



Precision Conservation

Applying advanced spatial analysis techniques to prioritize agricultural and conservation best management practices that provide ecosystem services and have the greatest impact on a landscape

Chesapeake Conservancy is working to reduce the cost and effort of implementing best management practices by helping conservation planners and property owners better understand how water moves across the landscape and what it is, or is not, interacting with before reaching a stream channel. Using advanced flow accumulation algorithms developed by leading scientists, we are producing maps depicting concentrated surface flow at the parcel scale. When combined with high-resolution land cover datasets, these drainage maps can assist in identifying areas that have the greatest potential to reduce sediment and nutrient loads into adjacent water bodies.

The Conservancy has created several web applications that are suitable for non-GIS users to access these products. For example, one application (shown on right) calculates the three largest drainage basins, as well as their outlet points, from a custom polygon. Equipped with this knowledge, users can place best management practices where they will be most effective at intercepting harmful pollutants while minimizing the impact to a landowner's operation.

