**ABOUT**

**General Description:**

This App contains a variety of riparian ecological models of different frameworks, applications, and evaluation methods. As an interface for these models, this App provides two main tools:

(1) a model comparison capability that guides a user in choosing a riparian model based on a set of criteria or a keyword

(2) a set of calculators that correlates to each individual certified model that is included in the App.

**Model Comparison Tool:**

The Model Comparison Tool includes two tabs that can assist the user in selecting a riparian model depending on their intent. The **Criteria** tab is useful in guiding users in finding a model that may be the best fit for them based on their own criteria. This tab layout is set up to include a list of qualitative data that is associated with the included riparian models. Users have the option to search for a model based on region, model type, or metrics that are included in the model, which are categorized by instream and riparian zone processes. The Region and Model Type criteria are displayed as drop-down menus where the user can select one option for each. The metric criteria are displayed as check boxes to allow the user to select multiple metrics that may apply. Once criteria are selected, a display of all the riparian models will appear on the right side of the screen. These models will be ranked by user input and appear in ascending order according to relevancy to the selected criteria. Providing a list of all of the riparian models allows the user to look at multiple models based on their interest.

The second option under the Model Comparison Tool is the **Keyword** tab. This tab serves less as a guide and is intended for users who are looking for a riparian tool based on specific criteria. If the user already has a criterion in mind based on region, model type, or metric, they can enter it as a keyword in the search bar on the left. Once the keyword has been inputted, a list of model(s) will appear on the right and ranked in ascending order by relevancy to the user input. Each model will appear with a table that includes columns of qualitative data that include the model name, general description, region of application, model type, geographic scope, degree of model review, numerical structure, and associated metrics.

**Riparian Model Calculators:**

Nine riparian modeling tools have been included in WARM. Each model is self-contained within a separate tab on the web app under the Calculators menu. The models were programmed based on the equations presented in the respective model documents. Each model is presented with a similar user input table with some variation to accommodate unique aspect of each model. Help text is displayed above input tables to provide users with in-app reference. The tabs flow from top to bottom, left to right, with the exception of the Resaca calculator which requires inputs in the bottom table (to align with original model structure). Cells are color-coded to guide users; for example, black and grey cells indicate that inputs are not required whereas yellow and green cells are used to identify input and output cells, respectively. Once all user inputs are completed within acceptable bounds, outputs auto-populate in a designated cell, such as the "HSI" row of the Bosque Rio Grande calculator. Inputs may be either chosen through a dropdown menu, manually entered, or copy-pasted from a spreadsheet. Likewise, tabulated outputs may be copy-pasted into a spreadsheet.