**Supplemental Table 3.** Model input layer descriptions.

Descriptions and sources of the data used in the suitability model and their limitations.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable/ Input Layer** | **Description** | **Range in study area** | **Method of derivation/source** | **Limitations** |
| Slope | The amount of elevation increase (or rise) divided by the distance of the slope (or run) multiplied by 100, a flat surface is 0 percent, a 45-degree surface is 100 percent, and as the surface becomes more vertical, the percent rise becomes increasingly larger | ≤ 3 to ≤1000 | Slope tool in ArcGIS Pro used on LiDAR-produced DEM by the PABC |  |
| Soil moisture (PAWC) | In mm units at 60–100 cm depth, standard measure of the water holding capacity of the soil for plants. PAW is the maximum amount of water that can be stored within a given soil column from the ground surface to a maximum depth of 150 cm that is available to plants | 12–111 mm | Dataset by Tomislav Hengel and Surya Guta (2019), derived by calculating Water Retention Difference (WRD, difference between the field capacity and wilting point) and then summing WRD by the standard layers (0-200 cm) | 250 m resolution, reference period 1950–2017, data ignores presence of bedrock |
| Soil texture (percent clay) | Clay content in % (kg / kg) at 60 cm depth | 9–63 | Dataset by Tomislav Hengel (2018), from machine learning predictions from global compilation of soil profiles and samples | 250 m resolution, reference period 1950–-2017 |

**References**

Hengl, Tomislav. 2018. Clay Content in % (Kg / Kg) at 6 Standard Depths (0, 10, 30, 60, 100 and 200 Cm) at 250 m Resolution (v0.2). Zenodo. https://doi.org/10.5281/zenodo.1476855, accessed March 22, 2022.

Hengl, Tomislav, and Surya Gupta. 2019. Soil Available Water Capacity in Mm Derived for 5 Standard Layers (0–10, 10–30, 30–60, 60–100 and 100–200 Cm) at 250 m Resolution. Zenodo. https://doi.org/10.5281/zenodo.2784001, accessed October 18, 2021.