HOW WE GET OUR WATER

Water production from ancient times to today is the result of our islands' unique volcanic origins and indigenous vegetation. Hawaii's fresh water cycle depends on the life-giving rain captured and absorbed by healthy native forests to sustain all of life on our islands:

- **1. CLOUDS FORM** as trade winds push moist air, created by evaporation of ocean water, over high cool mountain ranges.
- **2. RAIN RESULTS** when saturated cloud vapor condenses to water.
- **3.** *Ua* (rain), beloved by native Hawaiians as the preserver of the land (kahiko o ke akua), falls on native forest tree leaves and branches, and low spongy growth that thrives on the forest floor. Also, mist passing through the forest condenses on the leaves, providing additional water.
- **4. RAINWATER SEEPS** through soil and rock to each island's natural underground reservoirs formed by lava flows – called aquifers – for storage. Rainwater also nourishes roots in the ground and flows into surface streams.
- **5. THE WATER** in underground aquifers pools in large lens-shaped bodies to be tapped by wells and tunnels to supply almost all of our vital drinking water.

FENCE BUILDER
We've put up close to 20 miles of fencing covering about 5,000 acres of remote watershed areas on Oahu and Kauai to keep out large hoofed animals to protect native trees and vegetation, but also the habitats of endangered species, such as birds. Fencing helps minimize erosion and preserve the quality of the natural water filtering system. An avid hunter and outdoorsman myself, we are very respectful of the recreational aspects of these remote areas.

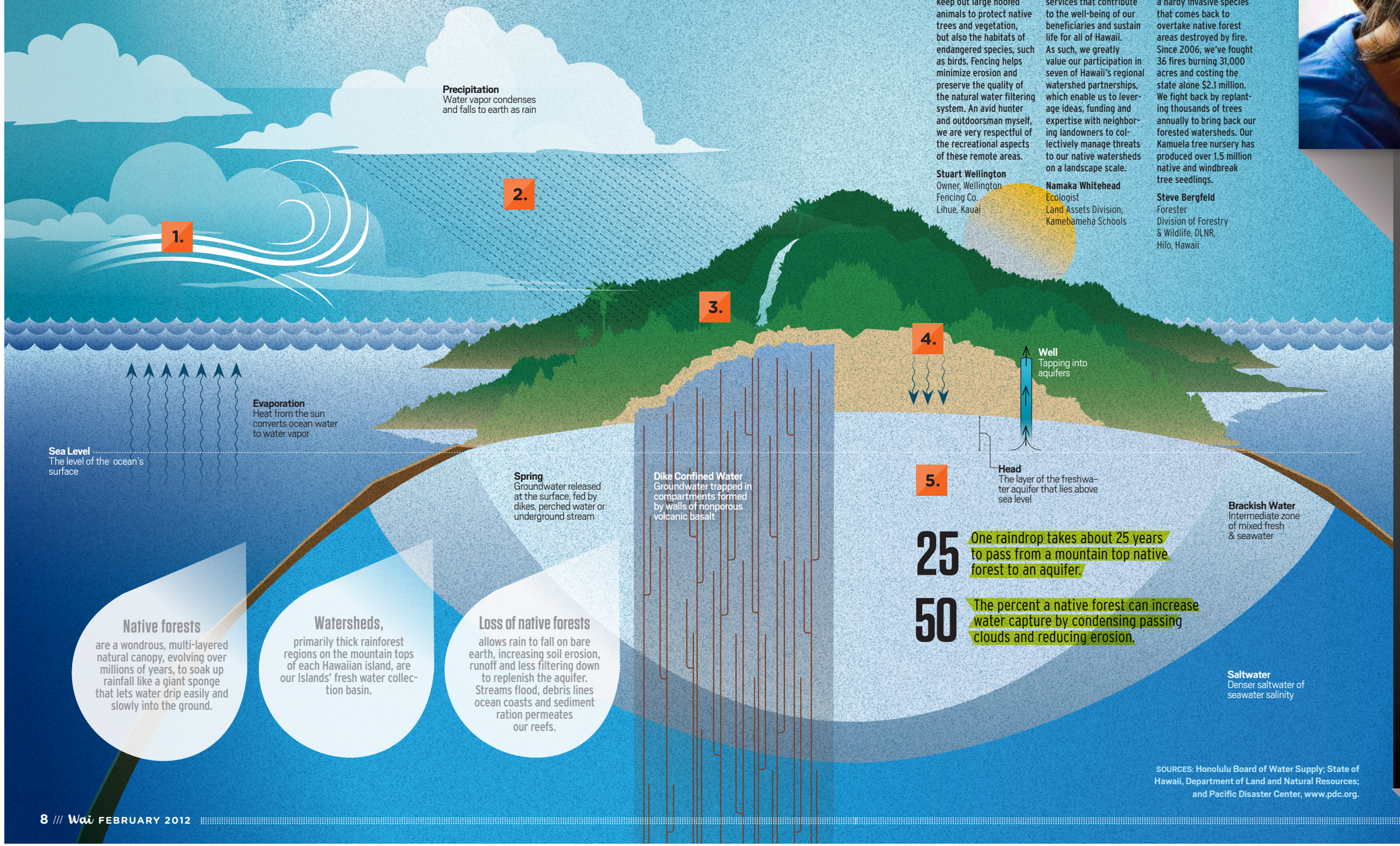
Stuart Wellington
Owner, Wellington Fencing Co.
Lihue, Kauai

PRIVATE LANDOWNER
Kamehameha Schools recognizes that healthy native forested watersheds provide us with a variety of critical services that contribute to the well-being of our beneficiaries and sustain life for all of Hawaii. As such, we greatly value our participation in seven of Hawaii's regional watershed partnerships, which enable us to leverage ideas, funding and expertise with neighboring landowners to collectively manage threats to our native watersheds on a landscape scale.

Namaka Whitehead
Ecologist
Land Assets Division, Kamehameha Schools

FORESTER
Fighting fires in our forested watersheds, one of our most important functions, involves fighting fountain grass, a hardy invasive species that comes back to overtake native forest areas destroyed by fire. Since 2006, we've fought 36 fires burning 31,000 acres and costing the state alone $2.1 million. We fight back by replanting thousands of trees annually to bring back our forested watersheds. Our Kamuela tree nursery has produced over 1.5 million native and windbreak tree seedlings.

Steve Bergfeld
Forester
Division of Forestry & Wildlife, DLNR, Hilo, Hawaii



25 One raindrop takes about 25 years to pass from a mountain top native forest to an aquifer.

50 The percent a native forest can increase water capture by condensing passing clouds and reducing erosion.

SOURCES: Honolulu Board of Water Supply; State of Hawaii, Department of Land and Natural Resources; and Pacific Disaster Center, www.pdc.org.