## STEP 1: Log in to the GLWMS
- Access the GLWMS at https://iwr.msu.edu/glwms2/maplercpp.aspx
- Select **Login** from the menu and provide your login information.
- If you don't have an account, select Create New Login from the login menu.

## STEP 2: Locate field of interest
- Next, select **Switch Basemap** > **Imagery with Labels** to view field imagery.
- Then, locate the field of interest by panning and zooming in on the map or by using the map's search bar.

## STEP 3: Model groundwater recharge and sediment
- Select **Score Calculator** from the menu and enter a **project name**. We recommend using the Farm or Farmer last name as the project name.
- Select **Draw** and click around the field's boundaries to outline the field. Double click to complete. Select **Done** to return to the calculator. Note: practices that only cover a portion of a field (e.g., filter strips) must be drawn separately.
- Next, click **Field Survey** and fill in the requested information about the field's current and proposed management.
- Next, click **Calculate**. The system will return results in about a minute.
- Select **View Priority Scores** to see how well the field scores for increases in groundwater recharge, sediment reductions, and geographic priorities.
- Click **Save Results** and provide a scenario name. We recommend Farmer Last Name_Field Identifier.
- Repeat this process for each field that may be included in the application. Select **Draw Fields** > **Clear All Drawings** to remove the previous field.

## STEP 4: Build Report
- Once all field-scale analyses are finished for the application, select **Reports** from the main menu.
- Find the project under which the scenarios are stored. Hold the Ctrl key and select all the scenarios to be included in the report. Then click **Build Report.**
- It will take a moment to generate the report. The report includes a cumulative application score that will be used for the local EQIP ranking questions. It also includes individual field scores.
- Download and **save a copy** of the report to submit with the application.

## STEP 5: Update practice information
- Any practices that are eventually contracted through the program should be marked as installed within the GLWMS.
- Select **My Projects** > **Load/Edit Projects**. Click on the project that contains installed practices. Then select the pencil icon next to the scenario you'd like to update. Mark it as installed and select **Save Edits.**

**Field Survey**

**Priority Scores**

**Build Report**

**Update practice**

## Tips and Reminders

### For the program

- If a particular field is lowering the overall competitiveness of an application, consider talking to the producer about removing that field from the application. Applications are more competitive if the GLWMS report score is at least 175 points, and most competitive when over 250.
- Applications will be prescreened based on their ability to increase groundwater recharge. Applications that increase groundwater recharge will be considered high priority, while applications that are modeled to have no increase in groundwater recharge will be considered low priority.
- Conservation activity plans are only offered in 2019. In future years, CAPs should be contracted through regular EQIP.

### For the GLWMS

- We recommend using the farm name or farmer's last name for naming projects. For field scenarios, use the farmer's last name with a field identifier. If you are running multiple scenarios on the same field, consider adding a practice identifier (e.g., NT for no till).
- If you make a mistake while you are drawing a field, hit the "Esc" button on your keyboard to restart. If the field has already been drawn but needs adjustment, hit the "Clear Field" button, select "Draw Field" and re-draw the field. Recall that practices that only cover a portion of the field should be drawn separately. If the producer will implement a full-field practice and a partial-field practice, draw the partial-field practice first and then draw the remainder of the field. You will answer two sets of questions regarding current and proposed management for each drawn area.
- Remember that you can import saved answers for the field survey (within the Score Calculator) using the Import button at the top of the survey window.

## Helpful Links and Contact Information

### Links

- Tailored GLWMS: https://iwr.msu.edu/glwms2/maplercpp.aspx
- Project website: https://maplercpp.weebly.com/

### Contacts

- General questions about the program:
  Laura Young
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  517-353-8587

- Bugs or technical issues with the GLWMS:
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  609-557-3017

- Project Manager:
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Let us know if you run into trouble using the GLWMS or have suggestions for how it could be improved in future project years.

Commonly used GLWMS features

| Assess field priority score | Access saved projects and scenarios | Generate application score | Login |

**Improving Stream Habitat in the Maple River Watershed** (on the Great Lakes Watershed Management System)

Map Layers | Score Calculator | Draw Fields | My Projects | Reports | Tutorials | About | Login

Switch Basemap

Switch to field imagery

Search by location, intersection, PLSS

Find address or place

Measure