



Natural Resources Conservation Service  
300 Ala Moana Boulevard, RM 4-118  
Honolulu, HI 96850

Date: April 27, 2012

**Pacific Islands Area FOTG Notice PI-40**

**SUBJECT: DOCUMENTS FOR 19 CONSERVATION PRACTICES**

This Notice releases documents for the following Section IV updated conservation practices:

1. Conservation Cover (327)
2. Conservation Crop Rotation (328)
3. Cover Crop (340)
4. Cross Wind Trap Strips (589C)
5. Irrigation Pipeline (430)
6. Irrigation Reservoir (436)
7. Irrigation System – Microirrigation (441)
8. Mulching (484)
9. Pumping Plant (533)
10. Residue and Tillage Management – Mulch Till (345)
11. Residue and Tillage Management – No Till/Strip Till/Direct Seed (329)
12. Residue Management – Seasonal (344)
13. Waste Storage Facility (313)
14. Waste Treatment Lagoon (359)
15. Watering Facility (614)
16. Updated Jobsheets only for Critical Area Planting (342), Grassed Waterway (412), Herbaceous Wind Barriers (603), and Vegetative Barrier (601).

**Instructions.**

Please refer to the following table for a description of the specific documents released. The documents have been posted to Pacific Islands Area FOTG, and are available for viewing and printing online at: [http://efotg.sc.egov.usda.gov/efotg\\_locator.aspx](http://efotg.sc.egov.usda.gov/efotg_locator.aspx).

**Contact.**

If you have any questions about:

- 430, 436, 441, 533, 313, 359, and 614 practice documents, contact David Fischer, State Resource Engineer, at (808) 322-2484 ext.105 or at [David.Fischer@hi.usda.gov](mailto:David.Fischer@hi.usda.gov).
- 327, 328, 340, 589C, 484, 345, 329, 344, 342, 412, 603, and 601 practice documents, contact Adam Reed, State Agronomist/Water Quality Specialist, at (808) 541-2600 ext. 134 or at [Adam.Reed@hi.usda.gov](mailto:Adam.Reed@hi.usda.gov).
- This notice, contact Kara Nelson, Resource Conservationist, at (808) 541-2600 ext.121 or at [Kara.Nelson@hi.usda.gov](mailto:Kara.Nelson@hi.usda.gov).

A handwritten signature in blue ink, appearing to read "Kathleen Doblér", written over a light blue circular stamp.

**KATHLEEN DOBLER**  
Acting Director  
Pacific Islands Area

Distribution: AE (All Employees)

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The following is a description of the documents released and changes made to FOTG:

Document	Description
<b>PI FOTG Notice PI-40</b>	New PI Notice.
<b>PI Register of FOTG Notices</b>	Revised PI Register.
<b>Section IV Table of Contents</b>	Revised Section IV Table of Contents.
<b>Section IV – Index of Standards and Specifications</b>	Revised Index.
<b>Updated Jobsheets Only</b>	Critical Area Planting (342), Grassed Waterway (412), Herbaceous Wind Barriers (603), and Vegetative Barrier (601).
<b>Conservation Cover (327)</b> <ul style="list-style-type: none"> <li>• <b>Standard</b></li> <li>• <b>Statement of Work</b></li> <li>• <b>BLANK Jobsheet</b></li> <li>• <b>EXAMPLE Jobsheet</b></li> </ul>	<p><b>Conservation Cover (327)</b> – Establishing and maintaining permanent vegetative cover.</p> <p>This is a new conservation practice standard. The title was changed from “On-Farm Equipment Efficiency Improvements” to “Farmstead Energy Improvement.” The Definition was changed. A new Purpose of “Reduce Energy Use” with accompanying Criteria was added. Technologies with corresponding industry standards were added to the Criteria section.</p>
<b>Conservation Crop Rotation (328)</b> <ul style="list-style-type: none"> <li>• <b>Standard</b></li> <li>• <b>Statement of Work</b></li> <li>• <b>BLANK Jobsheet</b></li> <li>• <b>EXAMPLE Jobsheet</b></li> </ul>	<p><b>Conservation Crop Rotation (328)</b> – Growing crops in a planned sequence on the same field.</p> <p>Two new Purposes of “Reduce Energy Use” and accompanying Criteria were added to (1) Supply plant produced nitrogen to reduce energy use and (2) Manage crop consumptive use of water to conserve water and reduce energy. Where the practice applies was clarified for time basis for annual produced crops. Additional Criteria were added to Improve Soil Quality. The crops grown shall produce a positive OM (Organic Matter) subfactor value over the life of the rotation, as determined by the Soil Conditioning Index procedure, with appropriate adjustments for additions to or subtractions from biomass on the field. This addresses the problem in low rainfall areas where producers could not plan a rotation with multiple other purposes and benefits because they are unable to achieve a positive OM subfactor.</p>
<b>Cover Crop (340)</b> <ul style="list-style-type: none"> <li>• <b>Standard</b></li> <li>• <b>Statement of Work</b></li> <li>• <b>BLANK Jobsheet</b></li> <li>• <b>EXAMPLE Jobsheet</b></li> </ul>	<p><b>Cover Crop (340)</b> – Crops including grasses, legumes, and forbs for seasonal cover and other conservation purposes.</p> <p>The purpose to produce supplemental forage was removed. A Purpose and accompanying Criteria were added to promote biological nitrogen fixation and “Reduce Energy Use” by using legume cover crops. Additional Operation and Maintenance criteria were added to evaluate the onsite application of the practice to ensure the planned purposes are achieved.</p>

Document	Description
<p><b>Cross Wind Trap Strips (589C)</b></p> <ul style="list-style-type: none"> <li>• Standard</li> <li>• Statement of Work</li> <li>• BLANK Jobsheet</li> <li>• EXAMPLE Jobsheet</li> </ul>	<p><b>Cross Wind Trap Strips (589C)</b> – Herbaceous cover established in one or more strips typically perpendicular to the most erosive wind events.</p> <p>The purpose is to induce deposition and reduce transport of wind-borne sediment and sediment-borne contaminants downwind changed to induce windborne sediment deposition. Deleted the purpose to provide food and cover for wildlife. Added two new purposes: induce snow deposition and improve air quality by reducing the generations of airborne particulate matter. The existing criteria in the standard were reformatted to be listed under the appropriate additional criteria for the intended purpose.</p>
<p><b>Irrigation Pipeline (430)</b></p> <ul style="list-style-type: none"> <li>• Standard</li> <li>• Specification – Plastic Pipe</li> <li>• Operation and Maintenance Plan</li> <li>• Statement of Work</li> </ul>	<p><b>Irrigation Pipeline (430)</b> – A pipeline and appurtenances installed to convey water for storage or application, as part of an irrigation water system.</p> <p>New Purposes of “Reduce Energy Use” and “Develop Renewable Energy Systems” along with accompanying Criteria and Reference were added.</p>
<p><b>Irrigation Reservoir (436)</b></p> <ul style="list-style-type: none"> <li>• Standard</li> <li>• Operation and Maintenance Plan</li> <li>• Statement of Work</li> </ul>	<p><b>Irrigation Reservoir (436)</b> – An irrigation water storage structure made by constructing a dam, embankment, pit, or tank.</p> <p>New Purposes of “Reduce Energy Use” and “Develop Renewable Energy Systems” along with accompanying Criteria and Reference were added.</p>
<p><b>Irrigation System, Microirrigation (441)</b></p> <ul style="list-style-type: none"> <li>• Standard</li> <li>• Specification</li> <li>• Operation and Maintenance Plan</li> <li>• Statement of Work</li> </ul>	<p><b>Irrigation System, Microirrigation (441)</b> – An irrigation system for frequent application of small quantities of water on or below the soil surface: as drops, tiny streams or miniature spray through emitters or applicators placed along a water delivery line.</p> <p>The Unit was changed from (No. &amp; Ac.) to (Ac.). A new Purpose of “Reduce Energy Use” and accompanying Criteria were added. The filter permissible design head loss was changed, and a requirement for an Irrigation Water Management Plan was added.</p>
<p><b>Mulching (484)</b></p> <ul style="list-style-type: none"> <li>• Standard</li> <li>• Statement of Work</li> <li>• BLANK Jobsheet</li> <li>• EXAMPLE Jobsheet</li> </ul>	<p><b>Mulching (484)</b> – Applying plant residues or other suitable materials produced off site, to the land surface.</p> <p>A new Purpose of “Reduce Energy Use” and accompanying additional Criteria was added. Criteria were added to the Operation and Maintenance section of the standard to evaluate the effectiveness of the practice to achieve the planned purpose(s).</p>
<p><b>Pumping Plant (533)</b></p> <ul style="list-style-type: none"> <li>• Standard</li> <li>• Specification</li> <li>• Operation and Maintenance Plan</li> <li>• Statement of Work</li> </ul>	<p><b>Pumping Plant (533)</b> – A facility that delivers water at a designed pressure and flow rate. Includes the required pump(s), associated power unit(s), plumbing, appurtenances, and may include on-site fuel or energy source(s), and protective structures.</p> <p>A new Purpose of “Reduce Energy Use” and accompanying additional Criteria was added. The Criteria Applicable to All Purposes was augmented for renewable power units, and</p>

Document	Description
	Additional Criteria Applicable to the Improvement of Energy Efficiency was removed.
<p><b>Residue and Tillage Management – Mulch Till (345)</b></p> <ul style="list-style-type: none"> <li>• <b>Standard</b></li> <li>• <b>Statement of Work</b></li> <li>• <b>BLANK Jobsheet</b></li> <li>• <b>EXAMPLE Jobsheet</b></li> </ul>	<p><b>Residue and Tillage Management, Mulch Till (345)</b> – Managing the amount, orientation and distribution of crop and other plant residue on the soil surface year round while limiting the soil-disturbing activities used to grow and harvest crops in systems where the field surface is tilled prior to planting.</p> <p>A new Purpose of “Reduce Energy Use” and accompanying additional Criteria was added. The revision combined Additional Criteria for wind and water erosion into one set of criteria. Criteria were added to the Operation and Maintenance section of the practice to evaluate on-site performance of the practice. This will help to determine if the purpose(s) are being achieved.</p>
<p><b>Residue and Tillage Management – No Till/Strip Till/Direct Seed (329)</b></p> <ul style="list-style-type: none"> <li>• <b>Standard</b></li> <li>• <b>Statement of Work</b></li> <li>• <b>BLANK Jobsheet</b></li> <li>• <b>EXAMPLE Jobsheet</b></li> </ul>	<p><b>Residue and Tillage Management, No Till/Strip Till/Direct Seed (329)</b> – Managing the amount, orientation and distribution of crop and other plant residue on the soil surface year round, limiting soil-disturbing activities to those necessary to place nutrients, condition residue and plant crops.</p> <p>A new Purpose of “Reduce Energy Use” and accompanying additional Criteria was added. Additional Criteria to Reduce Sheet/Rill Erosion; Reduce Wind Erosion; and Reduce Soil Particulate Emissions were combined into one set of criteria. The Operation and Maintenance had additions to evaluate the function of the practice onsite to ensure the purpose(s) is/are achieved.</p>
<p><b>Residue Management – Seasonal (344)</b></p> <ul style="list-style-type: none"> <li>• <b>Standard</b></li> <li>• <b>Statement of Work</b></li> <li>• <b>BLANK Jobsheet</b></li> <li>• <b>EXAMPLE Jobsheet</b></li> </ul>	<p><b>Residue Management, Seasonal (344)</b> – Managing the amount, orientation, and distribution of crop and other plant residues on the soil surface during a specified period of the year.</p> <p>A new Purpose of “Develop Renewable Energy Systems” and accompanying additional Criteria was added to provide crop residues for bioenergy feedstocks. Then additional criteria to harvest crop residues for bioenergy feedstocks for renewable energy production tied to erosion. Where Practice Applies section was revised to include all cropland where biomass is removed for bioenergy feedstocks. This allows the use of this practice to remove crop residues from other residue management practices without adding specific criteria to each of those practices for biomass removal. Additional Operation and Maintenance criteria were added to evaluate the onsite application of the practice to ensure the planned purposes are achieved.</p>

Document	Description
<p><b>Waste Storage Facility (313)</b></p> <ul style="list-style-type: none"> <li>• <b>Standard</b></li> <li>• <b>Specification</b></li> <li>• <b>Operation and Maintenance Plan</b></li> <li>• <b>Statement of Work</b></li> </ul>	<p><b>Waste Storage Facility (313)</b> – A waste storage impoundment made by constructing an embankment and/or excavating a pit or dugout, or by fabricating a structure.</p> <p>Modified documents for Pacific Islands Area wide use.</p>
<p><b>Waste Treatment Lagoon (359)</b></p> <ul style="list-style-type: none"> <li>• <b>Standard</b></li> <li>• <b>Specification</b></li> <li>• <b>Operation and Maintenance Plan</b></li> <li>• <b>Statement of Work</b></li> </ul>	<p><b>Waste Treatment Lagoon (359)</b> – A waste treatment impoundment made by constructing an embankment and/or excavating a pit or dugout.</p> <p>Modified documents for Pacific Islands Area wide use.</p>
<p><b>Watering Facility (614)</b></p> <ul style="list-style-type: none"> <li>• <b>Standard</b></li> <li>• <b>Specification</b></li> <li>• <b>Operation and Maintenance Plan</b></li> <li>• <b>Statement of Work</b></li> </ul>	<p><b>Watering Facility (614)</b> – A permanent or portable device to provide an adequate amount and quality of drinking water for livestock and or wildlife.</p> <p>This standard was formally reviewed and updated to include public comments received through the Federal Register review process. Criteria were reworded to require escape facilities unless local knowledge and experience indicate that wildlife will not be at risk of drowning.</p>