

## Treatment Option Case Study - Hawaii

(proposed management system)

### Conservation Effects Worksheet

Orchard - Macadamia

(land use and crop)

**Resource Setting:** Pahala, Hawaii

Shallow soils over pahohoe.

Moderate to steep slopes.

Highly erodible.

**Conservation Treatment:**

Field Windbreaks (392)

Permanent Vegetative Cover (340)

Diversion (362)

Mulching (484)

Terrace system (600)

Filter Strips (393)

Grassed Waterways (412)

Pest Management (595)

Irrigation System (441)

Nutrient Management (590)

Sediment Basin (350)

**Resource Problems Before Treatment:**

Sheet and rill erosion

Orchard trees planted in waterways

Gully erosion

Close tree spacing (orchard)

Nutrient and pesticide in runoff

Terraces not maintained

No vegetative cover within orchard

<p style="text-align: center;"><b>ACTIONS</b> (Kinds, Amounts, Timing)</p>	<p style="text-align: center;"><b>EFFECTS</b> (Effects of Continuing Bench System)</p>
<p>Field Windbreaks (392)                      Diversions (362)                       Terraces (600)                      Irrigation (441, 449)                      Grassed Waterway (412)                       Cover Crop (340)                       Filter Strips (393)                       Pest Management (595)                       Mulching (484)                       Biological Control                      Sediment Basin (350)</p>	<p>Reduce wind damage, provides Wildlife habitat                      Reduce gully                      Wildlife habitat                      Reduce sheet and rill and ephemeral gully                      Increase yields                      Outlet for terraces                      Wildlife habitat                      Reduce gully                      Reduce tree/acre                      Reduce sheet and rill and ephemeral gully                      Wildlife habitat                      Increases maintenance                      Reduce sheet and rill and ephemeral gully                      Wildlife habitat                      Increases maintenance                      Reduce tree/acre                      Reduces crop damage                      Increases yield                      Mechanical harvest                      Reduces soil loss                      Conserves moisture                      Reduces pesticide use                      Collects sediment</p>
<p><b>Comments:</b></p>	