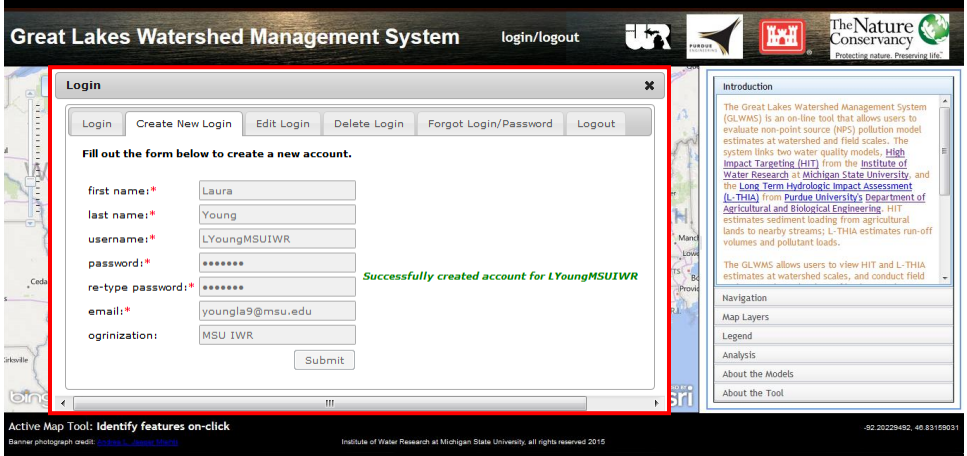
STEP 1: Create a GLWMS Account

Enter Information and Submit



STEP 1: Create a GLWMS Account

Account Created



STEP 1: Create a GLWMS Account

STEP 2: Locate a Field of Interest

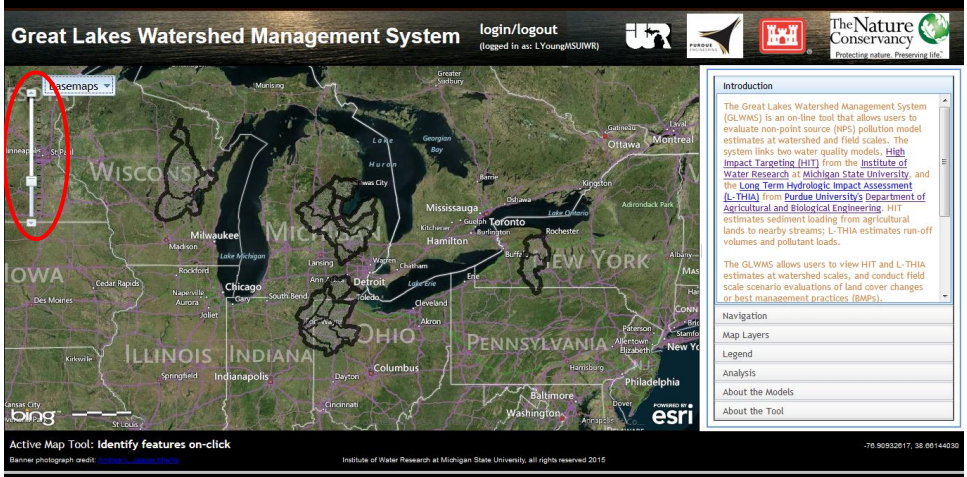
Change the Basemap – Aerial with Labels

STEP 2: Locate a Field of Interest

Aerial with Labels

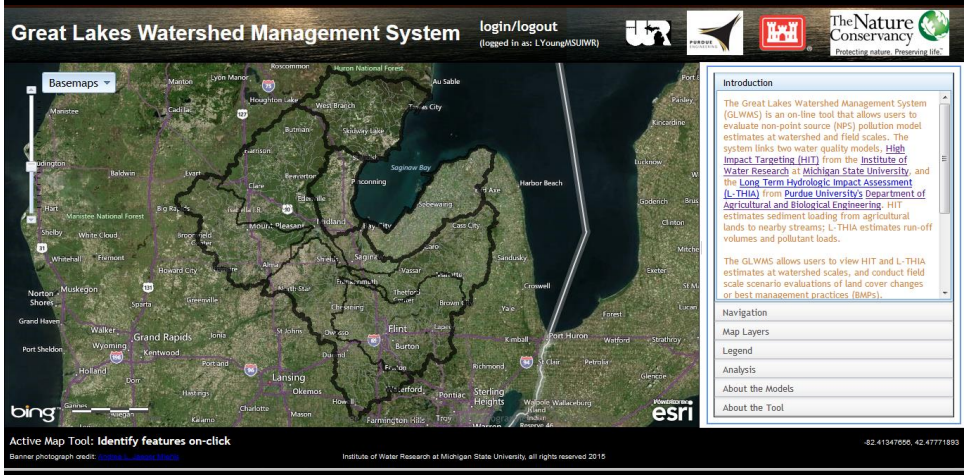
STEP 2: Locate a Field of Interest

Zoom-in on Saginaw Bay



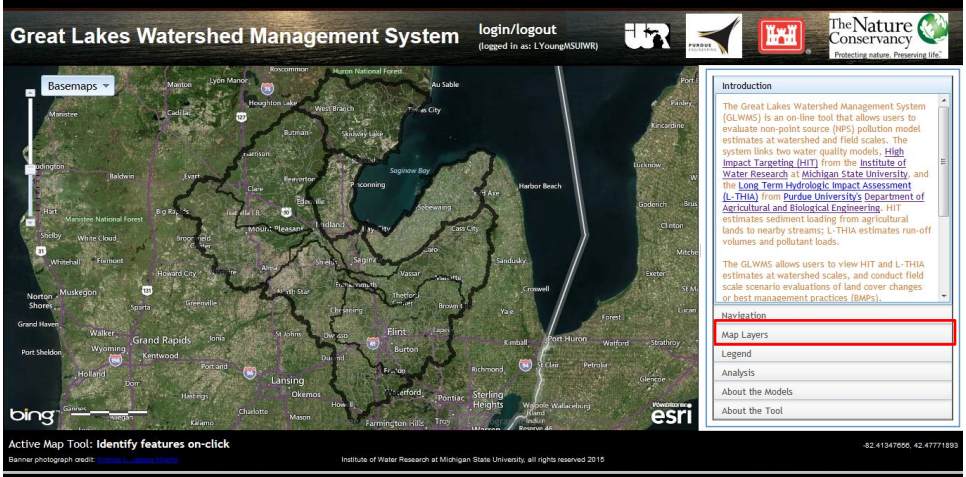
STEP 2: Locate a Field of Interest

Saginaw Bay Watershed



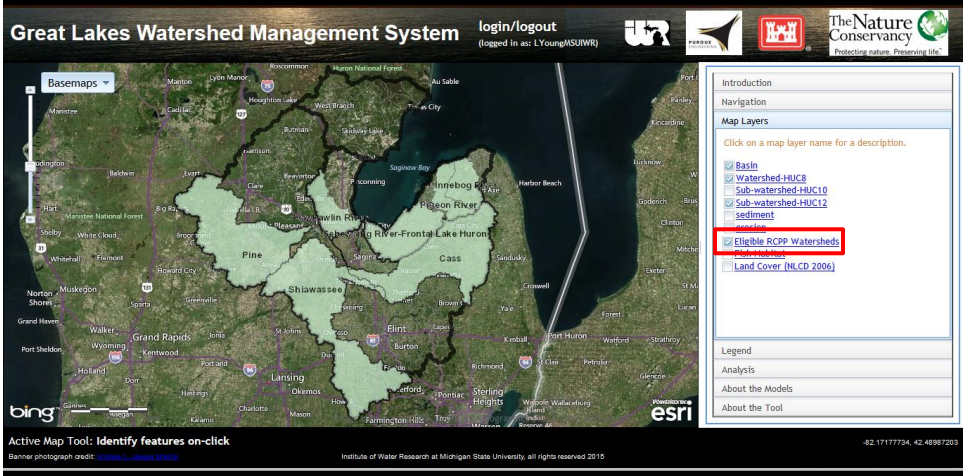
STEP 2: Locate a Field of Interest

Open Map Layers



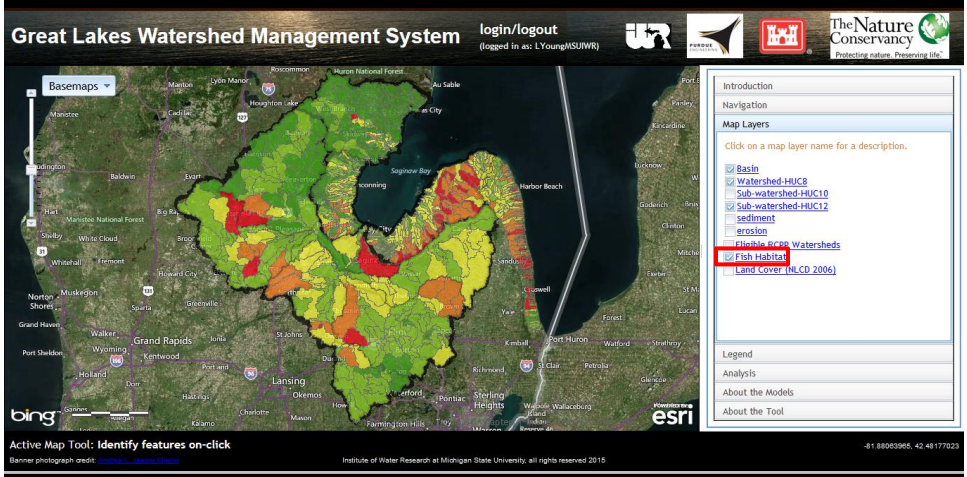
STEP 2: Locate a Field of Interest

Eligible RCPP Watersheds –
Stay within these watersheds!



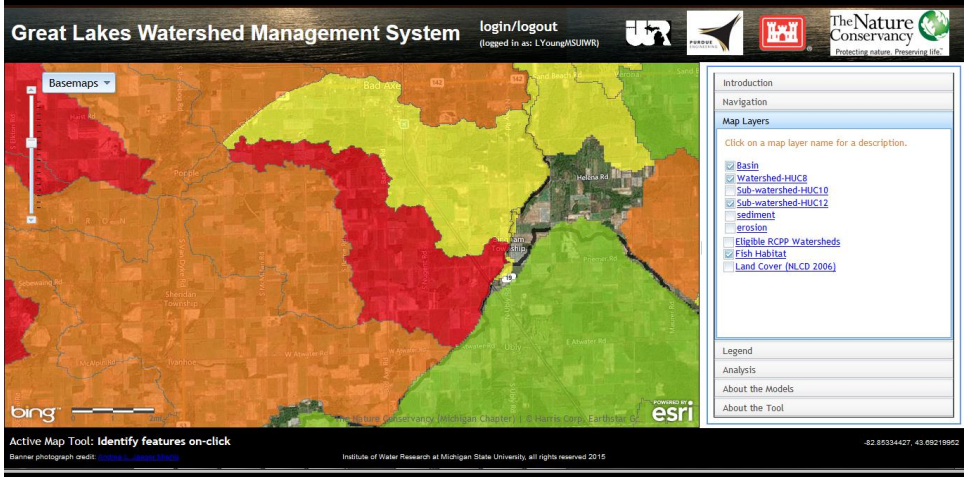
STEP 2: Locate a Field of Interest

Find Potential High-Scoring Areas
Fish Habitat Layer



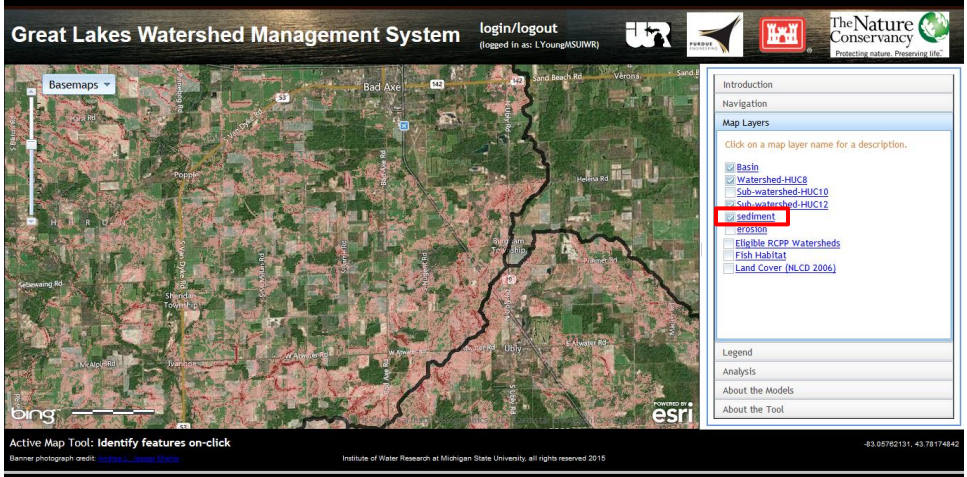
STEP 2: Locate a Field of Interest

Find Potential High-Scoring Areas
Fish Habitat Layer



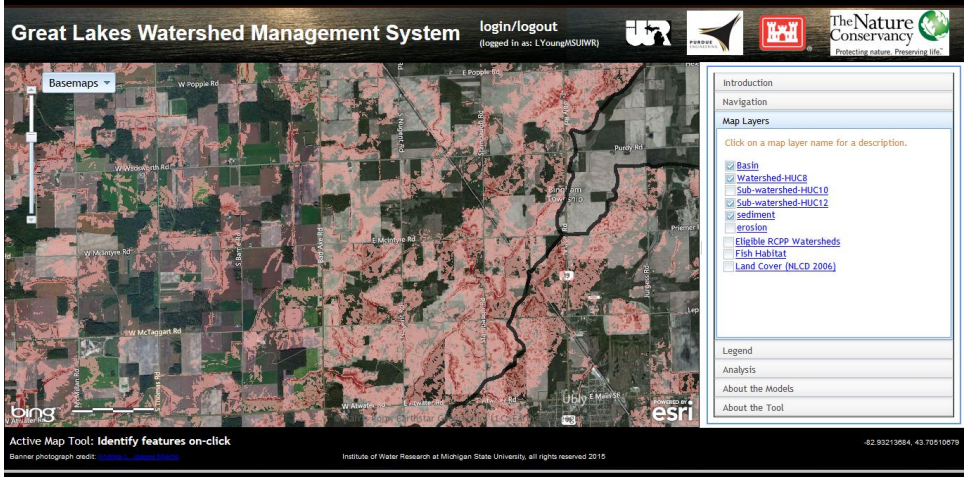
STEP 2: Locate a Field of Interest

Find Potential High-Scoring Areas
Sediment Layer



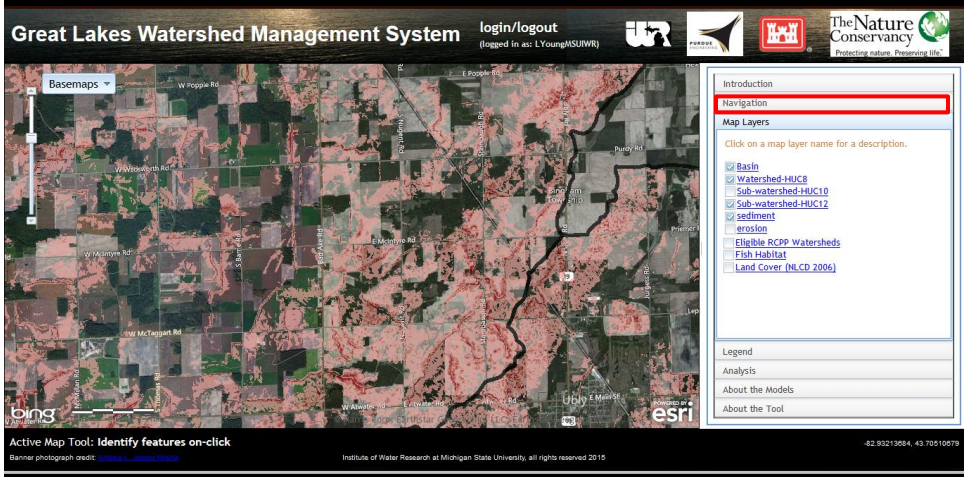
STEP 2: Locate a Field of Interest

Find Potential High-Scoring Areas
Sediment Layer



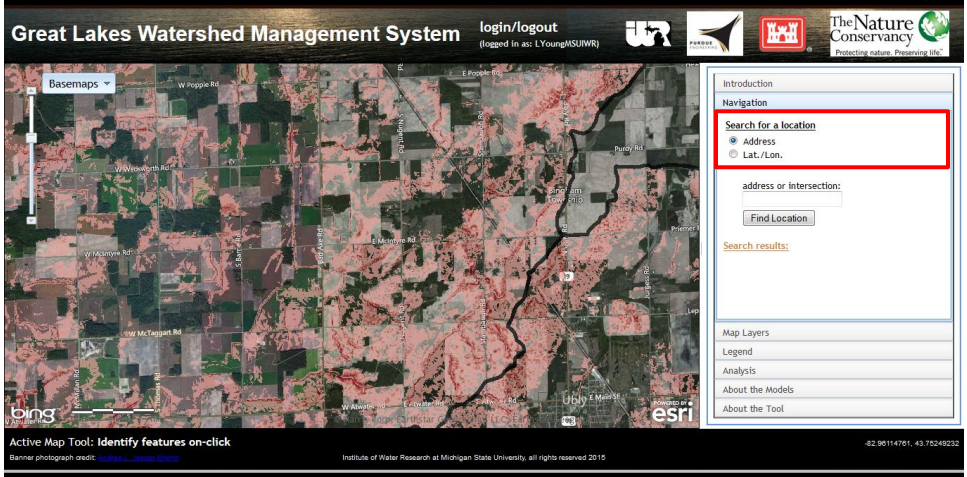
STEP 2: Locate a Field of Interest

Search by Location –
Open Navigation Tab



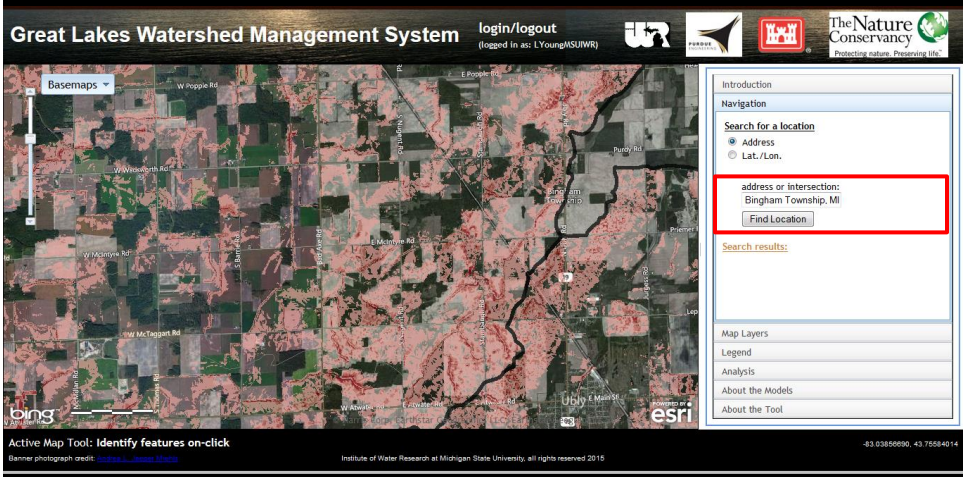
STEP 2: Locate a Field of Interest

Search by Address or Coordinates



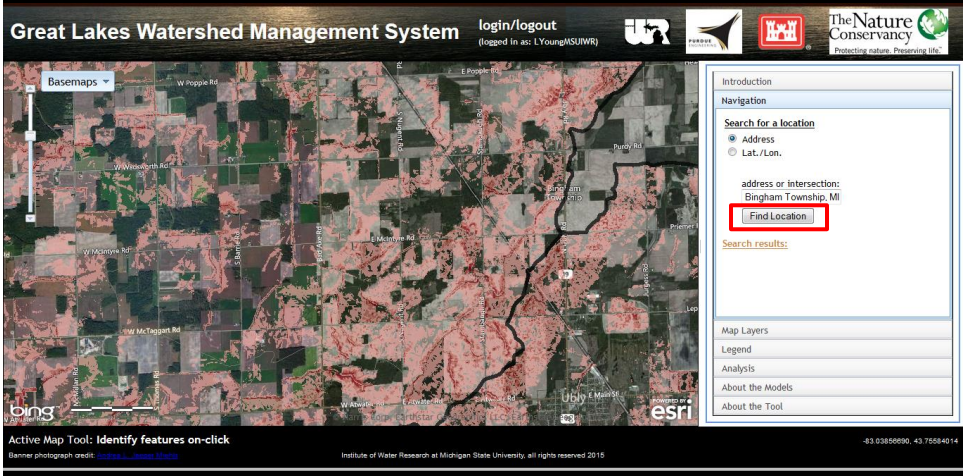
STEP 2: Locate a Field of Interest

Enter Address or Intersection



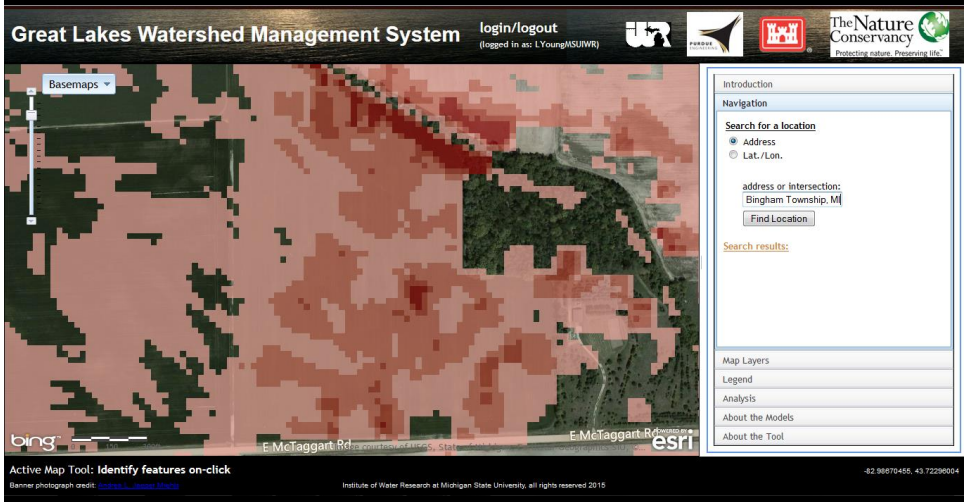
STEP 2: Locate a Field of Interest

Find Location Button



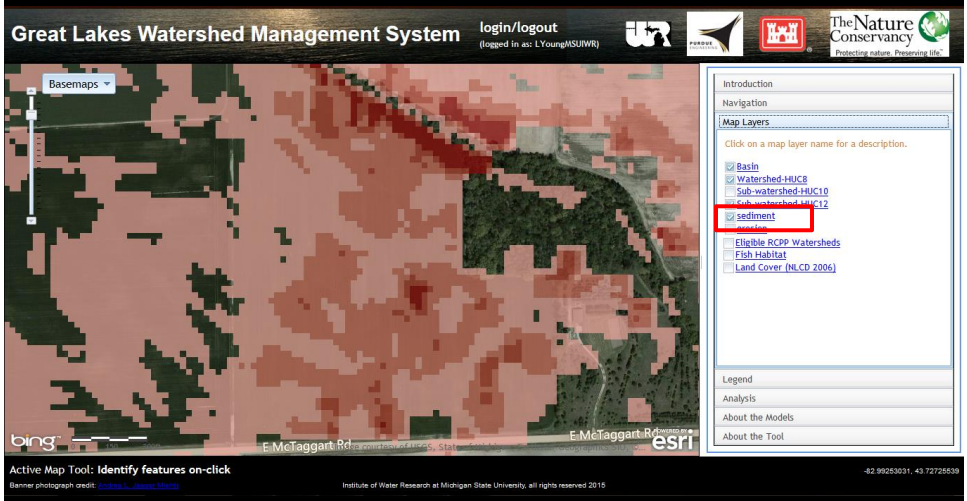
STEP 2: Locate a Field of Interest

Site Found



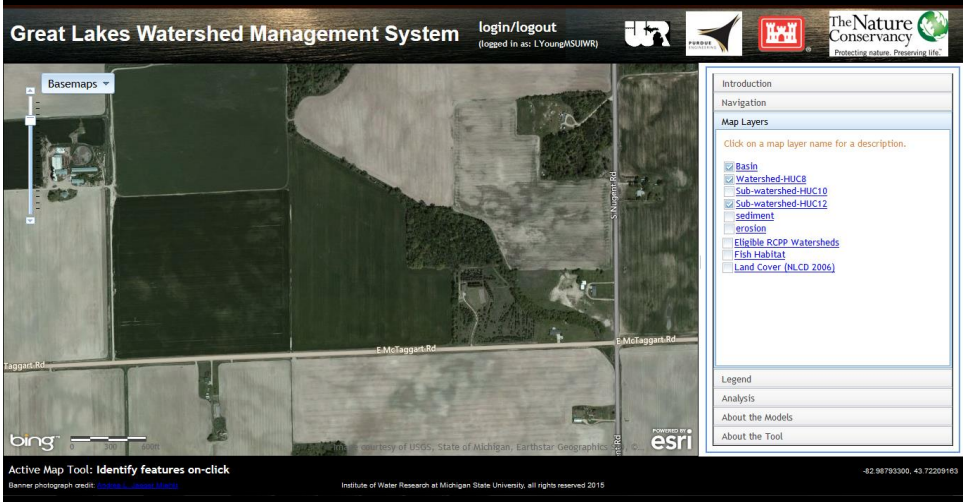
STEP 2: Locate a Field of Interest

Turn off Sediment Layer



STEP 2: Locate a Field of Interest

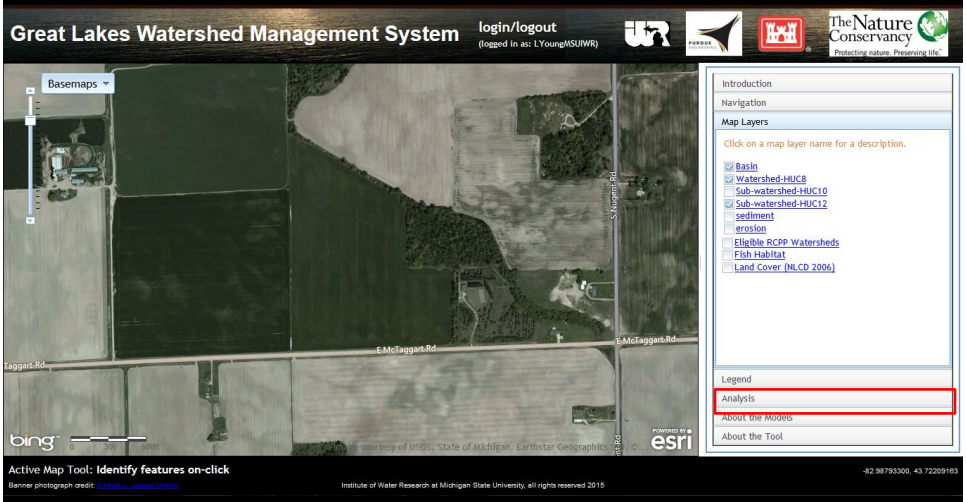
Turn off Sediment Layer



STEP 2: Locate a Field of Interest

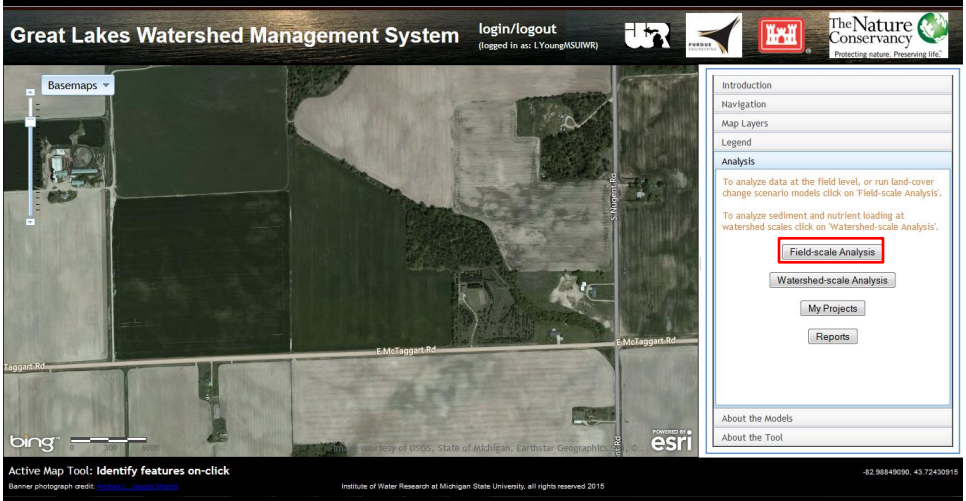
STEP 3: Complete the Pre-screening Process

Open Analysis Tab



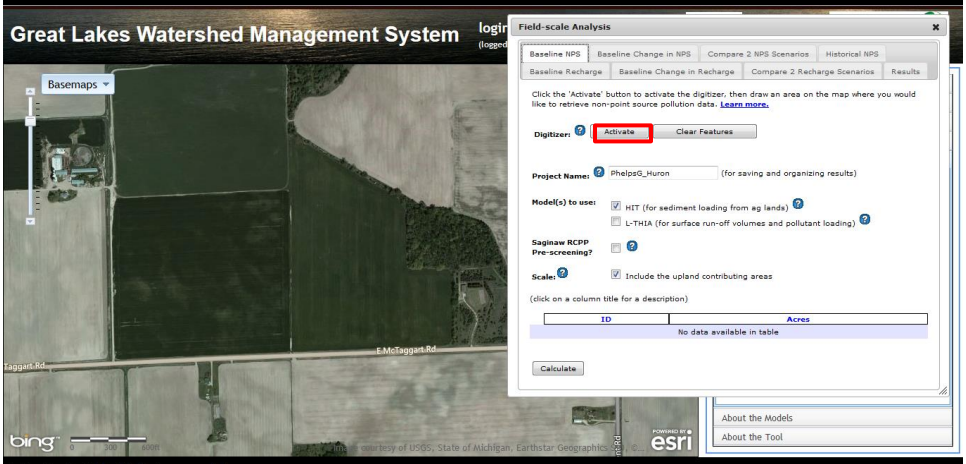
STEP 3: Complete the Pre-screening Process

Select Field-scale Analysis



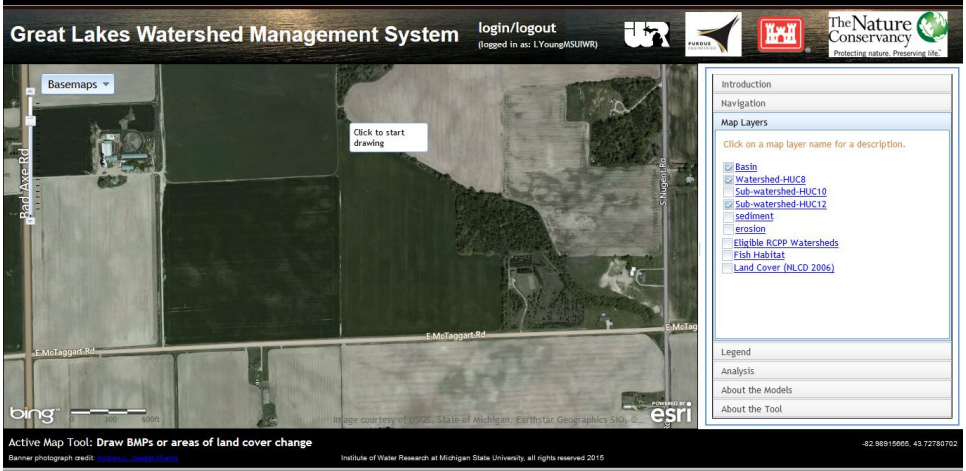
STEP 3: Complete the Pre-screening Process

Activate Digitizer



STEP 3: Complete the Pre-screening Process

Digitize Field

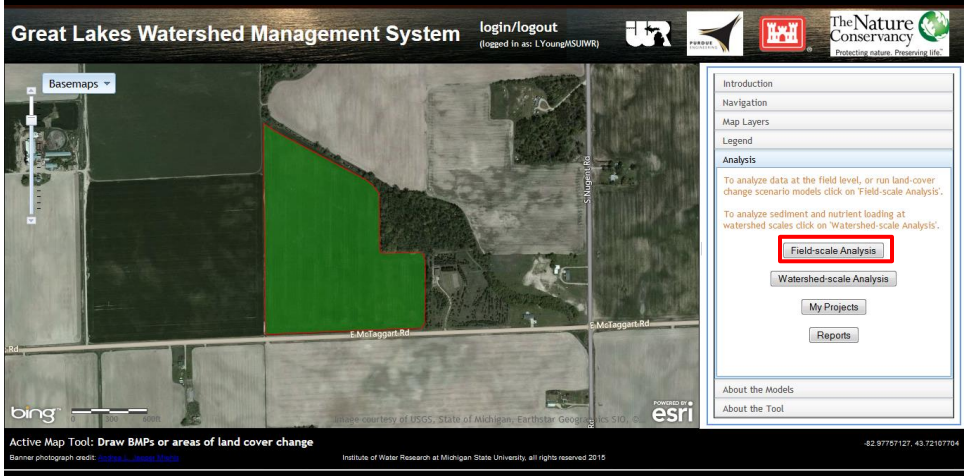


STEP 3: Complete the Pre-screening Process

Double Click to Complete

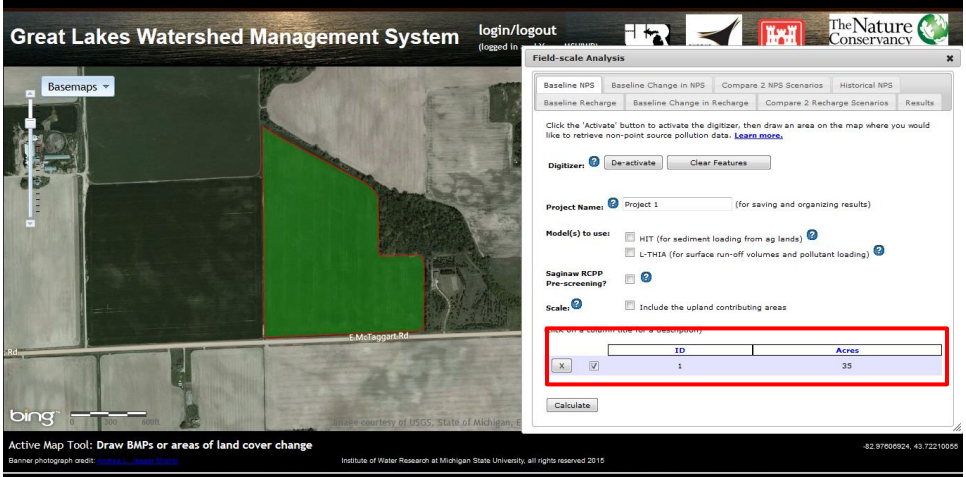
STEP 3: Complete the Pre-screening Process

Return to Field-Scale Analysis



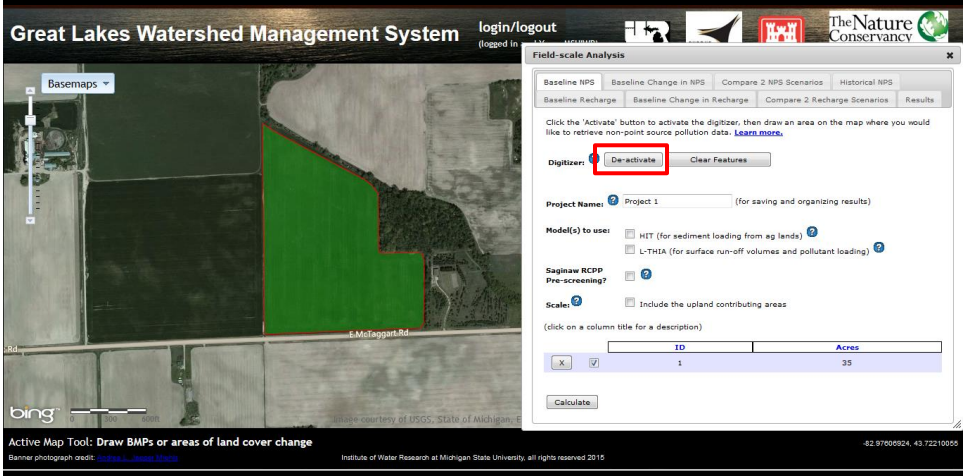
STEP 3: Complete the Pre-screening Process

Verify Acreage



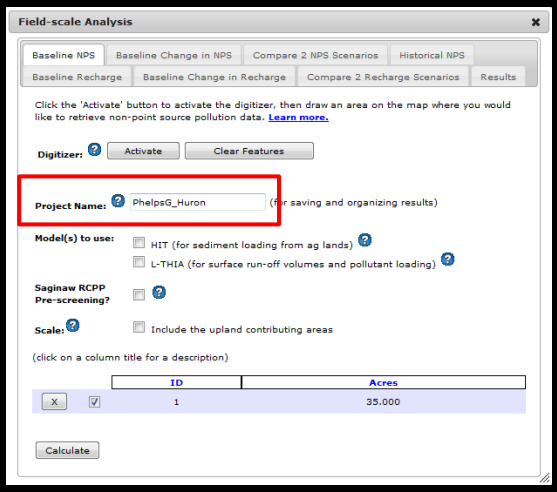
STEP 3: Complete the Pre-screening Process

Deactivate Digitizer



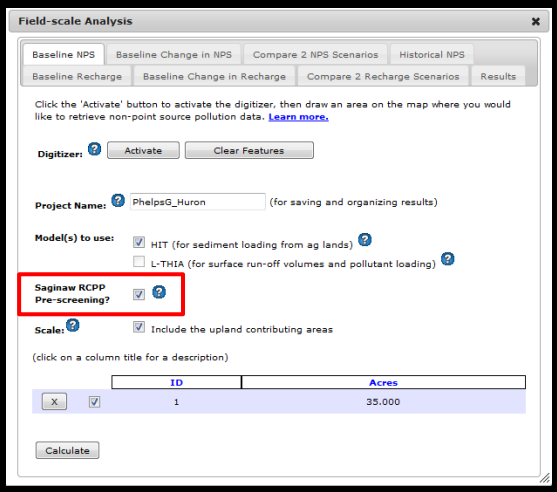
STEP 3: Complete the Pre-screening Process

Enter a Project Name



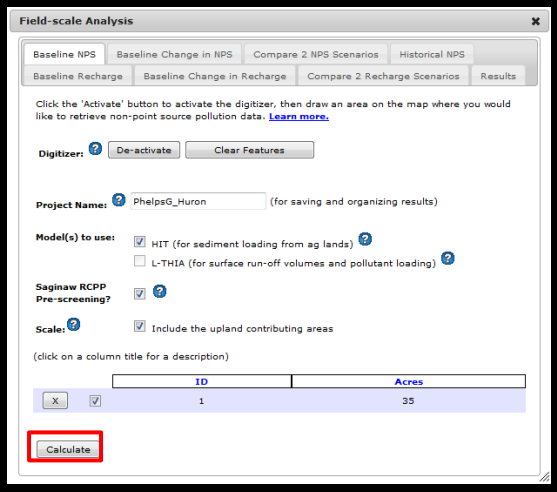
STEP 3: Complete the Pre-screening Process

Select Saginaw RCPP Pre-Screening



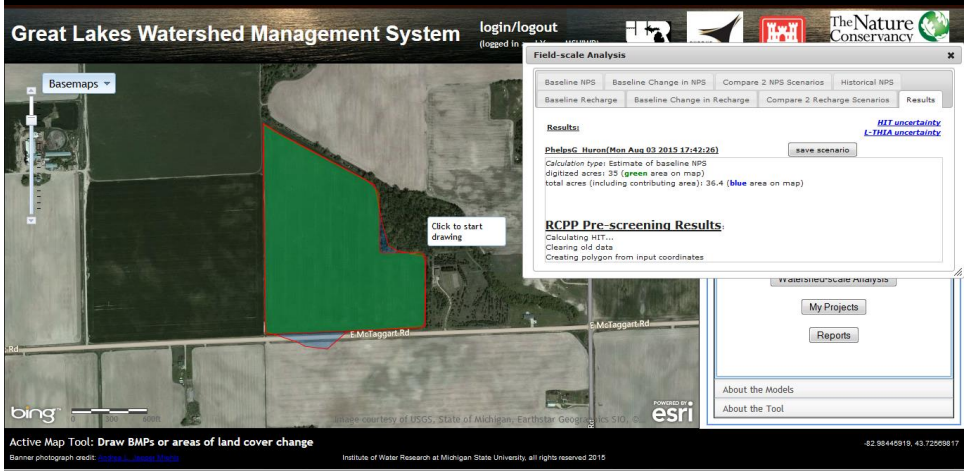
STEP 3: Complete the Pre-screening Process

Select “Calculate”



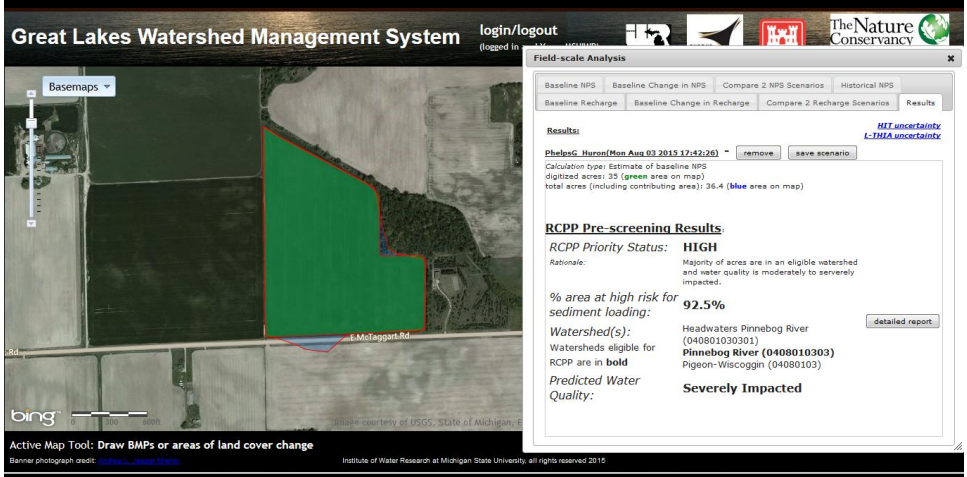
STEP 3: Complete the Pre-screening Process

Wait for Calculation to Complete



STEP 3: Complete the Pre-screening Process

Pre-Screening Results



STEP 3: Complete the Pre-screening Process

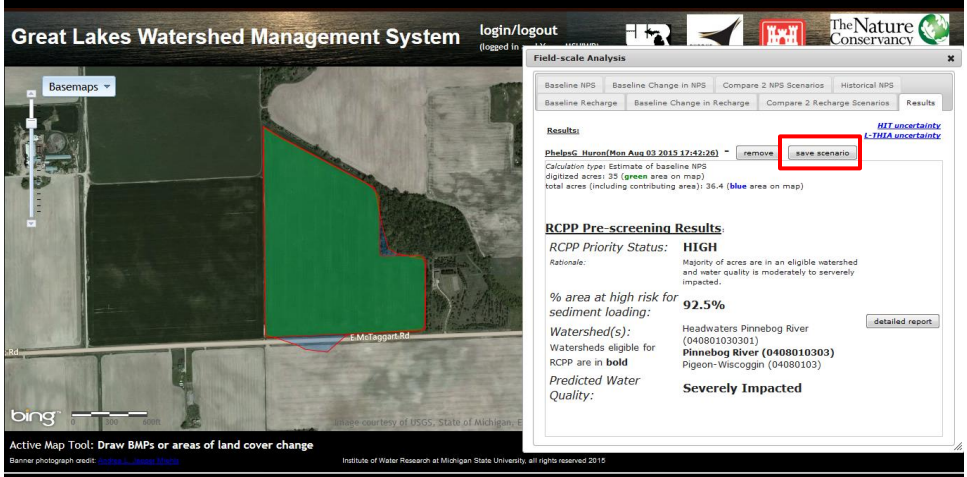
Priority Level

Medium/High Priority > Proceed

Low Priority > Find new field

STEP 3: Complete the Pre-screening Process

Save Scenario

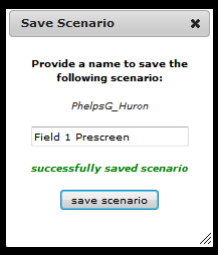


STEP 3: Complete the Pre-screening Process

Save Scenario

"Field Location Descriptor Prescreen"

Field Location Descriptor Examples
- Field X
- Intersection
- Other formats

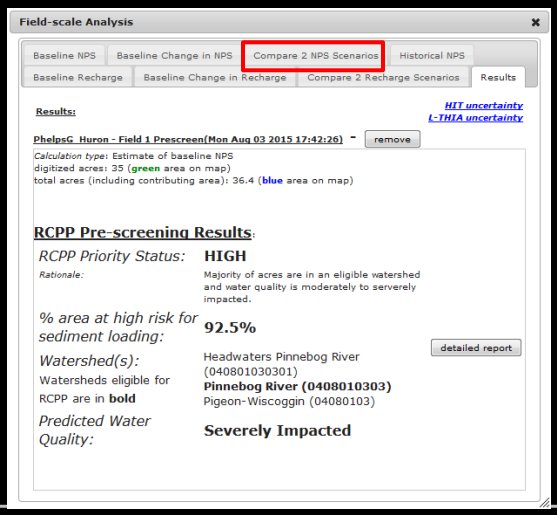


STEP 3: Complete the Pre-screening Process

STEP 4: Complete the Scoring Process

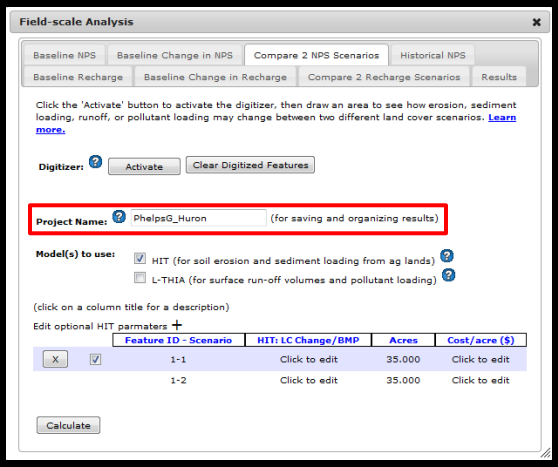
(Only if medium or high priority)

Select Compare 2 NPS Scenarios



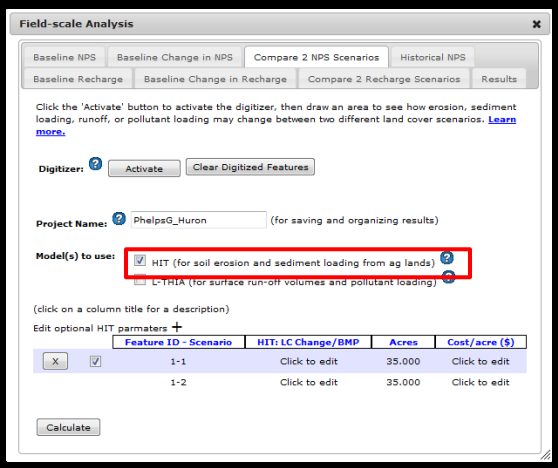
STEP 4: Complete the Scoring Process

Project Name already filled-in



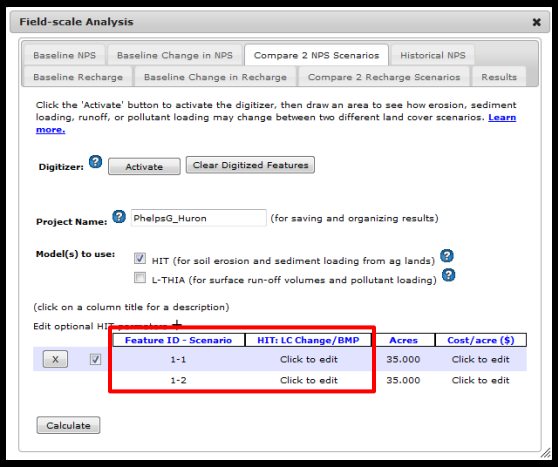
STEP 4: Complete the Scoring Process

Select HIT Model



STEP 4: Complete the Scoring Process

Scenarios 1-1 and 1-2

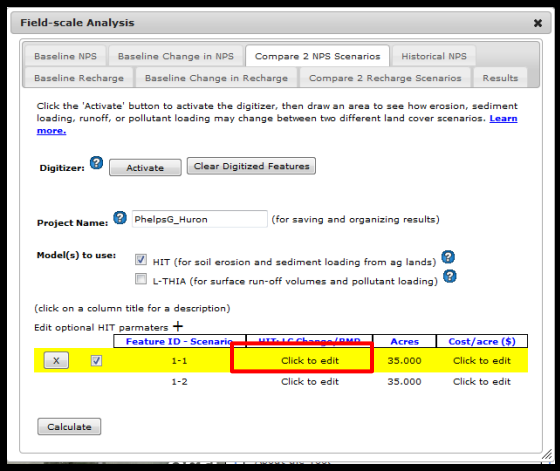


STEP 4: Complete the Scoring Process

Selecting GLWMS Land Covers and BMPs

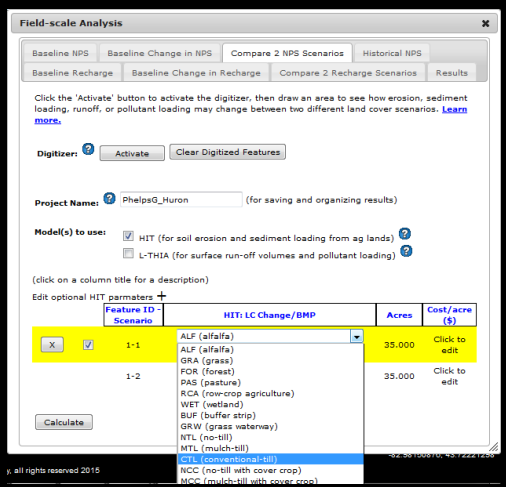
PRACTICE CODE	EQIP PRACTICE	ASSOCIATED PRACTICE(S) IN GLWMS
327	Conservation Cover	Grass (GRA)
329	Residue and Tillage Management, No-till	No-till (NTL)
340	Cover Crop	Choose appropriate option as the BMP: Conventional till with cover crop (CCC) No-till with cover crop (NCC) Mulch till with cover crop (MCC)
345	Residue and Tillage Management, Reduced-till	Mulch-till (MTL)
390	Riparian Herbaceous Cover	Buffer Strip (BUF) Make sure the polygon is only drawn along the riparian area.
393	Filter Strip	Buffer Strip (BUF) Make sure the polygon is only drawn along the riparian area.

Scenario 1-1 is the CURRENT land condition



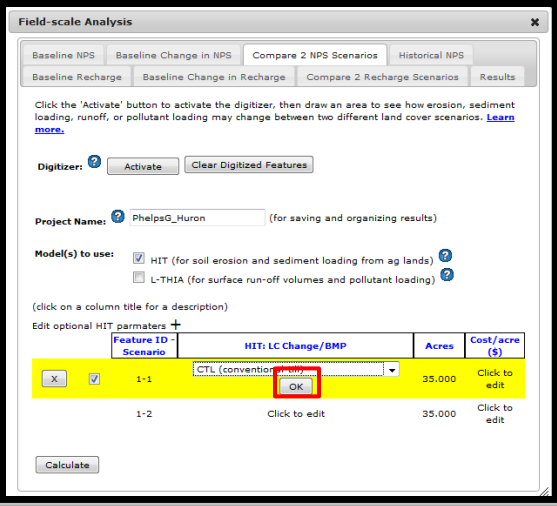
STEP 4: Complete the Scoring Process

Select from Dropdown Menu



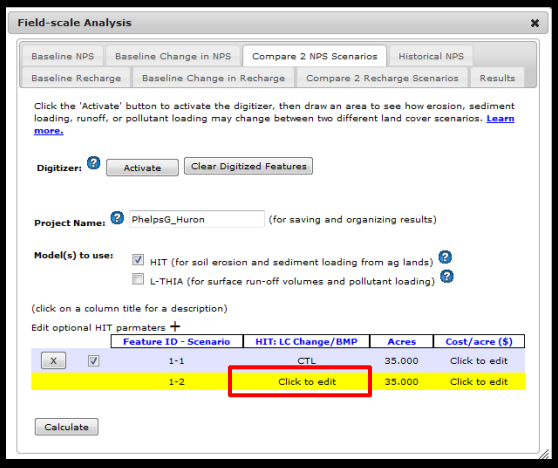
STEP 4: Complete the Scoring Process

Click “OK” Button



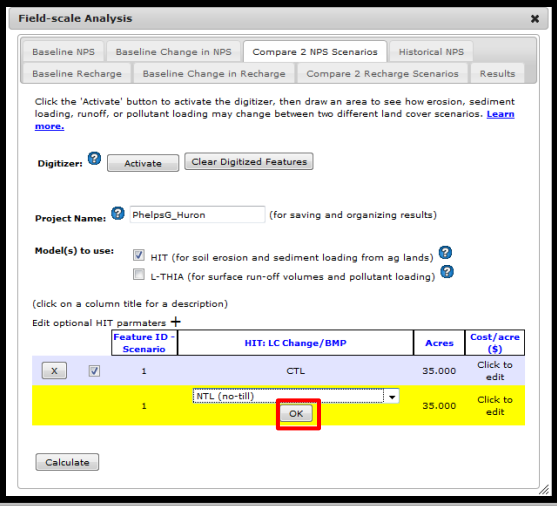
STEP 4: Complete the Scoring Process

Scenario 1-2 is the BMP



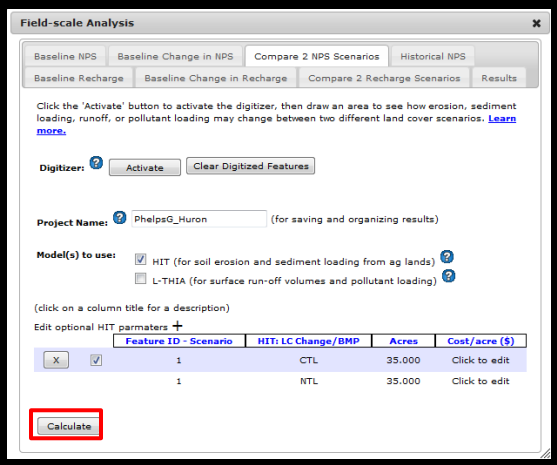
STEP 4: Complete the Scoring Process

Select BMP and "OK" Button



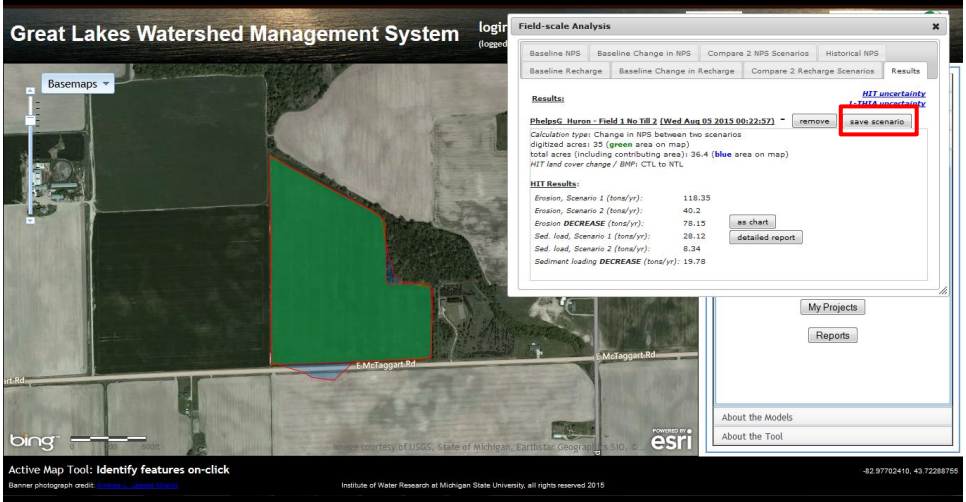
STEP 4: Complete the Scoring Process

Select Calculate



STEP 4: Complete the Scoring Process

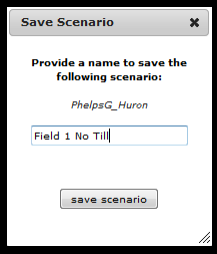
Scoring Results
Save scenario first



STEP 4: Complete the Scoring Process

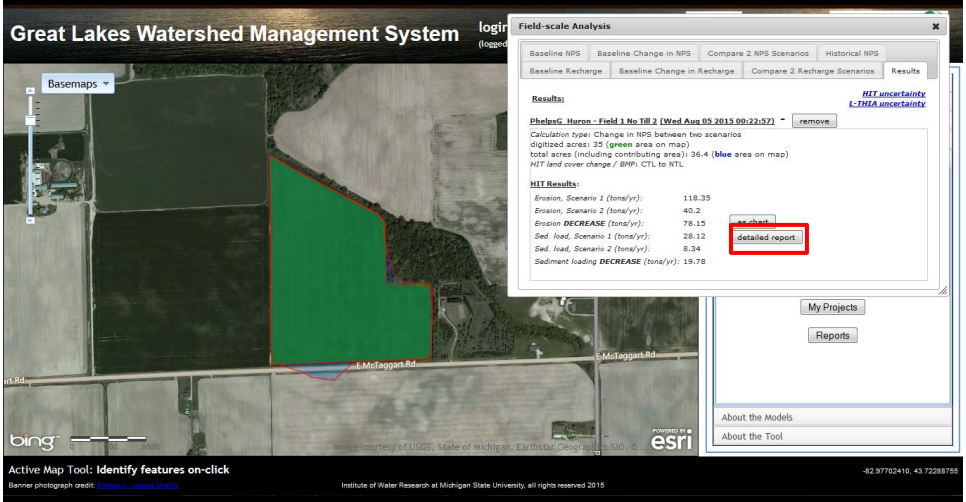
Save Scenario

Use same field descriptor
Include BMP(s) in the save name



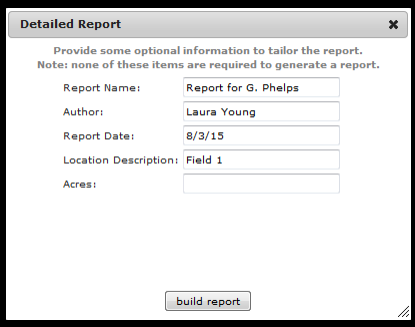
STEP 4: Complete the Scoring Process

Generate a Detailed Report



STEP 4: Complete the Scoring Process

Fill Out Report Information and Build Report



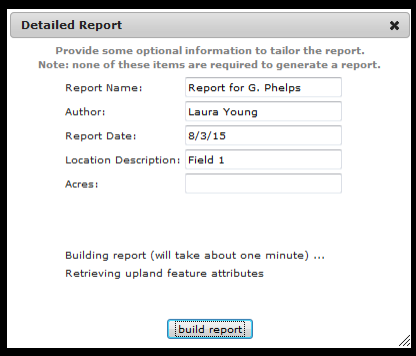
Report Name: Include Producer name/code

Location: Optional. Your preference.

Acres: If digitized acres (green polygon) differs from actual acres, enter in true acreage here

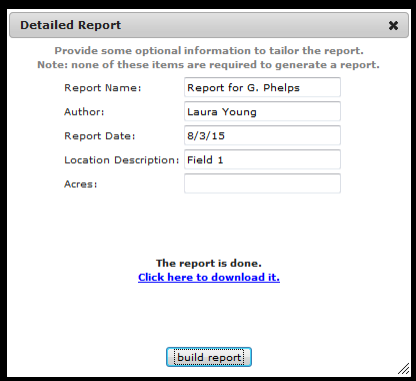
STEP 4: Complete the Scoring Process

Wait for Report to Complete! –
May take over a minute



STEP 4: Complete the Scoring Process

Download the Report



STEP 4: Complete the Scoring Process

Cover Sheet with Final Scoring

8/3/15
Laura Young

Report 1 for G. Phelps

Location

Description: Field 1 No Till
County: Huron
Township/Range: T15N R13E
Watershed (HUC8): Pigeon-Wiscoggin (04080103)

Acres
Total Field Acres: 35.0
Total Contributing Acres: 36.4
Acres by HIT BMP:
- *no-till*: 35.0

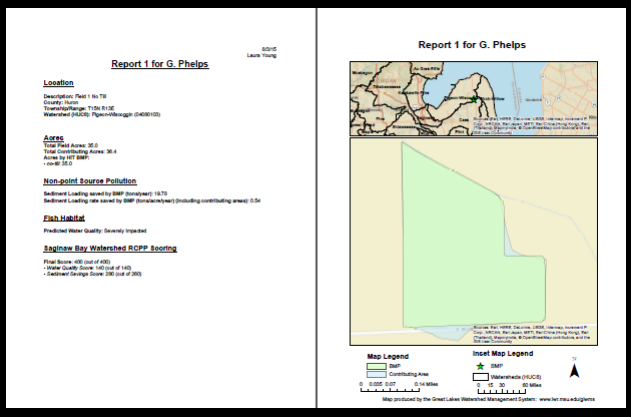
Non-point Source Pollution

Saginaw Bay Watershed RCPP Scoring

Final Score: 400 (out of 400)
- *Water Quality Score*: 140 (out of 140)
- *Sediment Savings Score*: 260 (out of 260)

STEP 4: Complete the Scoring Process

Report Maps

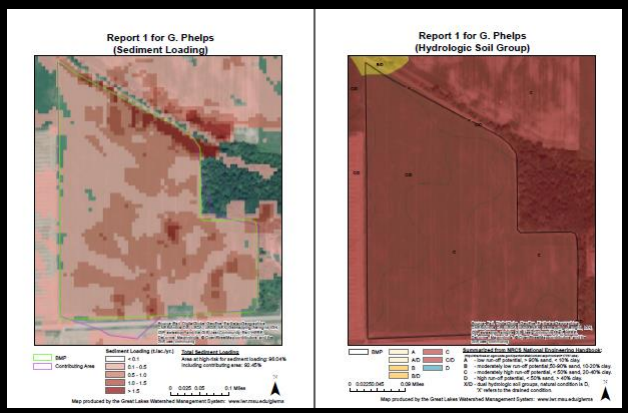


STEP 4: Complete the Scoring Process

Report Maps

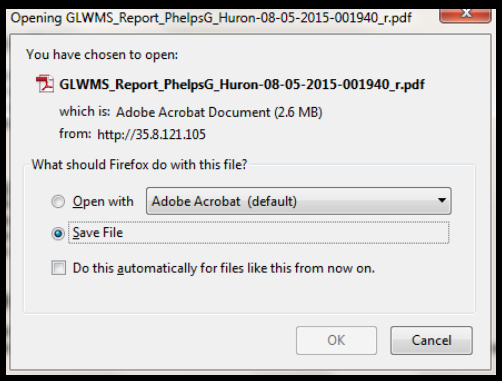
STEP 4: Complete the Scoring Process

Report Maps



STEP 4: Complete the Scoring Process

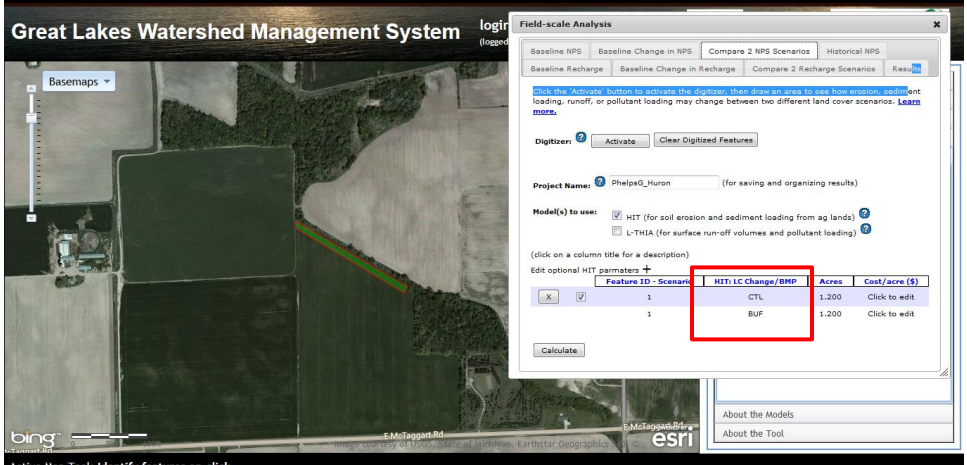
Save the Report as PDF



New Example:

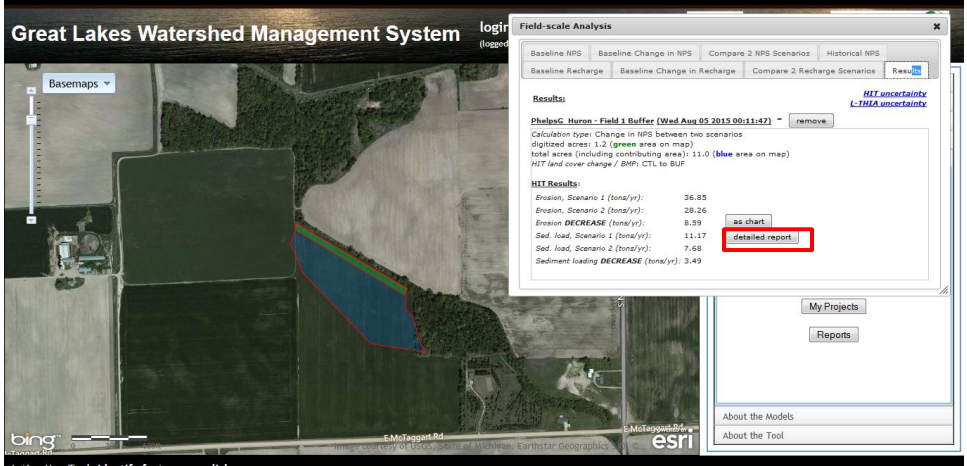
When evaluating one field, with multiple practices that do not occur on the same number and footprint of acres

Digitize First Practice and Setup "Compare 2 NPS Scenarios"



STEP 4: Complete the Scoring Process

Calculate Results and Generate Detailed Report



STEP 4: Complete the Scoring Process

Note Final Score

8/3/15
Laura Young

Report 3 for G. Phelps

Location

Description: Field 1 Buffer
County: Huron
Township/Range: T15N R13E
Watershed (HUC8): Pigeon-Wiscoggin (04080103)

Acres
Total Field Acres: 1.2
Total Contributing Acres: 11.0
Acres by HIT BMP:
- *buffer strip:* 1.2

Non-point Source Pollution

Sediment Loading saved by BMP (tons/year): 3.49
Sediment Loading rate saved by BMP (tons/acre/year) (including contributing areas): 0.32

Fish Habitat

Predicted Water Quality: Severely Impacted

Saginaw Bay Watershed RCPP Scoring

Final Score: 290 (out of 400)
- *Water Quality Score*: 140 (out of 140)
- *Sediment Savings Score*: 150 (out of 260)

STEP 4: Complete the Scoring Process

Record for averaging

APPLICATION NUMBER: (for NRCS use only) NRCS Evaluator:

Form NO.	Score (out of 400)
1	290
2	
3	
4	
5	
6	
7	
8	
9	
10	
SUBTOTAL[1]:	290

(Subtotal/Total Available) *100= 73%

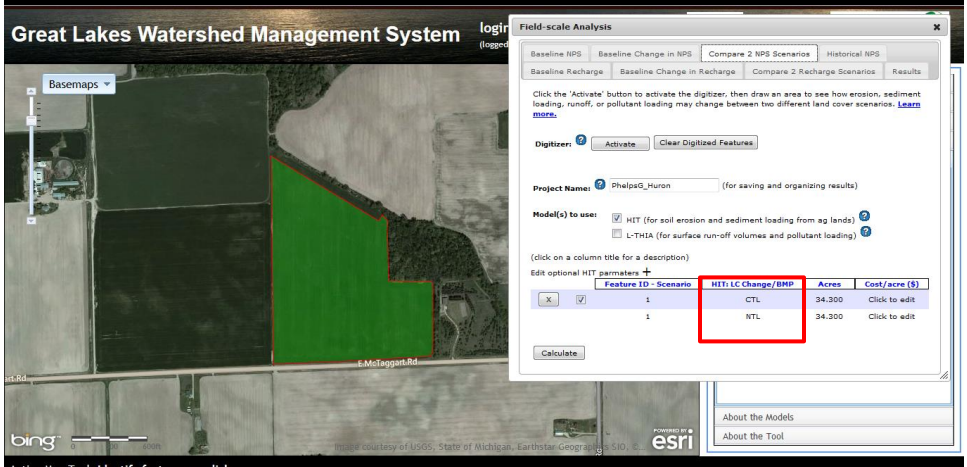
% (from above) multiplied by 400= 290 **NO. Application Points Attained**

Page 1

Final Score: 290 (out of 400)
- *Water Quality Score*: 140 (out of 140)
- *Sediment Savings Score*: 150 (out of 260)

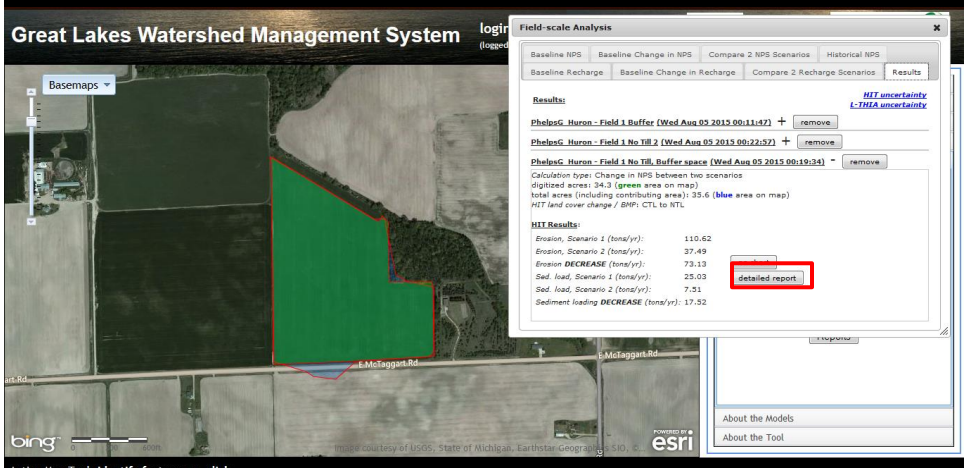
STEP 4: Complete the Scoring Process

Digitize Second Practice and Setup "Compare 2 NPS Scenarios"



STEP 4: Complete the Scoring Process

Calculate Results and Generate Detailed Report



STEP 4: Complete the Scoring Process

Note Final Score

8/3/15
Laura Young

Report 5 for G. Phelps

Location

Description: Field 1 No Till w space for buffer
County: Huron
Township/Range: T15N R13E
Watershed (HUC8): Pigeon-Wiscoggin (04080103)

Acres
Total Field Acres: 34.3
Total Contributing Acres: 35.6
Acres by HIT BMP:
- *no-till*: 34.3

Non-point Source Pollution

Sediment Loading saved by BMP (tons/year): 17.52
Sediment Loading rate saved by BMP (tons/acre/year) (including contributing areas): 0.49

Fish Habitat

Predicted Water Quality: Severely Impacted

Saginaw Bay Watershed RCPP Scoring

Final Score: 340 (out of 400)
- *Water Quality Score*: 140 (out of 140)
- *Sediment Savings Score*: 200 (out of 260)

STEP 4: Complete the Scoring Process

Record for Averaging

APPLICATION NUMBER: (for NRCS use only) NRCS Evaluator:

Form NO.	Score (out of 400)
1	290
2	340
3	
4	
5	
6	
7	
8	
9	
10	
SUBTOTAL[1]:	630

Page 1

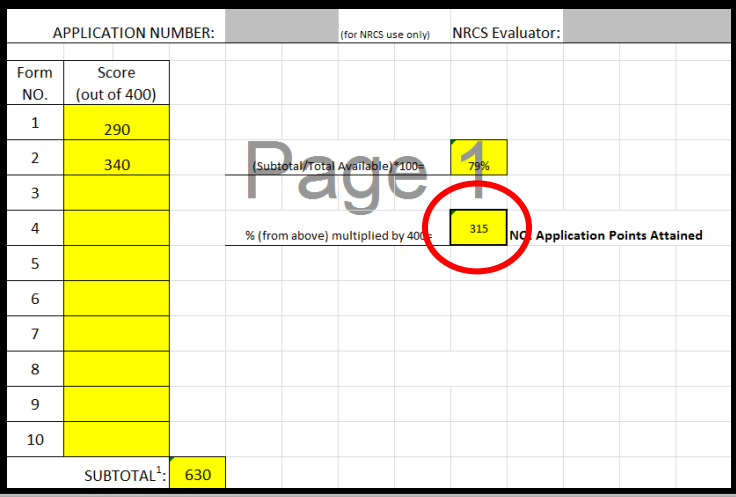
(Subtotal/Total Available)*100= 79%

% (from above) multiplied by 400= 315 **NO. Application Points Attained**

Final Score: 340 (out of 400)
- *Water Quality Score*: 140 (out of 140)
- *Sediment Savings Score*: 200 (out of 260)

STEP 4: Complete the Scoring Process

Review Final, Averaged Score



APPLICATION NUMBER: (for NRCS use only) NRCS Evaluator:

Form NO.	Score (out of 400)
1	290
2	340
3	
4	
5	
6	
7	
8	
9	
10	
SUBTOTAL[1]:	630

(Subtotal/Total Available) *100= 79%

Page 1

% (from above) multiplied by 400= 315 NC Application Points Attained

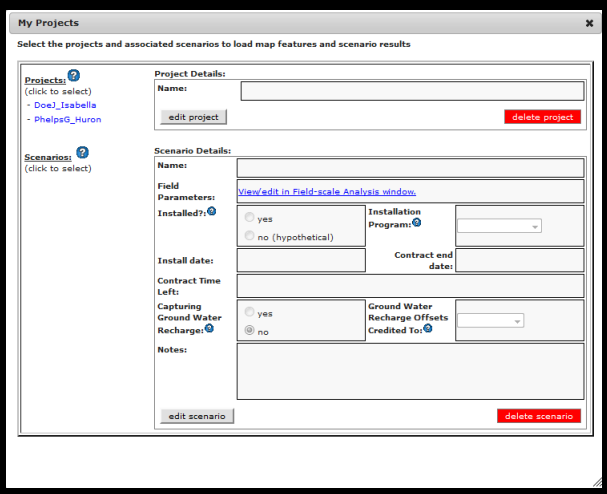
STEP 4: Complete the Scoring Process

STEP 5: Access Saved Scenarios

Specifying contract dates and programs

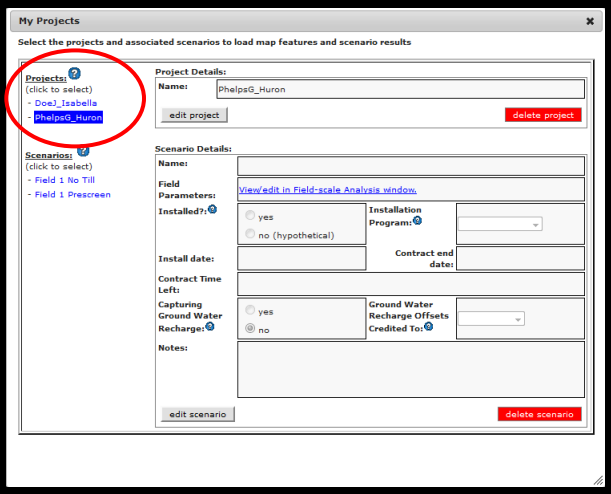
Open My Projects from Analysis Tab

My Projects Window



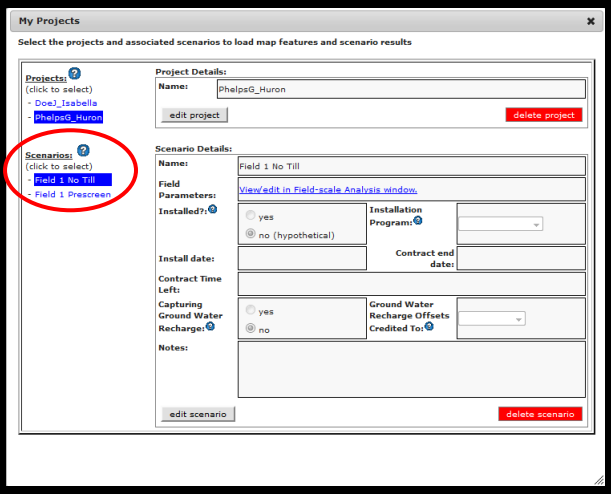
STEP 5: Access Saved Scenarios

Select Project



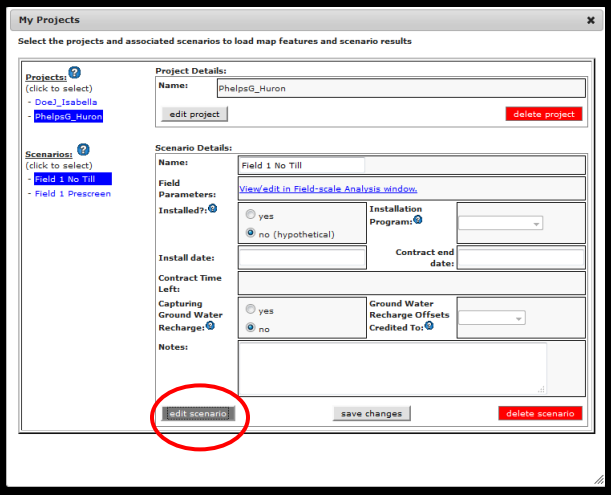
STEP 5: Access Saved Scenarios

Select Scenario



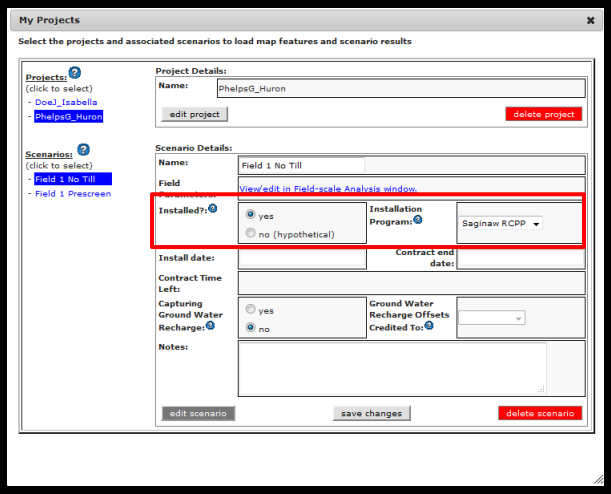
STEP 5: Access Saved Scenarios

Select “Edit Scenario”



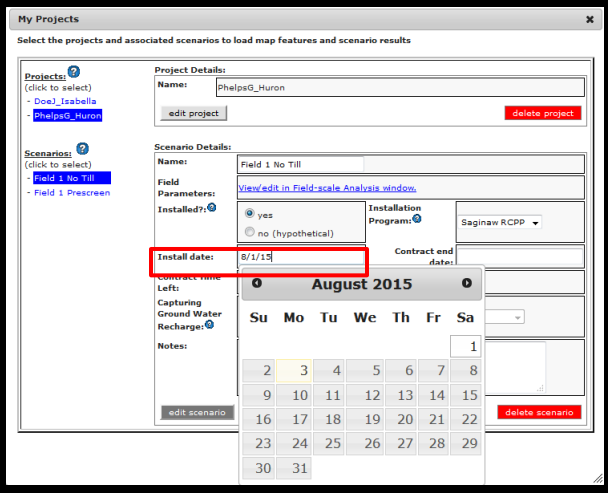
STEP 5: Access Saved Scenarios

Indicate BMP Installed through Saginaw RCPP



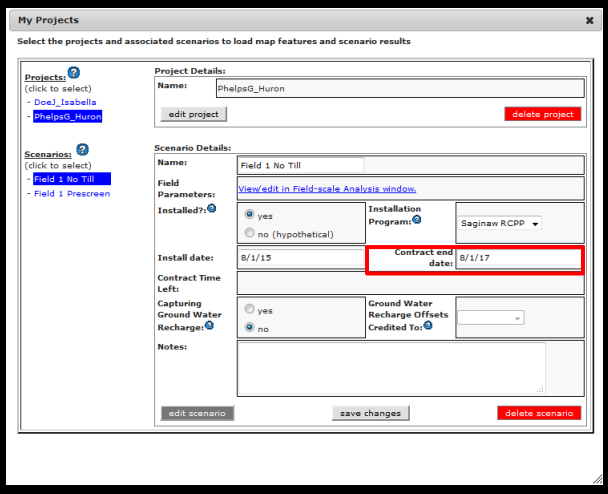
STEP 5: Access Saved Scenarios

Include Contract Time



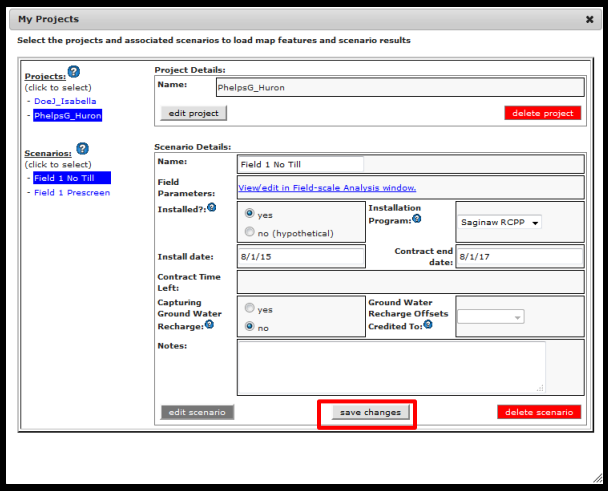
STEP 5: Access Saved Scenarios

Include Contract Time



STEP 5: Access Saved Scenarios

Save Changes



STEP 5: Access Saved Scenarios

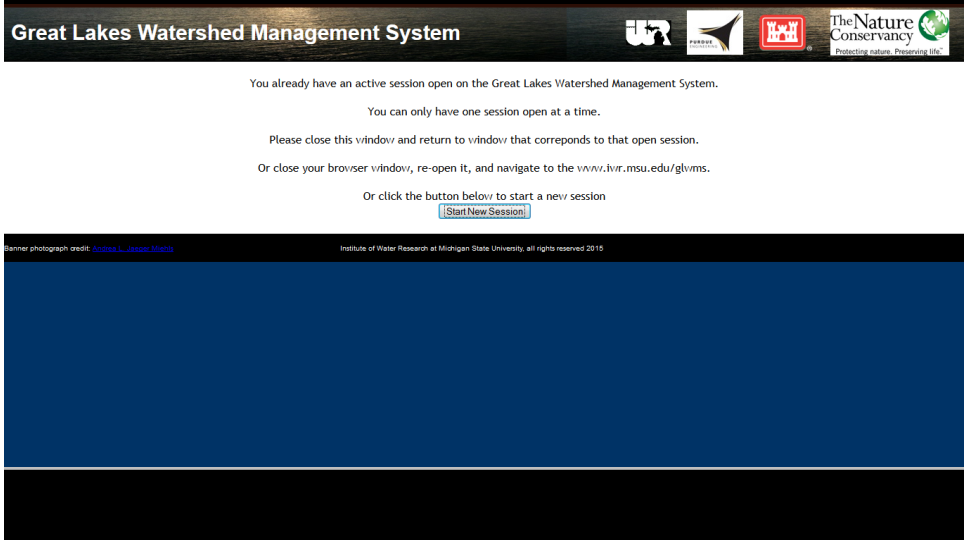
Also Include Voluntary Practices

1. Digitize practice
2. Run Compare 2 NPS Scenario
3. Save Scenario
4. Specify as Voluntary and Time

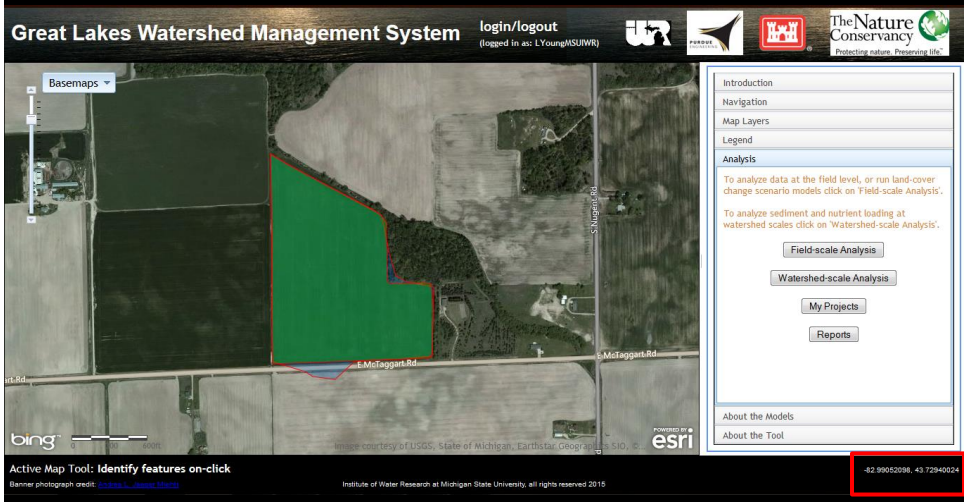
STEP 5: Access Saved Scenarios

GLWMS Tips

Don’t hit the Back Button



Get coordinates



Digitizing

- You can close out of the Field-scale Analysis window to see more of the map
- Hit “Escape” button to restart
- You can zoom in and pan the map while digitizing (for more accurate digitizing)
- Remember to deactivate the digitizer

Questions?