Water Benefits Calculator for Ethiopia

User Manual Version 2.0

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CRS CATHOLIC RELIEF SERVICES faith. action. results.

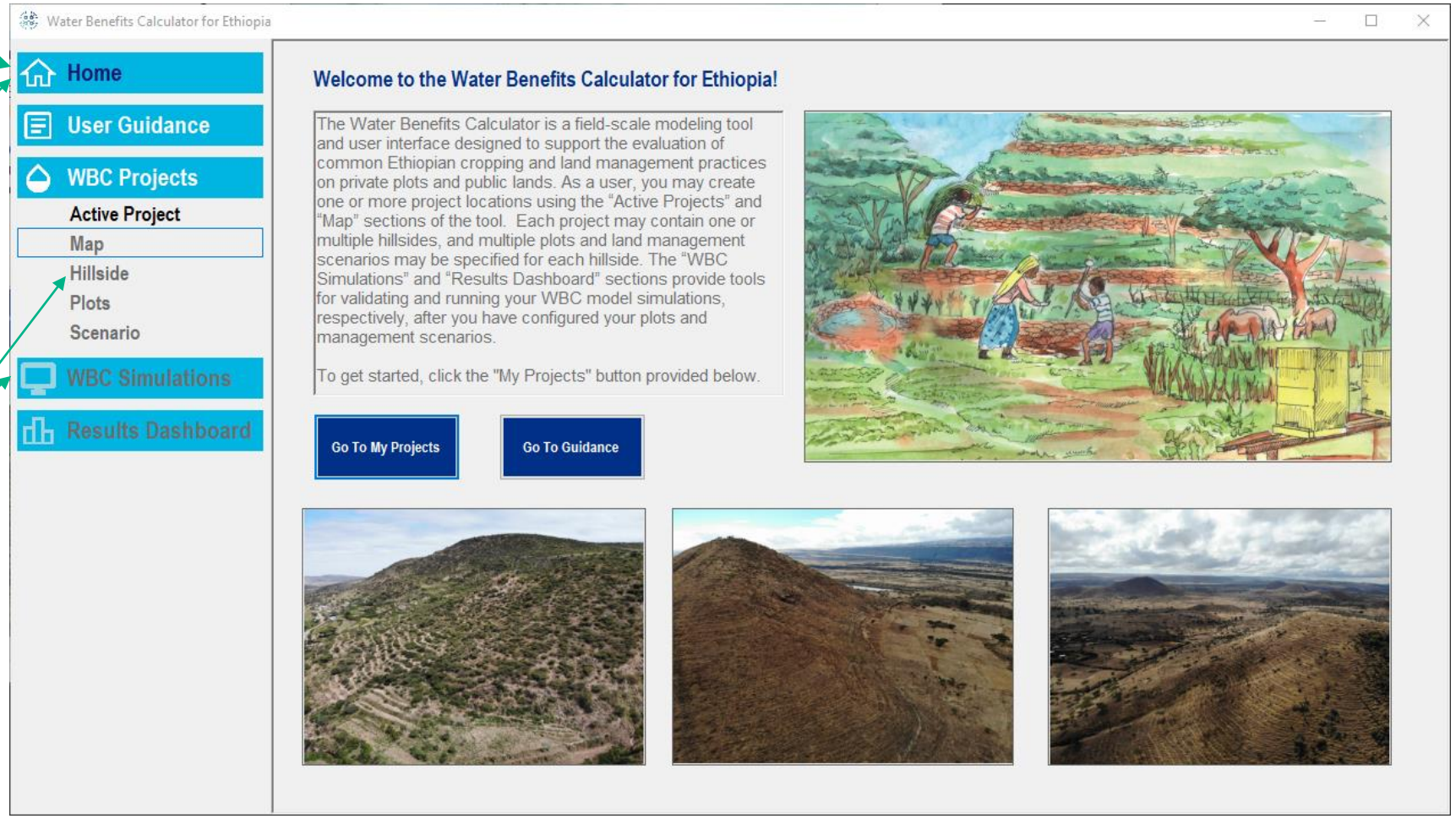
LimnoTech

Navigating Between Forms

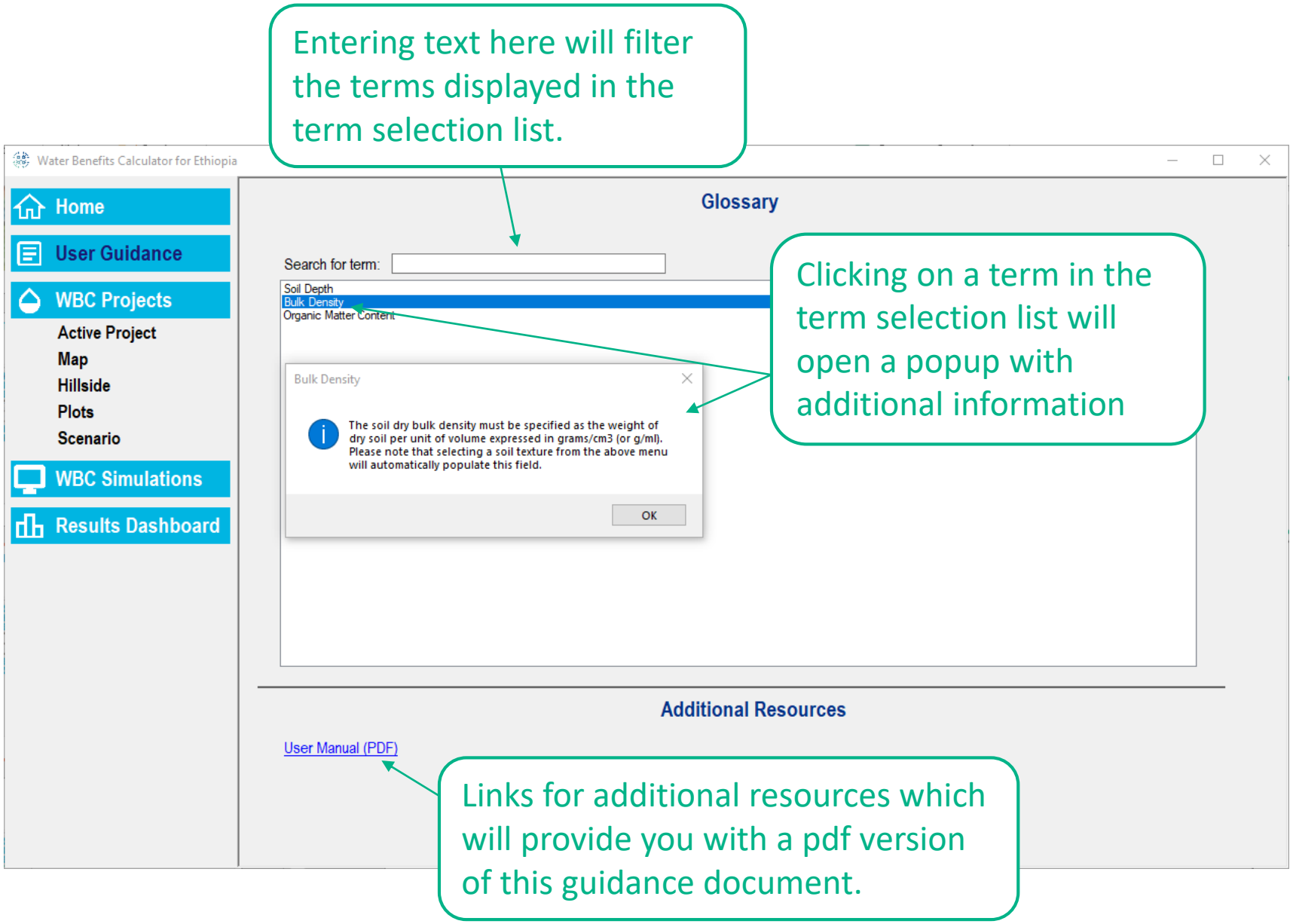
Click a button on the left navigation menu to change to the corresponding form.

The text corresponding to the form which is currently will be highlighted in a different color on the navigation menu

When the tool first loads some pages will be ‘greyed out’ and are inaccessible. Theses pages will become accessible as you select the required information. For example selecting an active project will enable the ‘Map’ and ‘Hillside’ forms.



User Guidance Form



Project Overview

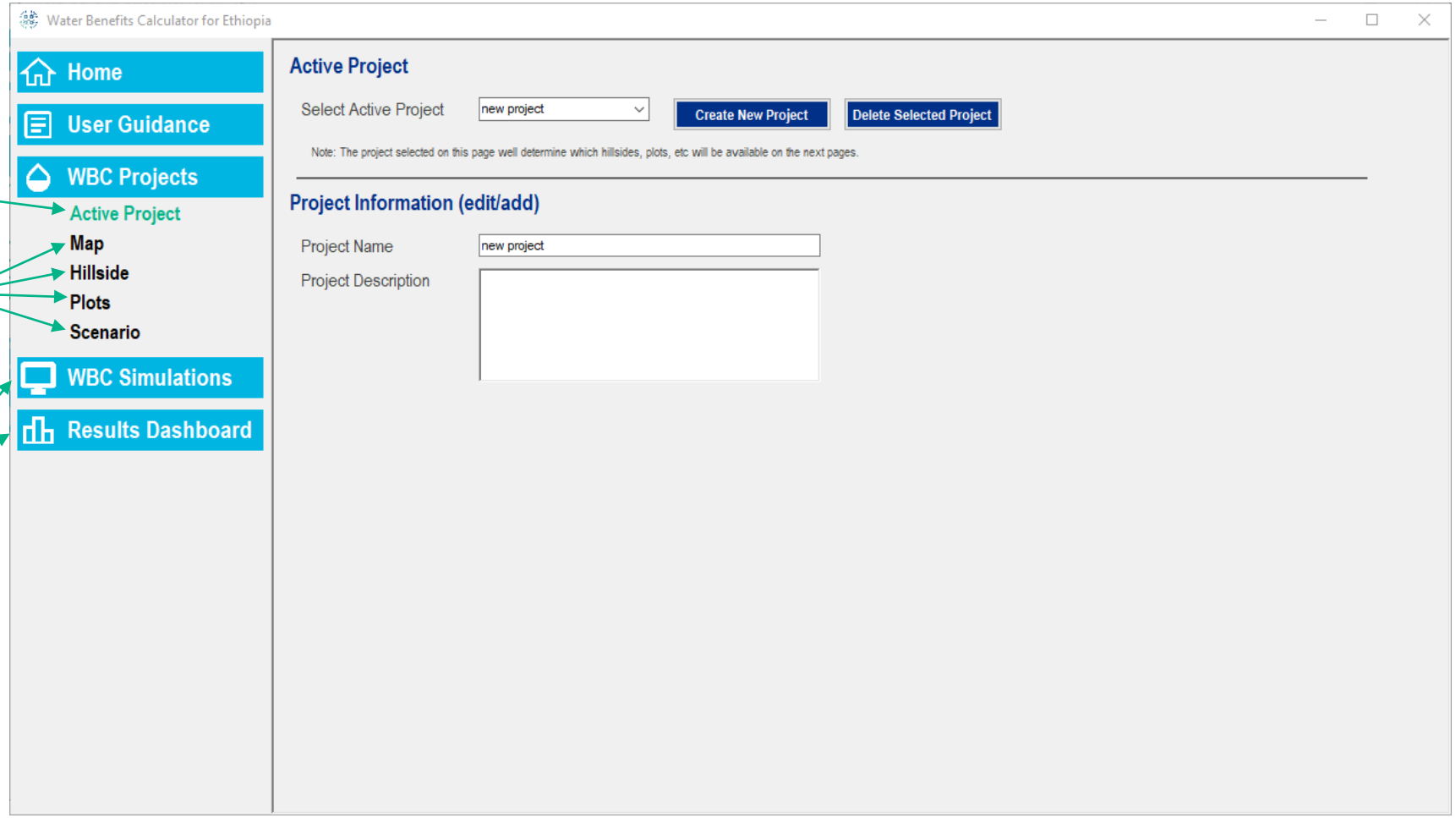
Below is an outline of the general steps for define a project through generating models results.

Creating a new project begins on the ‘Active Project’ form.

After populating the project level information, work through the other forms in the order listed.

Once all the project data forms have been populated, user can run the simulation and then view the results.

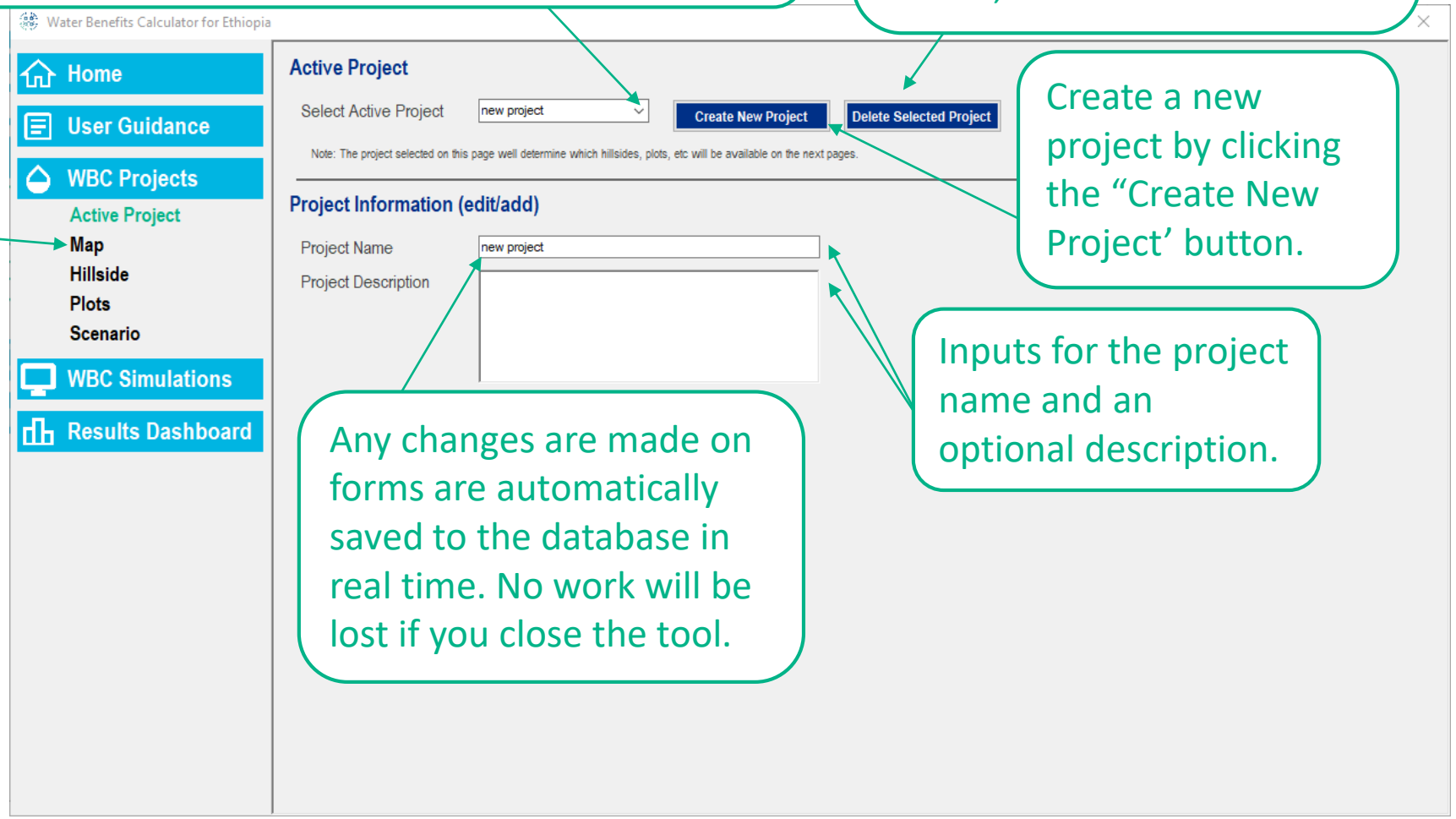
The next few slides will walk you through the feature on each of the forms.



Active Project Form

Select the ‘Active Project’ using this dropdown. The Active Project will determine which Hillsides, and subsequently Plots and Scenarios, will be available of later pages.

You can delete a project using this button. Note: deleting a project will also delete any related Hillsides, Plots, model results, etc.



Create a new project by clicking the “Create New Project’ button.

Once entry of project information is complete move to the ‘Map’ form.

Inputs for the project name and an optional description.

Any changes are made on forms are automatically saved to the database in real time. No work will be lost if you close the tool.

Map Form

Click the “Locate WBC Project” and then click the map to add/edit the location of your project. Specifying the project location is optional, but this will assign default weather stations and soil texture for hillsides you create under this project.

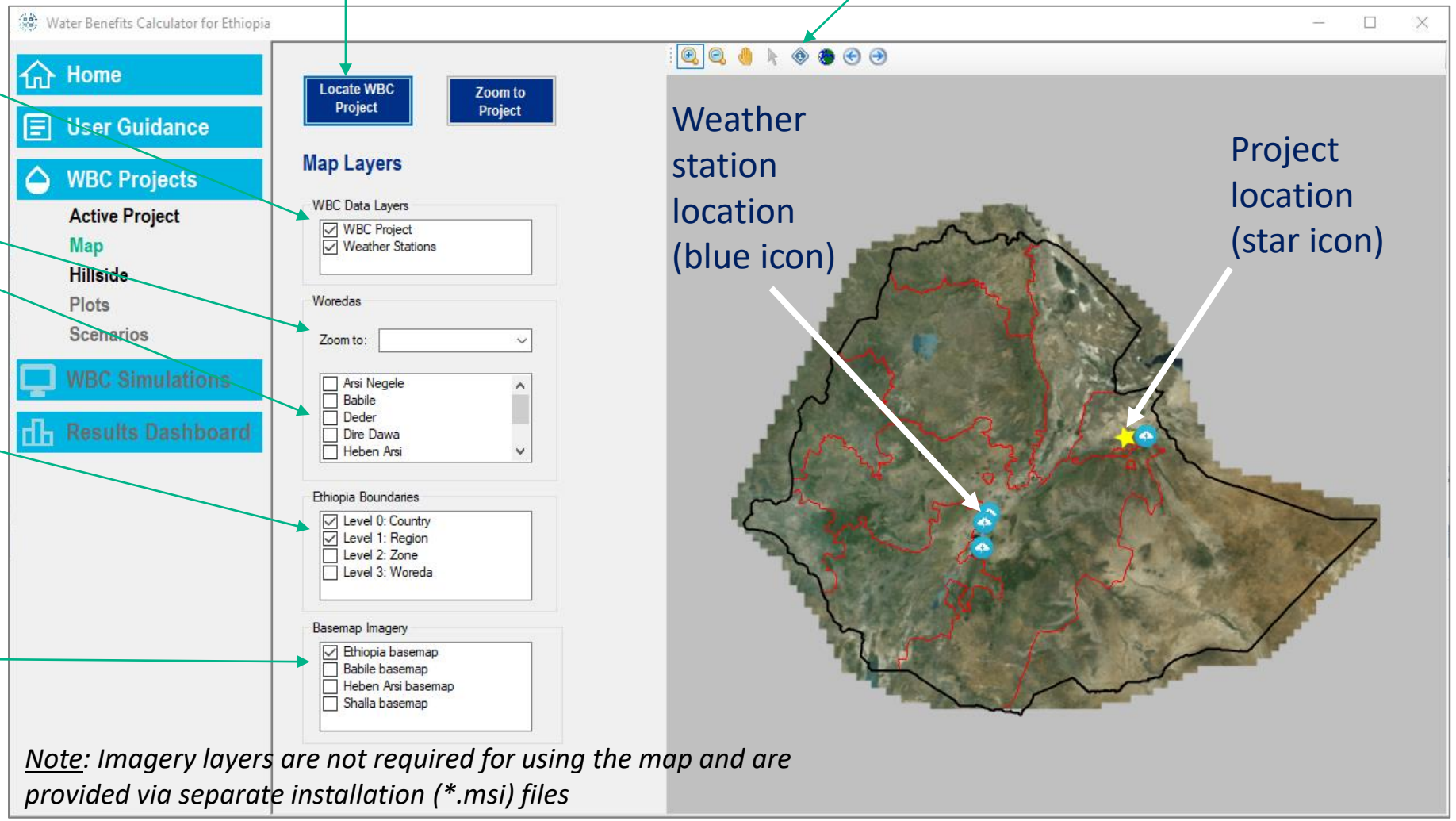
Map toolbar controls support panning, zooming, and identifying features on the map

“WBC Data Layers” include the project location and available weather stations.

Woreda layers can be toggled on/off and you may zoom to a specific woreda.

Ethiopia government boundary layers are provided at the country, region, zone, and woreda scales.

Optionally, a coarse-resolution basemap for Ethiopia and medium-resolution imagery for individual woredas can be added to the WBC. Local images will be added to the map when zooming to a particular woreda.



<u>Note</u>: Imagery layers are not required for using the map and are provided via separate installation (.msi) files*

Hillside Form

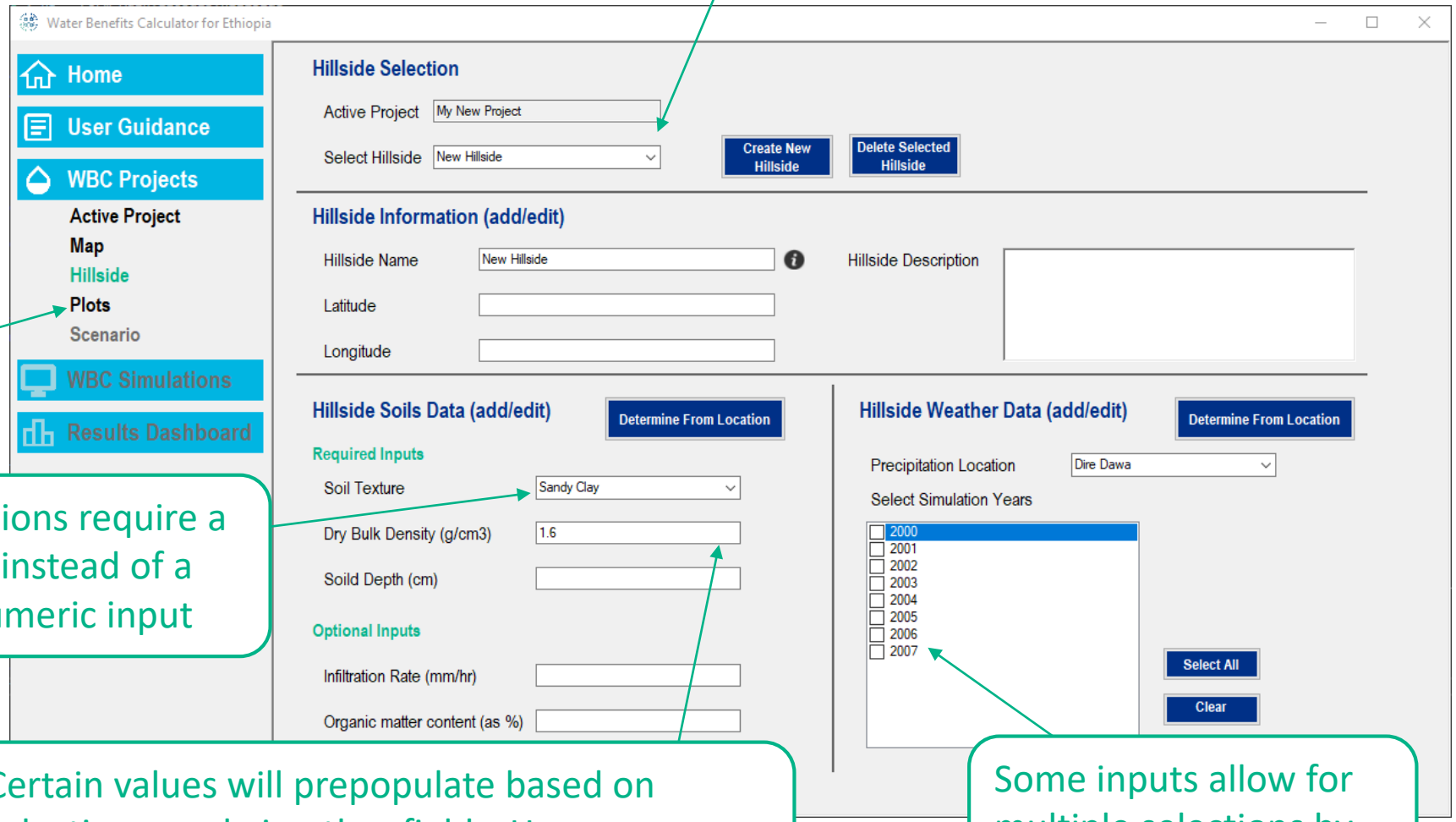
Start by selecting an active Hillside

Once complete move to the 'Plots' form.

Some options require a selection instead of a text or numeric input

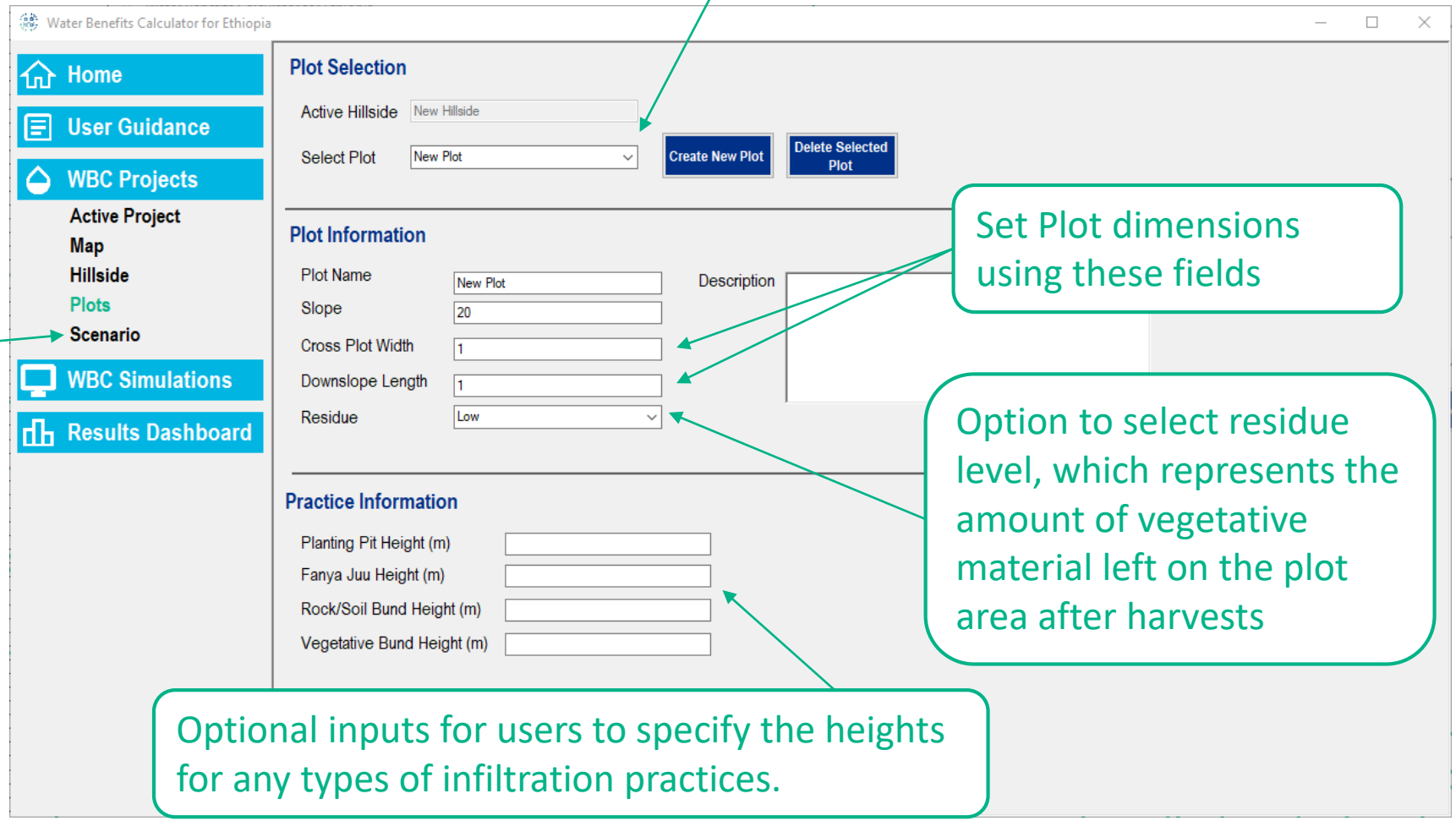
Certain values will prepopulate based on selections made in other fields. However users may optionally override the default value.

Some inputs allow for multiple selections by checking each option.



Plots Form

Start by selecting an active Plot



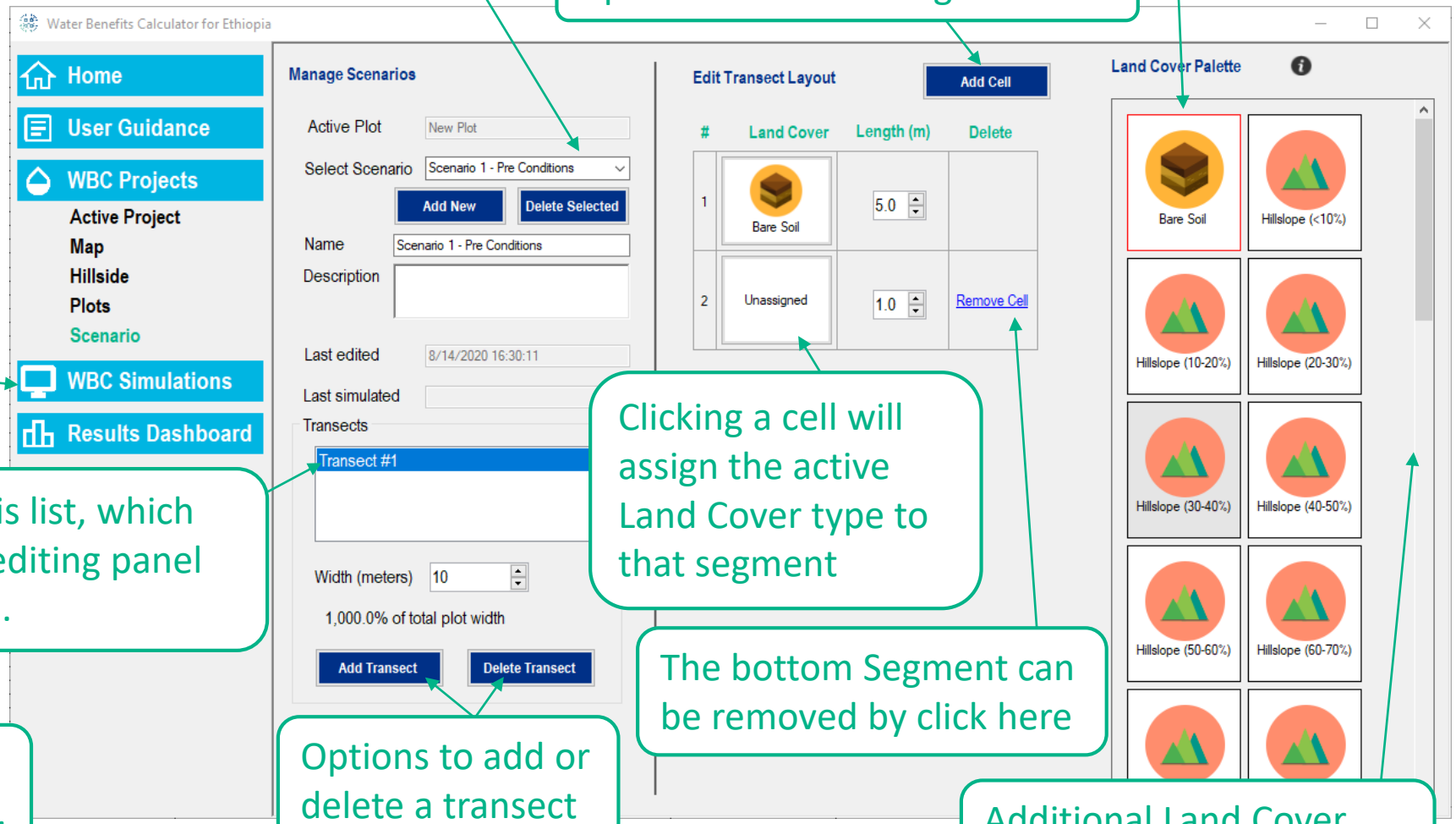
Once complete move to the 'Scenario' form.

Set Plot dimensions using these fields

Option to select residue level, which represents the amount of vegetative material left on the plot area after harvests

Optional inputs for users to specify the heights for any types of infiltration practices.

Scenario Form



Clicking on a Land Cover tile will set that as the active Land Cover type.

Start by selecting a Scenario

Option to add new Segment cell

Once complete you can run scenarios using the 'WBC Simulations' form.

Select a Transect from this list, which will update the transect editing panel in the middle of the form.

Clicking a cell will assign the active Land Cover type to that segment

The bottom Segment can be removed by click here

Note: Any changes made are saved to the database in real time.

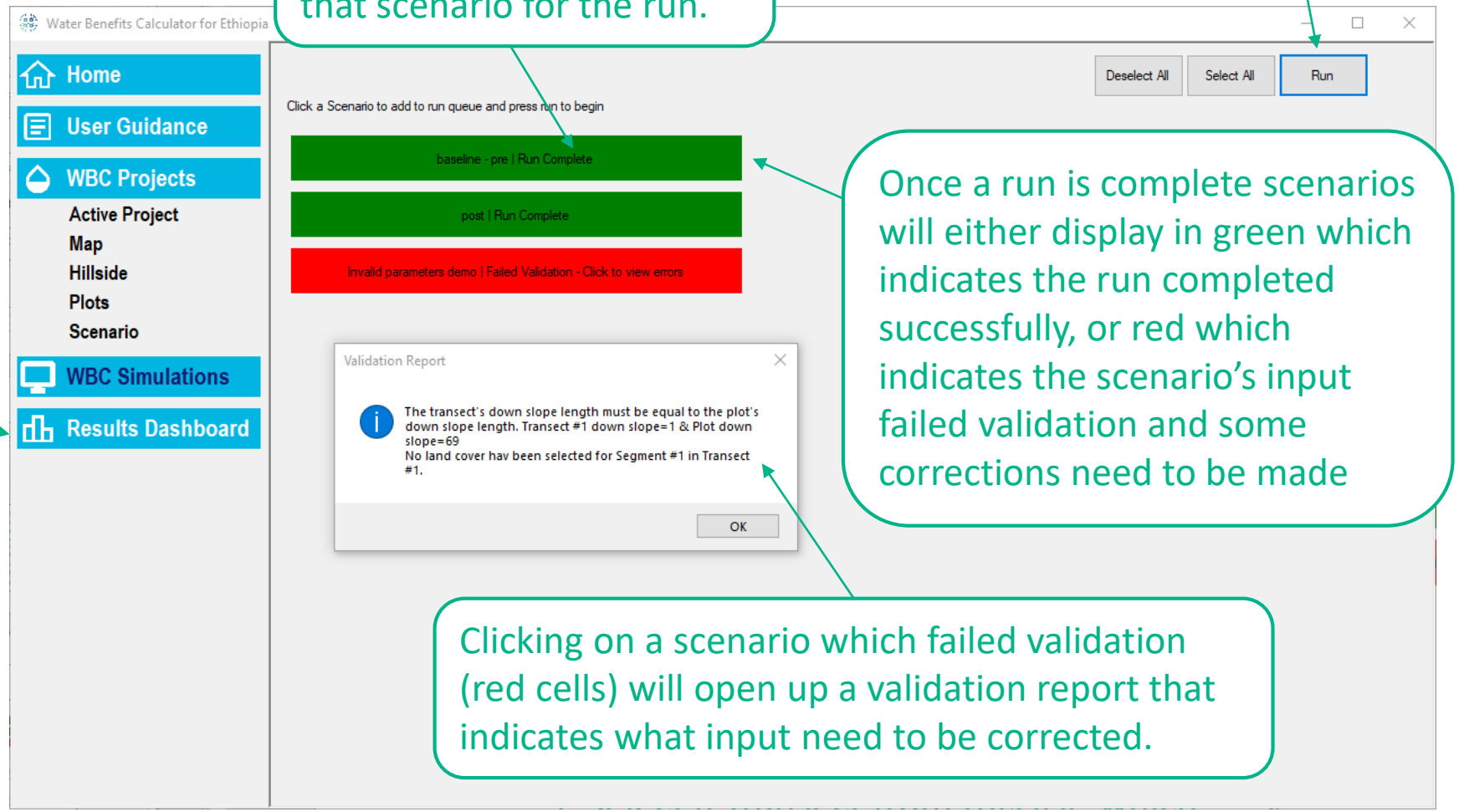
Options to add or delete a transect

Additional Land Cover tiles available by scrolling

WBC Simulations Form

A run can be started by clicking the run button. You'll be notified when runs are complete.

Prior to running, clicking on a scenario will queue that scenario for the run.



Results for completed runs can be viewed on the 'Results Dashboard' form

Once a run is complete scenarios will either display in green which indicates the run completed successfully, or red which indicates the scenario's input failed validation and some corrections need to be made

Clicking on a scenario which failed validation (red cells) will open up a validation report that indicates what input need to be corrected.

Results Dashboard Form - Detail Tab

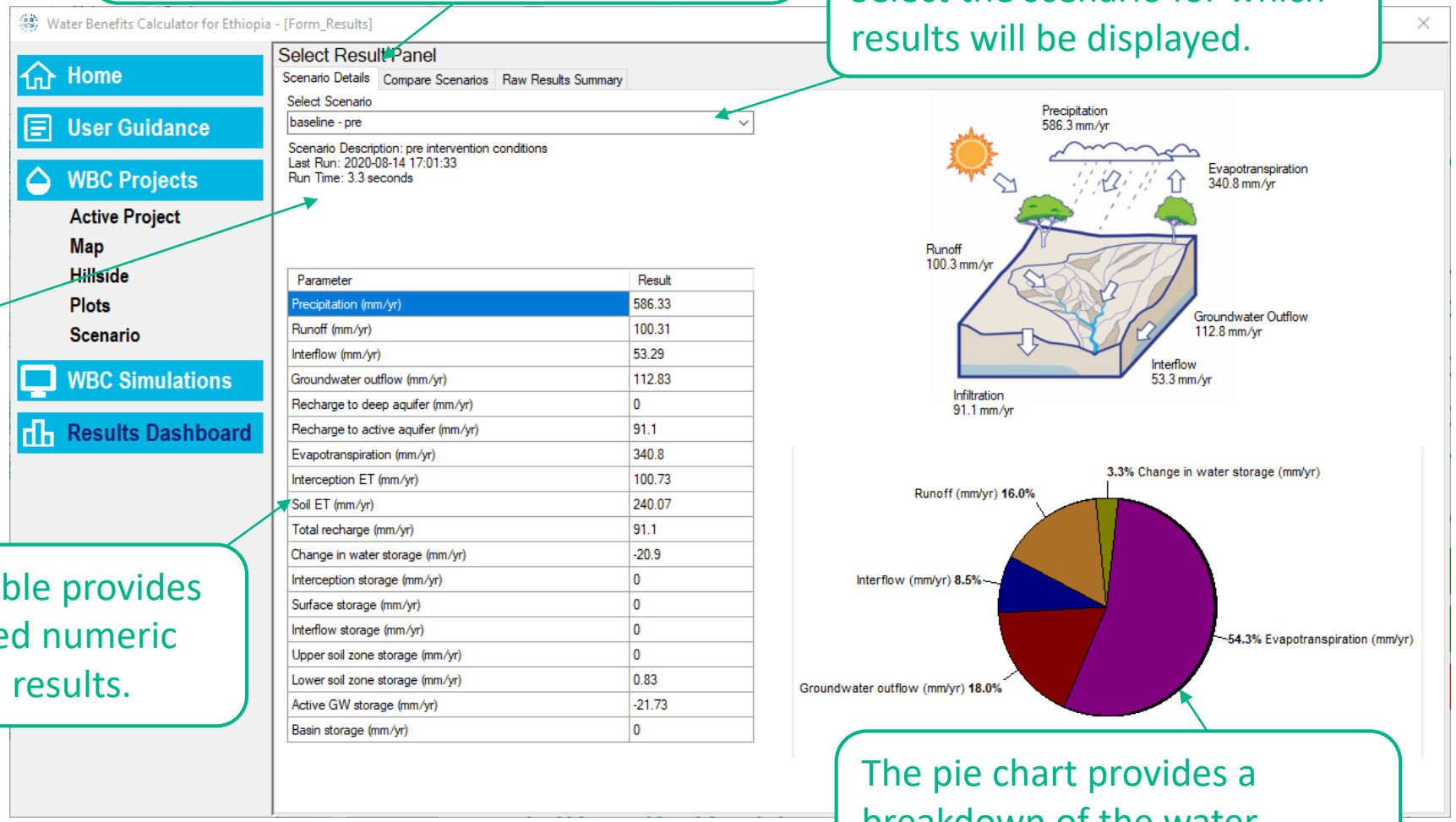
Selecting a tab will toggle between the results tabs which each provide a different level of information.

Select the scenario for which results will be displayed.

The model run metadata will display here

The table provides detailed numeric model results.

The pie chart provides a breakdown of the water budget for scenario.

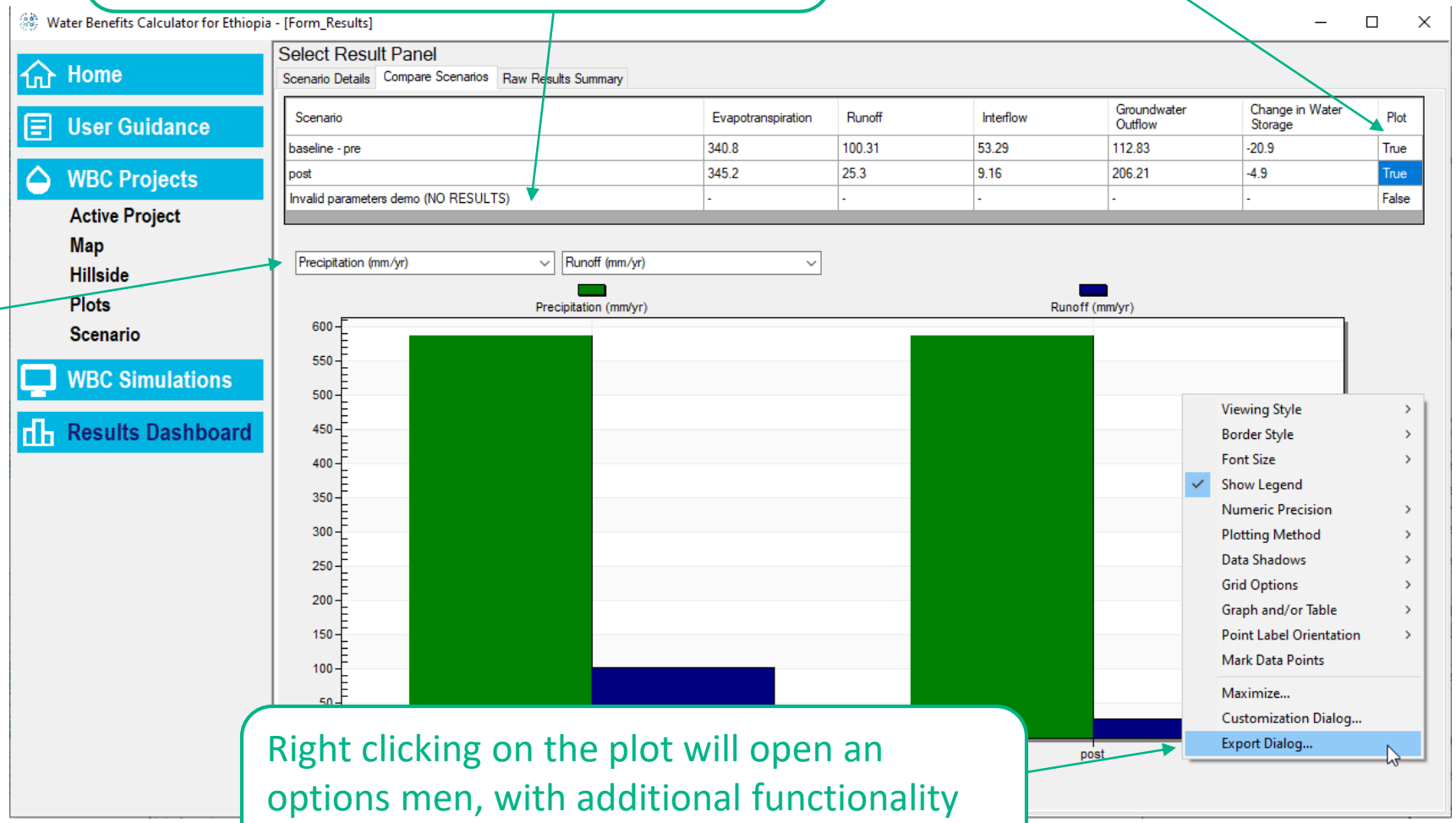


Results Dashboard Form - Comparison Tab

Any scenarios without model results will be flagged with '(NO RESULTS)' appended to the scenario name.

Click to toggle if scenario should be included in plot.

Options to select which parameters to compare



Right clicking on the plot will open an options men, with additional functionality including configuring or export the plot

Results Dashboard Form - Raw Results