



The Green Way WITH BRYCE SPRECHER

We all know that water is a central component for sustainable development; it is a necessity for all human needs. Holistic water management is an emerging strategy to achieve the triple bottom line of environmental, social and economic sustainability.

One promising approach to attaining this is to mimic how nature purifies and recycles water to build rather than consume resources. In balanced ecological systems, waste from one living organism becomes food for another. Imitating this process, ecological engineers view pollution as a resource out of place and apply these ecosystem services onto the human landscape as preventative and restorative measures to manage water quality. In particular, the wetland environments serve as the kidneys and livers of the Earth by functioning as robust, living filters and assimilators.

Wetland technologies have been applied for low cost, onsite stormwater and wastewater treatment for reuse and as aesthetic operational strategies for maintaining water features. At Jean-Michel

Cousteau Resort in Fiji, a low cost, low maintenance, wetland wastewater treatment system produces clean water that protects the coral reef environment, which attracts many of its visitors to the resort. On the golf course at Hualalai, Kona, an integrated wetland treatment component was designed and implemented on the fifth hole water feature, Punawai, to reduce O&M costs associated with a previous flow-through design. The project provided a return on investment within two years and now produces seafood and moi for the resort's restaurants.

Industry leaders in environmental action such as these are setting the trends that will change the way we operate the institutions of the future. And with continued support, these initiatives will soon become the norm.

For more information or to inquire about local ecological design and engineering solutions contact Roth Ecological Design International LLC (www.rothecologicaldesign.com). Mahalo Lauren Roth for her contributions to this article!

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