Natural Resources Conservation Service

WASHINGTON

WQT08 – Decrease irrigation water quantity or conversion to non-irrigated crop production

CSP Enhancement Washington State Supplement

Land Use Applicability: Cropland, Pastureland

January 2014

Client/Operating Unit:		Tract Number:	
Farm/Ranch Location:		Farm Number:	
Specifications Date:		Field Number(s):	
Planned Installation Date:		Proposed Treatment Acres:	

Enhancement Description:

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This enhancement consists of reducing the total quantity of irrigation water used to produce crops and forages or the conversion of land to non-irrigated production.

Benefits

In areas where ground water or surface water supplies are limited, the reduction of irrigation water used or the conversion of irrigated cropland or pasture to non-irrigated (dry) cropland, non-irrigated pasture or range land, has the immediate benefit of conserving a scarce resource. Where irrigation water is pumped, elimination of pumping will also reduce energy usage and improve air quality if internal combustion engines were used for pumping on the farm.

Conditions Where Enhancement Applies

This enhancement only applies to crop or pasture land uses where there is acreage that has been irrigated a minimum of 2 years out of the last 5 years.

Criteria for decreasing irrigation water quantity or conversion to non-irrigated crop production

1. The water that would have been used for irrigating land where this enhancement is implemented cannot be used to irrigate other acreage on the farm or the water rights sold to another landowner.

2. The land must:
   - Receive a reduced quantity of irrigation water due to rotational adjustments, and/or
   - Be converted to growing crops, pasture species or other vegetation that can be expected to survive under the normally expected rainfall regime.

3. Regardless of the type of vegetation grown on the land after removal of irrigation or reduction of water application, invasive species must be managed.

4. Conversion to dryland production or the reduction of irrigation application must include the necessary changes in management of the land to improve the success of the change, such as, changes to drought tolerant crops or cultivars, changed crop rotations and installation of moisture capturing practices (i.e., mulch tillage, no-till, reduced tillage, chemical weed control versus conventional tillage, herbaceous wind barriers, trap strips, strip cropping, etc.),and practices to maintain erosion at or below soil loss tolerance (T).

5. A flow meter must be installed to measure quantities of water used. Open channel systems may utilize irrigation district measurements to determine quantities of water used.

6. The total cumulative quantity of irrigation water must be reduced by 25% and maintained at 25% or more over the rotation (i.e., from the initiation of the reduction to the end of the agreement with NRCS).

Layout Sketch & Drawing (Provide sketch, drawings, maps, and/or aerial photographs.)

- Geo-referenced field map with all delineated treatment areas where CSP Enhancement WQT08 is to be applied.

Adoption Requirements

This enhancement has been adopted when the cumulative irrigation water quantity has been decreased by 25% as compared to the previous 5 years.

Documentation Requirements

1. A map showing areas of quantity reduction or conversion to non-irrigated land,
2. Documentation of the amount of water used for irrigation in the previous 5 years,
3. Flow meter measurements for each crop for the entire rotation,
4. Record of crop rotation and species (cultivars) planted,
5. Records that show cumulative reduction in irrigation water application for rotation,
6. Documentation recording implementation of required management practices, and
7. Documentation that water saved was not used on other part of the operation or sold to another landowner.

References*:

Amosson, S.H., L.K. Almas, F. Bretz, D. Gaskins, B. Guerrero, D. Jones, T. Marek, L. New and N. Simpson. 2006. Water Management Strategies for Reducing Irrigation Demands in Region. Prepared for Agricultural Sub-Committee, Panhandle Water Planning Group.

http://www.twdb.state.tx.us/rwpg/2006_RWP/RegionA/Appendices/Appendix%20Q.pdf

Cropping Options for Limited Water Supplies in Northeast Colorado, 2003

Field Office Technical Guide:

eFOTG, http://www.nrcs.usda.gov/technical/efotg/

The Washington State Irrigation Guide.

http://www.wa.nrcs.usda.gov/technical/ENG/irrigation_guide/index.html

The irrigation management online scheduler.

http://oiso.bioe.orst.edu/RealtimeIrrigationSchedule/

The BORerclamation weather data site. You can run it on your own or use the online scheduler program.

A Practical Guide to Choosing Crops Well-Suited to Limited Irrigation

A Practical Guide to Choosing Crops Well-Suited to Limited Irrigation

*** Some online documents may take several minutes to download.**

State Supplemental Information

States need to develop suitable crop rotations, cultivars, and/or moisture capturing practices.

Use the irrigation water management practice Standard (449). This could be through irrigation scheduling (See Link Above).

Another option is to install a more efficient irrigation system, (Practice Standards 442 Irrigation System, Sprinkler and 441 Irrigation System, Microirrigation), better sprinklers, better uniformity.

For suitable crops and crop rotations refer above to: ***A Practical Guide to Choosing Crops Well-Suited to Limited Irrigation***

Documentation Form

Producer: _____ **Date:** _____

Tracts: _____ **County:** _____

1. A map showing areas of quantity reduction or conversion to non-irrigated land,

2. Documentation of the amount of water used for irrigation in the previous 5 years,

3. Flow meter measurements for each crop for the entire rotation,

4. Record of crop rotation and species (cultivars) planted,

5. Records that show cumulative reduction in irrigation water application for rotation,

6. Documentation recording implementation of required management practices, and

7. Documentation that water saved was not used on other part of the operation or sold to another landowner.

			Crop Rotation and Species (Cultivars) Planted				
Field(s)	Acres	Date	Crop 1	Crop 2	Crop 3	Crop 4	Crop 5

Client's Acknowledgement (To be signed before the Enhancement is applied.)

By signing below, I acknowledge that I:

- **have reviewed and understand the site specific design, installation specifications and operation/maintenance requirements in this State Supplemental Sheet and have an understanding of the purpose(s) of this Enhancement;**
- **will install, operate, and maintain this Enhancement in accordance with the National Sheet, the Washington State Supplemental Sheet and the site specific specifications.**
- **will make no changes to the planned design and installation without prior written approval of the Natural Resources Conservation Service.**
- **will obtain all necessary permits and/or rights, and comply with all ordinances and laws pertaining to the installation, operation, and maintenance of this Enhancement, prior to the start of installation; and**
- **will assume responsibility for notifying all Utilities affected by the installation, operation and maintenance of this Enhancement.**

Signature	**Date**

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