

The website, at spatial.redlands.edu/waipunikahaluu, represents a multiyear collaboration between the Edith Kanakaole Foundation, the Watershed Professionals Network, the Redlands Institute and The Kohala Center.

About six years ago, a team of scholars, scientists, technologists and indigenous practitioners gathered to build the foundation for this unique website.

They saw the value in creating an interactive online portal that “carefully and respectfully” integrated place-based scientific and cultural information, along with the latest map modeling, visualization and decision support tools to enhance public awareness. The initiative was about exploring the world from both perspectives.

The effort was strongly supported by the National Endowment for Humanities, which provided the start-up grant that funded the cross-cultural engagement, said Matthews Hamabata, executive director for The Kohala Center.

This project was mostly funded by a \$300,000 grant from the Coastal and Ocean Climate Applications Program of the National Oceanic and Atmospheric Administration Climate Program Office.

Its purpose was to develop a new way to bring Hawaiian knowledge forward in decision-making processes, and to foster informed communities that are better prepared to participate in local land-use and conservation initiatives, Hamabata said.

Hamabata thinks learners of all ages can use the website and The Kohala Center plans to have it available at its mobile learning center at Kahaluu Beach Park.

He believes by building and using greater educational opportunities, Hawaii’s natural and cultural landscapes will be better understood and cared for. The insights gained will lead to better choices and the technology allows for a connection with a greater number of possible stewards, he added.

The site educates users about where local fresh water comes from and how it is affected by ecological disruptions, the current health of the local landscape, the consequences and cumulative effects of contemporary land management practices, and how those practices could be modified to improve and maintain ecosystem health. For instance, with the interactive map, users can change the existing landscape to another land cover, such as agriculture, grassland, native forest and high- or low-intensity development, to get a better idea of the effects to the groundwater aquifer recharge.

The site allows users to explore a virtual model of the Kahaluu watershed, presenting it as a system of water exchanges among climate, weather, vegetation and land use. The site also demonstrates how changes in climate and land use may affect essential fresh water systems, and provides a rich atlas and other resources that explore the culture, history, language and ecosystem of Hawaii through Native Hawaiian landscape concepts and Western science environmental models.

An interactive map can assist local land managers to make informed decisions about the impact of land use changes on groundwater.

“Waipuni Kahaluu integrates a Hawaiian perspective of environmental kinship with modern-day ecological vernacular and technology,” said Kekuhi Kealiikanakaoleohaililani, executive director of the Edith Kanakaole Foundation. “It takes a rigid scientific tool like geographic information system software to a whole new level, by incorporating land and weather points of view to augment what is typically a purely human point of view.”

The project partners plan to extend and enhance Waipuni Kahaluu over the next several years.

This includes possibly increasing the area featured, adding data from ongoing monitoring activities and opportunities that allow citizen science, Hamabata said.

User input is welcomed. The website’s partners want to know how the public is using the website, their thoughts about it and how it might be improved.

Feedback may be sent via email to waipuni@kohalacenter.org.