

RUN THE MODELS

SUBMIT DATA AND GET RESULTS

PROCESSING INFORMATION

Once data is entered into the surveys, it can be submitted in the Project Workspace. The results of the model run are returned to the Reports Tab (Figure 1).

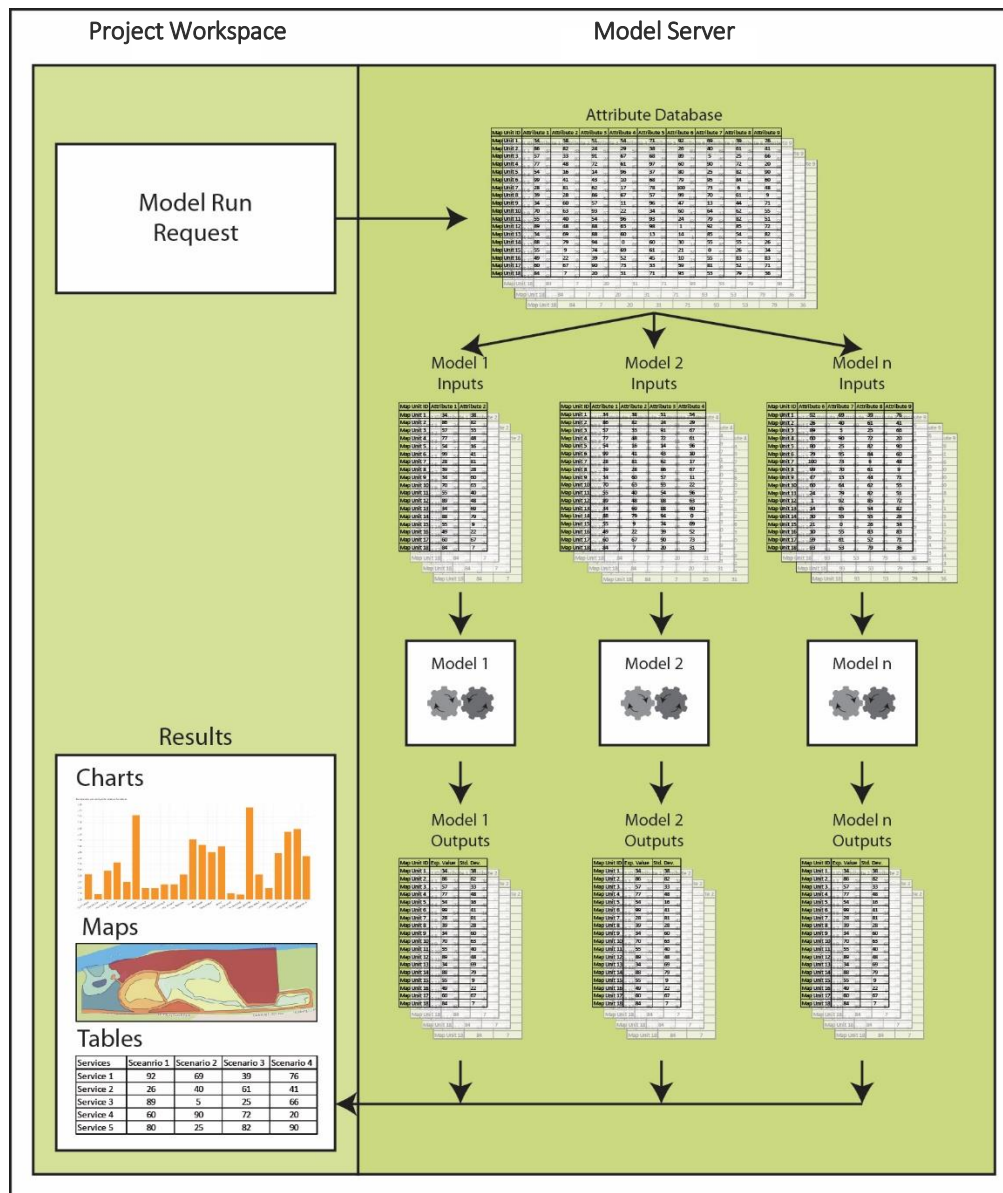


Figure 1. General workflow diagram illustrating modeling process

Because results are processed at a Scenario level, rather than a Site or Data Collection Effort (DCE) level, all map units must be completely filled out before input values can be submitted for processing. There are several ways to identify map units that have not been completely filled out within the Project Workspace.

- On the list of map units (Figure 2), a “% complete” column displays both a numeric value (0-100) and a gradation of color for each map unit, where red colors indicate more incomplete map units and green colors indicate more complete map units. This gradation of color in a map is called a color ramp¹ and helps the viewer quickly identify map units that require additional data entry. When all of the map units are 100% complete, you are ready to run the data through the models from the Reports page.

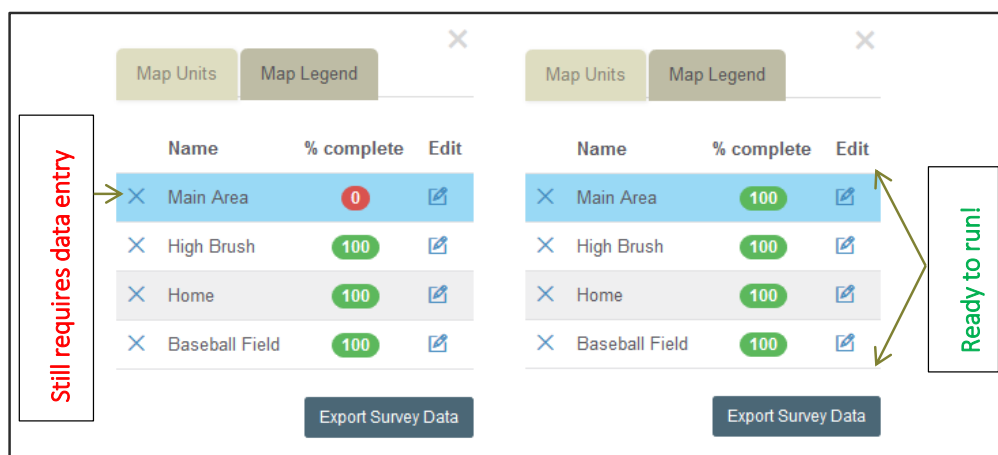


Figure 2. Examples of incomplete and complete map unit surveys shown in the Map Units list of the Project Workspace

- On the main Maps page, the default symbol for map unit color coding is **red** for incomplete and **green** for complete, with percent completion also denoted from 0-100%. (Figure 3).

¹ A color ramp is a spectrum of colors that can be used to show gradation in values according to their magnitude. For example, a common color ramp is red transitioning to green, with red representing low scores and green representing high scores.

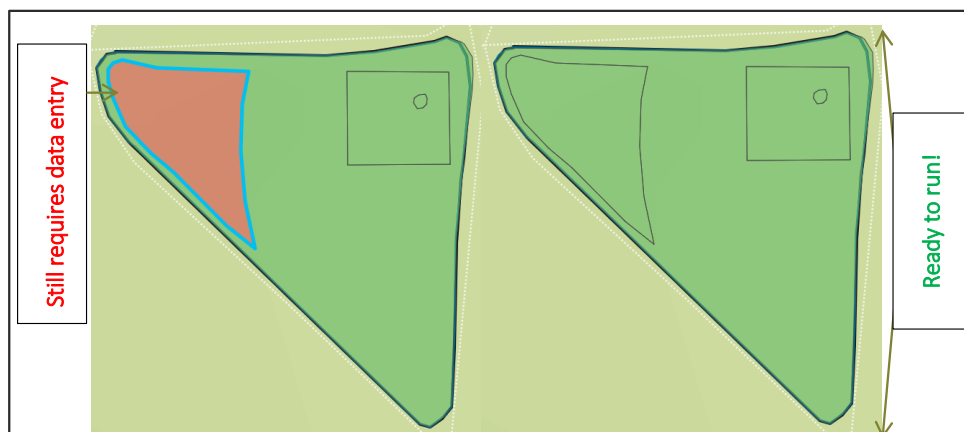


Figure 3. Examples of incomplete and complete map unit surveys shown in the Map View page of the Project Workspace

When all of the map units for each of the Scenarios that you wish to analyze have been completely filled out, click the Reports tab (Figure 4). This is where you will submit the data for the model run.



Figure 4. The Reports Tab header in the Project Workspace

Scenarios run independently of one another. You do not need to complete all of the map units for Scenarios that you do not intend to analyze.

On the Reports tab, the Site's Scenarios are listed as column headers across the top of the main results table; their current status is indicated in the Status row, immediately below (Figure 5). A status of "Incomplete Data" indicates that there is at least one map unit that has not been completely filled out within that Scenario. A status of "Ready for Analysis" indicates that all map units have been completed; no additional data entry is required prior to a model run.

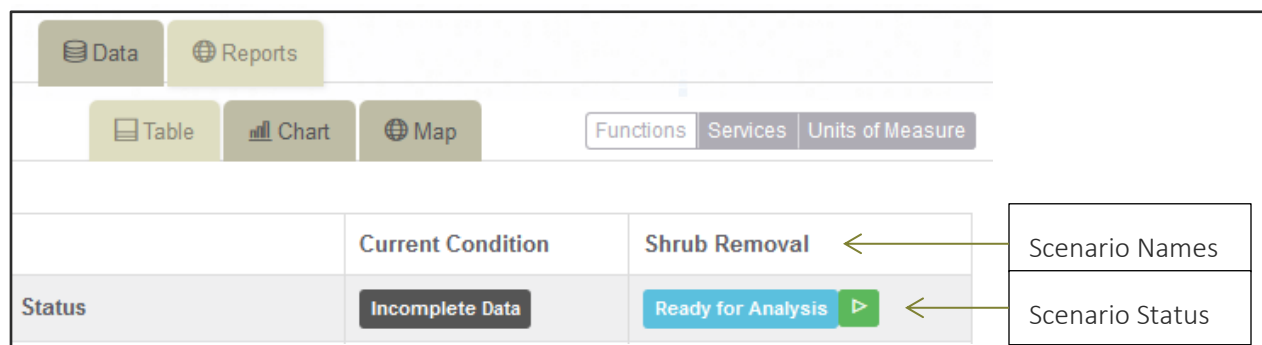


Figure 5. Scenario names and Scenario status indicators in the Project Workspace

When all of the map units for each of the Scenarios that you wish to analyze have been completely filled out, the status for all of the Scenarios should be “Ready for Analysis”. Click the green Run button to submit the data for a model run (Figure 6).

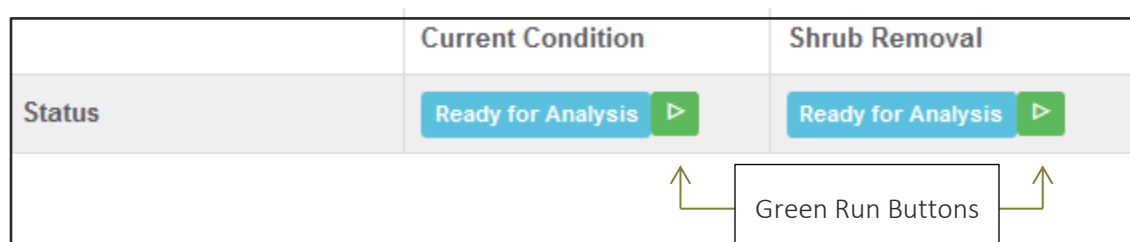


Figure 6. Scenarios ready to be run and the Run buttons

Once you click the green Run button to launch an analysis, the status will change to “Running”. Once the models are approximately halfway complete, the status will change to “Running (Partially Complete)” until the model runs are completed. Once a model run is completed, the status will change to “Analysis Complete” (Figure 7).

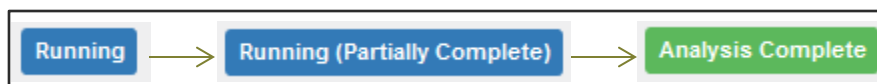


Figure 7. Sequence of indicators used to show progress in a new model run

If map unit data for the Scenario is edited after a model run has been completed, the status of the analysis will update from “Analysis Complete” to “Analysis Out of Date (Data)”. Once all edits have been made, click the green Run button next to “Analysis Out of Date (Data)” to re-run those map units (Figure 8).



Figure 8. Sequence of indicators used to show progress in a re-run model run

RESULTS FORMATS

Results from a model run can be found on the Reports tab and will fall into one of three different output categories, which can be selected: Functions, Services, and Units of Measure (Figure 9).

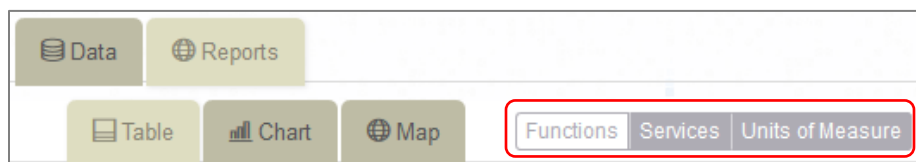


Figure 9. Function, Service and Unit of Measure buttons available in the Reports tab of the Project Workspace

Ecosystem Functions and Services scores are shown in units of percent performance, while each Units of Measure score will be shown in the engineering units appropriate to each attribute.

- At a map unit level, percent performance predicts how well a map unit would perform a given function or service as a proportion of the maximum potential you would expect from ideal attribute conditions.
- At a Site or Scenario level, percent performance is calculated as the area weighted average of the individual map unit's percent performance values; it provides a normalized comparative metric between Sites or Scenarios.
- At both the map unit and the Site or Scenario levels, the units of measure represent absolute values (such as gallons of runoff or BTU reduction through shading) and can be either summed to show absolute performance of a Scenario, or normalized by area to show area-based rates of performance.

From the Reports tab, the Functions, Services, and Units of Measure scores can be viewed in three different reporting formats, accessible via tabs at the top of the page: Table, Chart, and Map ().

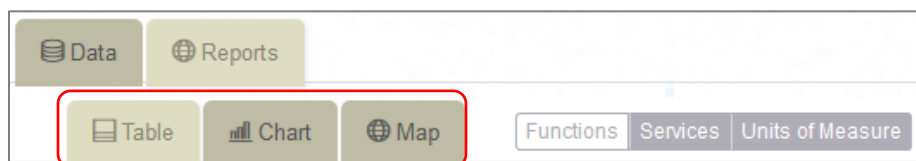


Figure 10. Report format tabs in the Reports tab of the Project Workspace

When you open the Reports tab, the default reporting format is Table. Once the model results have been run, this table will be populated with Scenario-level summary results for each Function, Service, or Unit of Measure, based on the metric selected.

It is important to note that the values presented through these tabs are best used for Scenario summary comparisons between entire Scenarios rather than between individual map units.

- At the bottom of the table, an Export Summary Data button allows you to download the data table (Figure 11).

- Additionally, at the bottom of each Scenario column, an Export Data button allows you to download map unit-level data for the corresponding Scenario and output category (Function, Service, or Unit of Measure) (Figure 11).

Norm - Particulate Removal(PP)	0.00	0.00
Norm - Air Temperature Regulation (PP)	0.00	0.00
Export	Export Data	Export Data
Export Summary Data for Functions		

Scenario-Specific Data

Scenario Data for the DCE

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Figure 11. Data export options from the bottom of the Table tab in the Reports tab of the Project Workspace

The Charts tab provides a visual comparison between the different Scenario summary values in bar chart format (Figure 12). This is a convenient way to quickly see how different functions or services may change between alternative Scenarios.

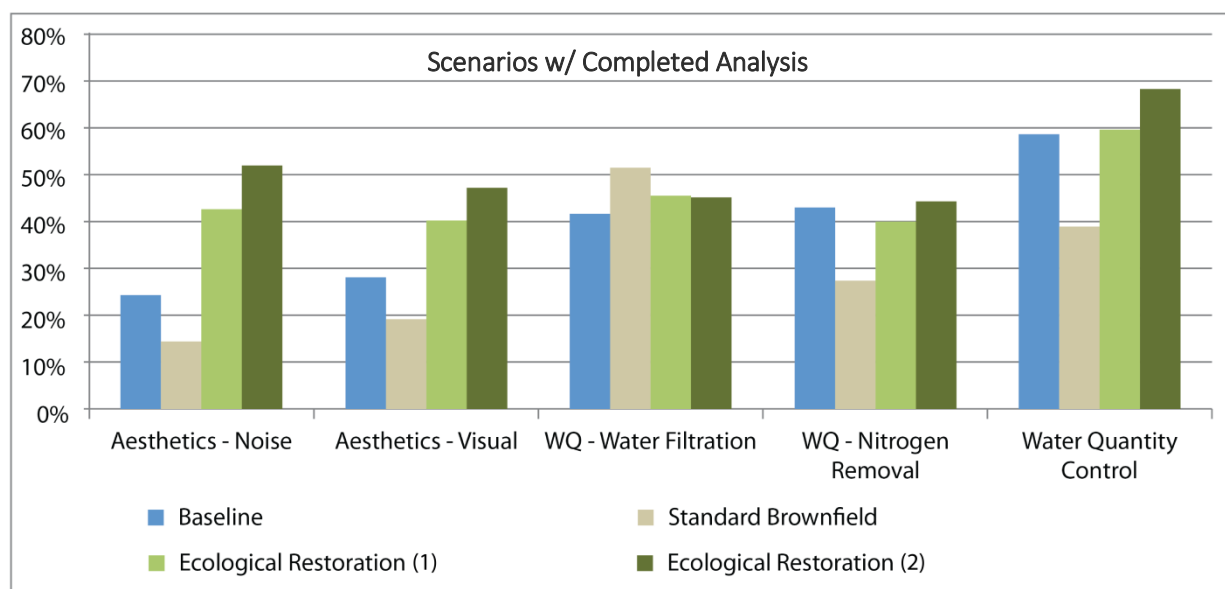


Figure 12. Example chart of Scenario level model outputs normalized by area

Lastly, the Maps tab (Figure 13) allows you to view the map units for a selected Scenario with the colors of the individual map units symbolizing the percent performance stretched across a color ramp. Dropdown boxes in a window on the left allow you to select the Scenario you wish to view, the variable (individual Function, Service, or Unit of Measure), the color ramp, and a checkbox to switch the direction

of the color ramp. This representation of the data is useful because it provides a visual interpretation of both the size and performance of individual map units within the spatial context of the site. This is also a useful tool for identifying significant contributors or outliers in the data.

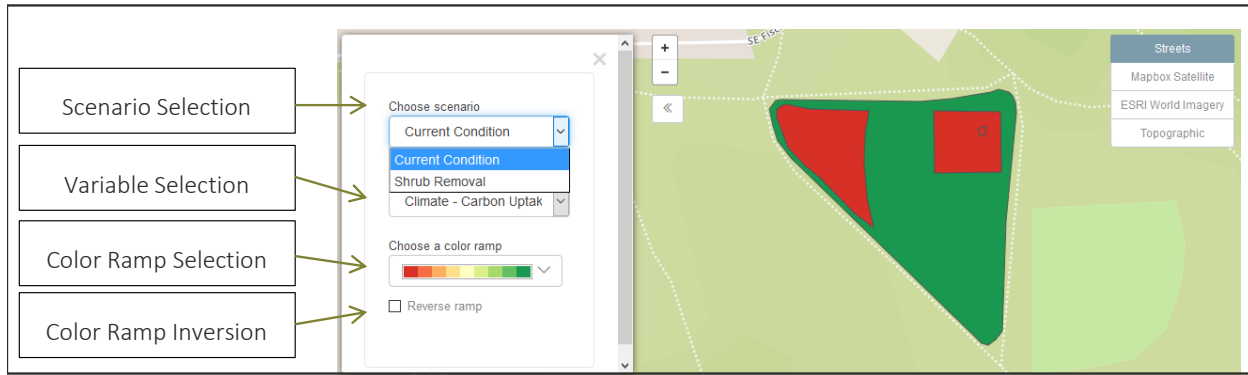


Figure 13. Example heat maps and selection options for various Scenario, variable, color ramp, and ramp inversion preferences