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April 5, 2012

**CALIFORNIA TECHNICAL GUIDE 450**

**TECHNICAL GUIDE NOTICE NO. 111**

**SUBJECT: Issue New and Revised Documents to the Field Office Technical Guide Sections I & IV**

**Purposes:**

1. To announce two Technical Notes that were posted November, 2011.
2. To issue new and revised California conservation practice standards and specifications, and update the Index of Conservation Practice Standards. Documents are dated March 2012.

**Effective Date:** When contents are received.

**Explanation:**

**Section I:** The following California Technical Notes have been posted:

- Organic Fertilizer Calculator (Agronomy TN 71)
- California Nitrogen Index (Agronomy TN 72)

**Section IV:** The following California Approved Conservation Practice Standards and Specifications have been added or revised to Section IV of eFOTG:

Code	Practice Name	Std	Spec	PR	O&M	SOW
371	Air Filtration and Scrubbing	•	6/	----	----	•
317	Composting Facility	•			•	•
328	Conservation Crop Rotation	•	•	•		•
589C	Cross Wind Trap Strips	•	•	•		•
432	Dry Hydrant	•			•	•
647	Early Successional Habitat Development/Management	•				•
422	Hedgerow Planting	•	•	•		•
315	Herbaceous Weed Control		8/			•

Code	Practice Name	Std	Spec	PR	O&M	SOW
320	Irrigation Canal or Lateral	•	•	•	•	•
388	Irrigation Field Ditch	•	•	•	•	•
464	Irrigation Land Leveling	•	•	•	•	•
460	Land Clearing	•				•
353	Monitoring Well	•			•	•
643	Restoration and Management of Rare or Declining Habitats	•				•
390	Riparian Herbaceous Cover	•				•
610	Salinity and Sodic Soil Management	•	610A	610A		•
578	Stream Crossing	•	•	•	•	•
585	Stripcropping	•	5/			•
606	Subsurface Drain	•	606A	606A	•	•
620	Underground Outlet	•	•	•	•	•
630	Vertical Drain	•			•	•
642	Water Well	•	•	•	•	•
903	Earthfill - Construction Specifications		•			

### **Narrative Summary of Changes to Standards**

**Air Filtration and Scrubbing (Code 371)** —This standard was newly adopted by CA to comply with requirements of the National Air Quality Initiative.

**Composting Facility (Code 317)** — An additional Purpose for organic matter was added, based on comments received from specialty groups. Design criteria for composting facility roofs were changed, based on the revision of practice code 367 – Roofs and Covers.

**Conservation Crop Rotation (Code 328)** – The revised standard adds a Consideration for cropping system diversity and pollinator habitat. Additional criteria have been added to improve soil quality and nutrient balance. (NHCP Notice 150)

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) sub-factor 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 sub-factor. (NHCP Notice 154)

**Cross Wind Trap Strips (Code 589C)** - The Purpose “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.

**Dry Hydrant (Code 432)** – The Criteria section was clarified, Plans and Specification section added a list of items to include, and References were added.

**Early Successional Habitat Development/Management (Code 647)** — This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. We clarified the definition and purpose to include providing habitat for all or part of a species’ life cycle, added additional planting criteria, added a new requirement to use WinPST if using chemicals, added new criteria on the timing of management actions, and supplemented the references. A National Job Sheet is also newly posted.

**Hedgerow Planting (Code 422)** —The Purpose was broadened for aquatic organisms and expanded to add habitat for terrestrial species, specifically pollinators. Criteria were added for pollinator habitat. References were also added.

**Herbaceous Weed Control (Code 315)** — Request Specification if needed from State Range Specialist and Statement of Work added.

**Irrigation Canal or Lateral (Code 320)** — The Purpose section was revised. References were added.

**Irrigation Field Ditch (Code 388)** – Revised Purpose, adding Improvement of Distribution Uniformity and Irrigations Efficiency; revised Criteria, to remove compliance with Federal, State, and local laws and regulations; revised Criteria, changing reference for maximum design velocity from Technical Release 25 to National Engineering Handbook 654; expanded Considerations; expanded Plans and Specifications; and added References.

**Irrigation Land Leveling (Code 464)** — The Purpose section was revised and the “Considerations” section was expanded.

**Land Clearing (Code 460)** – The purpose was rewritten. Criteria was added for soil quality and water quality.

**Monitoring Well (Code 353)** — References to American Society for Testing Materials standards were updated, and minor edits were made. CA additions to the National Standard are identified as italic text.

**Restoration and Management of Rare and Declining Habitats (Code 643)** —The purpose was clarified; added to criteria control of invasive animal species; added the following considerations: landscape influence, disturbance regimes, climate change, project size, and an associated practice list; and made minor edits for clarity.

**Riparian Herbaceous Cover (Code 390)** — This standard was formally reviewed and updated to include public comments received through the *Federal Register* review process. No changes were made. The date of the standard was changed.

**Salinity and Sodic Soil Management (Code 610)** —Updates clarified the “Conditions Where Practice Applies” and “General Criteria Applicable to All Purposes” sections. Separate sections were added for criteria applicable to irrigated lands and to non-irrigated Lands. We expanded the sections for Criteria to Reduce Problems of Crusting, Permeability or Soil Structure on Sodium-Affected Soils, and to Saline Seeps and their Recharge Areas. Specific soil tests are now explicitly required to determine amendments needed to address sodic soil conditions. The “Considerations” section was expanded, detailed requirements were added for “Plans and Specifications,” the “Operation and Maintenance” section was deleted, and the “References” section was reduced.

**Stream Crossing (Code 578)** - Criteria include more details related to passage of aquatic organisms and hydraulic criteria.

**Stripcropping (Code 585)** - Only minor changes were made to this standard. The “General Criteria” section has been revised to require: (1) equal strip widths for erosion susceptible strips and erosion resistant strips; (2) that at least 50 percent of the rotation shall consist of erosion resistant crops or sediment trapping cover; and (3) that the same rotation shall be followed in each adjacent strip while the year of the rotation is staggered to maintain alternating strips in an erosion resistant crop or cover. Under the “Additional Criteria for Soil Erosion by Water ...” section, criteria for maximum row grade has been modified to be the same as the Contouring Standard (330), and criteria was added for cover conditions on the field headlands/end rows. The “Considerations” section of the standard was revised to remove the specific considerations for each of the practice purposes. The “Operations and Maintenance” section of the standard was revised to remove the specific operation and maintenance for each purpose and combined into one common list of activities for operation and maintenance.

**Subsurface Drain (Code 606)** – Revised Purposes, expanded Conditions Where Practice Applies, revised Criteria, expanded Considerations, added Operation and Maintenance, and added References.

Details of changes to Criteria as follows:

Depth and Spacing (pg 2)

1. The minimum depth of cover in organic soils has been increased from 2.5 ft to 3.0 ft unless settlement due to oxidation can be prevented.
2. The analysis for maximum allowable equipment loads has changed. Expect little or no impact on CA work.

Outlets (pg 3)

3. Added statement “Outlets to surface water shall be designed to operate without submergence under normal conditions.”

Placement and Bedding (pg 5)

4. New section: “Placement and Bedding”

**Underground Outlet (Code 620)** —The Purpose section was expanded to include other water concentration areas.

**Vertical Drain (Code 630)** —Additional emphasis was placed on water quality protection if the practice is used.

**Water Well (Code 642)** —The Purpose was clarified to exclude human consumption. Screen entrance velocity criteria were changed in accordance with the American Water Works Association standard.

**Earthfill - Construction Specifications (Code 903)** – Portions were re-written to clear up the language regarding compaction.

The California eFOTG, located on the web at <http://www.nrcs.usda.gov/technical/efotg/> and in my.nrcs at <https://my.nrcs.usda.gov/default.aspx>, is being updated to reflect these changes to Sections I and IV. Previous document versions will be moved to the Archived folder.

(continued next page)

**Optional Filing Instructions (for hard copies of FOTG maintained in Field Offices)**

Remove the “Index of Conservation Practice Standards and Specifications Index – Alphabetical Index” contents, pages 1-12, dated October 3, 2011. This will not be replaced.

Replace “Index of Conservation Practice Standards and Specifications Index – Numerical Index” contents, pages 1-12, dated October 3, 2011, with the new “Index of Conservation Practice Standards and Specifications, Numerical Order” contents, pages 1-8, dated March 30, 2012.

Remove the old practice standards, specifications, practice requirements, operation and maintenance, and statements of work and insert the new practice standards and documents issued above in Section IV.

A handwritten signature in black ink that reads "Kurt Simon". The signature is written in a cursive, flowing style.

Kurt Simon  
Acting State Resource Conservationist

ATTACHMENTS: (electronic) (Copies will be posted to the California eFOTG.)

DIST: O