TGN 395

TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE STATE OF COLORADO NATURAL RESOURCES CONSERVATION SERVICE

BIOLOGY NOTE 5 **SEPTEMBER 11, 1995**

TO: All Offices

FROM: Terri Skadeland
State Biologist

PURPOSE

To transmit changes to Colorado Wetland Mapping Conventions.

Attached are changes to Colorado's Wetland Mapping Conventions. The following changes are effective as of August 27, 1995.

1) Page 4, Item 9(d) is changed to read: "Normal monthly precipitation occurs when the total for that month falls between the "30% chance will have" values on the WETS table. Use the WETS table from the closest station."

2) Page 6, Item 5 is changed to read: "NRCS will coordinate with FWS as outlined in the NFSAM part 513.21."

3) Page 8 was revised to add Appendix H.

4) Pages 26 & 27 were added.

Please replace pages 4, 6, 8, and 9, and insert the new pages 26 & 27 in Biology Technical Note #5 (Colorado Wetland Mapping Conventions) to reflect these changes.

5. Review the ASCS aerial photograph received with the AD-1026 form. Where quality of the photocopy provided by ASCS is poor refer to original photo.

6. Review USGS quad sheets for drainage and other man-made water features such as ponds, canals, drainage ditches, etc. Depending upon the vintage of quad sheets, altered vs. natural drainage conditions may be determined from present photography.

7. Review other available ASCS or SCS photographs such as 4" = 1 mile black and white or color infrared photographs.

8. Obtain ASCS color slides (and/or color infrared) if available. A minimum of 5 years of aerial photos or slides should be used. If less than 5 years of slides are available, refer to Appendix C to determine if an on-site determination should be used.

9. Use hydrological and/or climatological data to determine those years which were above or below normal precipitation 2 to 3 months prior to the date of the slide. Review the climatological data to identify long term hydrological conditions, using the following procedure:

a. Obtain the month and year of aerial photography or ASCS slides.

b. Obtain growing season stream gage or precipitation data, preferably before each flight. The precipitation data can be obtained from the Climatic Data Access Facility (CDAF) or National Climatological Data Center. Check with the Climatic Liaison (hydraulic engineer) in the SCS State Office when obtaining the data.

c. If the wetland signature occurred in only wet years, more detailed hydrologic analysis is needed. If the signature occurs in both normal and dry years (not necessarily every year), the hydrology of the site has been confirmed. If possible, select an equal number of wet and dry years.

d. Normal monthly precipitatin occurs when the total for that month falls between the "30% chance will have" values on the WETS table. Use the WETS table from the closest station." Appendix H has an example of a WETS table and the associated monthly precipitation totals for that site.

e. Field observations may be necessary if photo signatures and office information are inconclusive or contradictory. Field observations will be completed in accordance with the NFSAM or CEWDM (as appropriate).

10. When reviewing aerial photography (including ASCS slides), the following criteria may be indicators of a wetland:

e: ts to justify an off-site determination. This off-site option applies only to the following determinations: W, PC, CW, FW, FWP, WX, AW, and W/AW. The W/AW determinations are subject to the requirements in item 2 below. All other determinations must be done on-site. These determinations include MW, CWNA, MIW, CWTE, RSW, RVW, and RPW.

2. Mapping wetlands adjacent to or within irrigated areas will require special effort because not all those wetlands were caused by irrigation. Thus, they cannot be automatically assumed to be AWs. It is true that many natural wetlands in this arid part of the United States have been expanded or enhanced by irrigation waters and water conveyance or storage facilities. Furthermore, after several years of irrigation, hydric soils, hydrophytic vegetation, and other natural wetland characteristics often become established in created wetlands. These wetlands have extremely high values for wildlife and are also valuable for other wetland functions, particularly filtration. Therefore, extra wetland determination effort is warranted if W and AW possibly overlap in the same location.

If use of historical photography, soil maps, and other data will enable a general discrimination between the two designation types, draw separate polygons and label them accordingly. If they cannot be separated, use the dual W/WA determination, and for purposes of the NFSAM, treat the entire wetland as a W. Further, if it is unclear if the area is predominantly an AW or a W, treat it as a W, do not treat it as an AW unless documented in an interagency field visit. Also, areas within natural drainages which are irrigated should be labeled W/AW when using off-site techniques unless conclusive evidence indicates otherwise. Examples of W/AW may be permanent or intermittent streams; basins or depressions; or other topographic features located within irrigated areas which concentrate water. In these cases, notify the person in writing that an on-site delineation will be needed if any manipulations are planned in the designated W/AW area.

3. If the available data is inconclusive, or the wetland determination has been appealed, the SCS will complete a field wetland determination or delineation using the NFSAM or the CEWDM as appropriate.

4. Each photograph used to identify wetland boundaries (if done using off-site procedures/conventions) will display a note to the effect that "The wetland boundaries depicted on this photograph were identified from aerial photography and were not field checked. Therefore, the boundary does not represent an on-site determination or delineation. Wetlands identified by this methodology will be accepted as existing by the COE, FWS, and EPA for the purposes of FSA/FACTA and Section 404 of the CWA. Cases involving manipulation of the wetlands depicted will require an on-site delineation."

5. NRCS will coordinate with FWS as outlined in the NFSAM part 513.21.

IV LIST OF APPENDIXES

A. FORMS
   1. SCS-CPA-026 "Highly Erodible Land and Wetland Conservation Determination"
   2. AD-1026 "Highly Erodible Land Conservation (HELC) and Wetland Conservation (WC) Certification"
   3. Wetland Identification Record
B. HYDRIC SOIL CRITERIA
C. GUIDELINES FOR MAKING DETERMINATIONS
D. FSA WETLANDS MAP SYMBOLS
E. COE DISTRICT BOUNDARIES AND MAILING ADDRESSES
F. WETLAND INFORMATION RESOURCES
G. DEFINITIONS/ACRONYMS
H. WETS TABLE AND LONG TERM MONTHLY PRECIPITATION TOTALS

V. CHANGES IN PROCEDURES

Any changes in procedures, as concurred upon in this document, will require agreement by all four signatory federal agencies at the state level. The NRCS will consult and coordinate with all four signatory agencies to make any changes in procedures as they are proposed. Such changes in procedures will take effect upon concurrence of the modified document by all signatory agencies at the state level. After each EPA oversight team periodic review, these mapping conventions will be re-evaluated and modified as necessary.

Any changes in mapping conventions will be made in accordance with procedures as outlined in the Memorandum of Agreement Section V-A, concerning the wetland delineation for purposes of Section 404 of the Clean Water Act and subtitle B of the Food Security Act.

These state mapping conventions, as concurred upon, will take effect on the date of the last signature below and will continue in effect until modified or terminated by agreement of all signatory agencies or terminated by any of the signatory agencies alone upon 30 days written notice.

total 1961-1994 prcp

Station : CO1179, BYERS 5 ENE
Unit = inches

yr	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	annl
61	M0.01	0.26		M0.76	M1.96	1.34	2.38	2.30	3.75	0.50	M0.38	M0.24	13.88
62	M0.89	M0.51	0.43	1.10	1.57	5.62	0.81	0.47	0.52	0.75	0.42	0.14	13.23
63	M0.72	0.14	1.27	0.97	0.28	2.31	0.85	3.24	4.69	0.13	0.22	M0.38	15.20
64	M0.02	0.76	0.80	0.97	2.99	1.95	1.64	1.91	1.47	0.12	0.31	0.15	13.09
65	0.85	0.87	1.22	0.38	1.79	8.01	2.28	1.52	1.99	0.97	0.00	0.70	20.58
66	0.54	0.44	0.77	1.04	0.46	1.22	2.62	2.11	4.78	1.58	0.15	0.08	15.79
67	0.66	0.29	0.82	2.46	5.53	4.76	4.57	0.81	1.36	0.67	0.67	1.05	23.65
68	0.28	0.35	0.47	1.53	1.88	0.86	2.41	1.83	0.36	0.50	0.76	0.27	11.50
69	0.24	0.18	0.72	0.81	5.85	2.71	3.80	2.95	1.52	4.22	0.34	0.42	23.76
70	0.02	0.01	1.15	0.95	1.03	1.90	2.07	1.73	1.50	0.91	0.78	0.10	12.15
71	0.52	0.88	0.49	1.72	1.14	0.74	0.91	2.26	2.20	0.12	0.31	0.06	11.35
72	0.47	0.17	0.49	2.09	2.84	3.02	1.11	2.17	2.16	0.27	2.74	M0.62	18.15
73	0.86	0.00	1.77	1.62	5.80	1.00	1.07	0.28	3.44	0.70	0.54	1.60	18.68
74	0.36	0.49	1.37	1.71	0.17	3.07	3.53	0.42	0.37	0.81	0.72	0.17	13.19
75	0.11	0.23	0.20	1.06	6.06	1.62	1.93	0.83	0.08	0.07	1.41	0.10	13.70
76	0.27	0.31	0.57	1.40	3.72	0.96	2.38	0.94	2.10	0.69	0.27	0.08	13.69
77	0.12	0.11	0.74	2.49	1.25	2.06	4.37	0.64	0.03	0.02	0.60	0.17	12.60
78	0.27	0.31	0.22	0.94	3.75	2.59	1.05	0.82	0.00	1.14	0.42	0.73	12.24
79	0.44	0.19	2.35	1.70	1.90	1.74	1.24	3.38	0.25	0.83	2.01	0.61	16.64
80	0.61	0.25	1.01	1.58	2.93	0.46	2.64	1.74	1.30	0.03	0.68	0.00	13.23
81	0.15	0.33	3.34	0.98	4.19	1.64	1.84	1.70	0.09	0.77	0.11	0.29	15.43
82	M0.31	0.17	0.13	0.32	4.07	2.95	1.17	2.20	1.90	0.78	0.89	1.30	16.19
83	0.00	0.21	3.02	2.14	3.08	2.70	2.11	3.35	0.06	0.18	1.75	0.48	19.08
84	0.25	0.91	1.09	3.54	1.58	0.92	1.37	4.17	0.61	3.73	0.20	0.31	18.68
85	0.57	0.49	0.54	1.43	2.65	1.69	5.17	0.52	2.95	0.29	0.82	0.45	17.57
86	0.12	0.21	0.41	2.46	1.70	1.67	2.60	1.88	1.05	1.01	0.38	0.58	14.07
87	0.34	1.01	0.88	0.62	4.97	2.40	1.01	2.30	0.91	0.46	1.07	0.81	16.78
88	0.48	0.28	0.77	0.57	4.33	1.21	1.28	0.98	1.16	0.00	0.13	0.61	11.80
89	1.15	0.44	0.46	0.45	2.42	2.36	1.95	0.90	0.94	0.45	0.10	0.52	12.14
90	0.97	M0.18	1.93	0.69	1.59	0.52	2.11	2.42	1.16	1.12	1.13	0.07	13.89
91	0.22	0.00	0.92	0.69	2.07	2.71	5.93	1.79	0.89	0.46	1.96	0.19	17.83
92	0.88	0.04	2.97	0.67	0.52	3.01	2.71	2.78	0.04	0.21	0.97	0.42	15.22
93	0.50	0.73	0.32	1.82	1.22	3.29	2.82	1.63	1.79	1.66	0.97	0.22	16.97
94													

Notes: Data missing in any month have a 'M' flag
Data missing for all days in a month is blank

WETS Station : BYERS 5 ENE, CO1179
Latitude: 3945 Longitude: 10408 Elevation: 05100
State FIPS/County(FIPS): 08001 County Name: Adams
Start yr. - 1961 End yr. - 1990

Month	Temperature (Degrees F.)			Precipitation (Inches)				
					30% chance will have		avg # of days w/.1 or more	avg total snow fall
	avg daily max	avg daily min	avg	avg	less than	more than		
January	41.4	11.2	26.3	0.43	0.22	0.55	1	6.2
February	46.0	16.3	31.2	0.37	0.21	0.46	1	4.7
March	52.9	22.5	37.7	1.01	0.56	1.24	3	11.7
April	63.3	31.2	47.2	1.35	0.89	1.62	3	4.9
May	72.4	40.7	56.6	2.78	1.54	3.39	5	0.3
June	83.2	49.6	66.4	2.20	1.33	2.67	4	0.0
July	89.8	55.8	72.8	2.14	1.48	2.55	5	0.0
August	87.4	53.9	70.6	1.76	1.08	2.13	4	0.0
September	78.5	44.9	61.7	1.49	0.57	1.86	3	0.7
October	67.4	33.3	50.4	0.79	0.29	0.99	1	3.4
November	52.4	21.6	37.0	0.68	0.35	0.86	2	5.3
December	43.2	13.1	28.2	0.44	0.21	0.55	1	6.2
Annual	-----	-----	-----	------	13.59	16.89	--	----
Average	64.8	32.8	48.8	------	------	------	--	----
Total	-----	-----	-----	15.45	------	------	33	43.4

GROWING SEASON DATES

Probability	Temperature		
	24 F or higher	28 F or higher	32 F or higher
	Beginning and Ending Dates Growing Season Length		
50 percent *	4/22 to 10/14 175 days	5/ 3 to 10/ 2 152 days	5/11 to 9/2 137 days
70 percent *	4/17 to 10/19 185 days	4/28 to 10/ 6 161 days	5/ 7 to 9/3 146 days

* Percent chance of the growing season occurring between the Beginning and Ending dates.

TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE STATE OF COLORADO SOIL CONSERVATION SERVICE

BIOLOGY NOTE NO. 5 **September 9, 1994**

TO: All Field Offices
All Area Offices

FROM: Terri Skadeland
State Biologist

RE: Wetland Mapping Conventions for Food Security Act (FSA) Wetland Inventories and Wetland Determinations

The attached Colorado Wetland Mapping Conventions replace Biology Tech Note #5 dated February 1993. Offices should retain note dated 2/28/89 until wetland oversight teams check existing inventories for compliance with the new mapping conventions.

The revised Mapping Conventions were developed by a team of SCS, EPA, FWS, and COE Biologists at the state level and are in line with the January 6, 1994 wetland MOA among those four agencies.

ATTACHMENT

M-4335 USDA-SCS-PORTLAND, OREG 1965

COLORADO
OFF-SITE WETLAND MAPPING CONVENTIONS
FOR THE 1985 FOOD SECURITY ACT (FSA);
THE FOOD, AGRICULTURE, CONSERVATION, AND TRADE ACT OF
1990 (FACTA); AND SECTION 404 OF THE
CLEAN WATER ACT (CWA)

I. INTRODUCTION

This document outlines the procedures and methods which will be used to achieve interagency concurrence in implementing the Memorandum of Agreement (MOA) among the Department of Agriculture Soil Conservation Service (SCS), the Environmental Protection Agency (EPA), the Department of the Interior United States Fish and Wildlife Service (FWS), and the Department of Army Corps of Engineers (COE), dated January 6, 1994. These procedures and methods are designed to ensure mapping consistency within the state of Colorado. These conventions are compatible with the 3rd edition of the Soil Conservation Service National Food Security Act Manual (NFSAM) and the 1987 Corps of Engineers Wetland Delineation Manual (CEWDM). For agricultural lands, the signatory agencies will use the procedures for delineating wetlands as described in the NFSAM. For areas that are not agricultural lands the signatory agencies will make wetland delineations using the CEWDM, with current national COE guidance.

These procedures will be applicable for off-site wetland determinations. site wetland delineation procedures will follow NFSAM or CEWDM cedures as appropriate for the site. Determinations indicate the presence or absence of wetlands and their status (e.g., farmed, converted, artificial). Delineations result in the establishment of a wetland boundary. Landowners that have a wetland determination from SCS and propose an activity which may impact a wetland will be encouraged to contact the SCS or COE prior to commencement. This will allow, if necessary, an on-site wetland delineation and help to insure that landowners maintain compliance with FSA and Clean Water Act (CWA) requirements. The CPA-026 (Appendix A1) or transmittal letter will have the following entry in the Remarks section: "Should you plan an activity that may impact wetlands, you are encouraged to contact the SCS or COE so that an on-site delineation of the wetland boundaries can be performed."

II. GENERAL INFORMATION

A. Wetlands located on agricultural lands will be delineated using the NFSAM. Wetlands located on non-agricultural lands including narrow bands and small pockets interspersed among agricultural lands will be delineated using the CEWDM. Areas of native pasture that have been invaded by non-native species (ie. bromegrass or timothy) will be considered non-agricultural land. Where SCS personnel delineate wetlands of one half acre or more on non-agricultural lands, they will coordinate with the COE or the EPA in accordance with paragraph IV-B of the MOA.

The principal tools used to make the wetland determination are: soil veys, United States Geological Survey (USGS) quads, weather data, ional Wetlands Inventory (NWI) maps, soil surveys, stream gage data, Agricultural Stabilization and Conservation Service (ASCS) color slides,

eral Emergency Management Agency (FEMA) flood hazard maps, and aerial tographs. Other data, such as other federal, state, local, or applicant maps may also be used.

C. This process will consider both above normal and below normal precipitation years.

D. Wetland areas large enough to be detected when interpreting aerial photography will be determined to be wetland regardless of size. Very small wetlands (ie. wet spots) may require an on-site delineation to verify wetland criteria.

E. Decisions and the supporting material used will be documented for each step of these guidelines. Field checking will be done until the reviewing person or mapping team has become proficient at photo interpretation in each mapping location.

F. Final FSA/FACTA wetland determination decisions are the responsibility of the SCS District Conservationist. An on-site inspection may be needed before a final determination is issued.

G. The District Conservationist will refer all activities involving the discharge of dredged or fill material into waters or wetlands including excavation to the Corps of Engineers Regulatory Office. All activities that may affect water supply or water rights will be referred to the orado State Engineer. All activities that may involve degradation of er quality will be referred to the Water Quality Control Division of the Colorado Department of Health.

H. If a tract has both agricultural land where a determination was made and non-agricultural land where no determination has been made, the CPA-026 will have the following entry in the Remarks section: "The areas labeled 'no determination' were not included in this wetland determination. Therefore, wetlands may exist on those areas. Any future manipulations to those areas will need a determination for FSA/FACTA and CWA."

I. In addition, areas such as lakes, ponds, gravel pits, rivers, streams, canals, ditches, etc. will be mapped. The landowner will be advised to contact the SCS/COE to determine jurisdiction when a disturbance to these areas is planned.

J. Agricultural lands which become abandoned or where there is a letter of intent to abandon will be delineated by SCS or COE using the CEWDM as these areas would no longer be considered agricultural lands under the MOA.

K. Agricultural lands without an existing wetland inventory will be inventoried according to these conventions. Areas with an existing wetland inventory will be checked by the District Conservationist and the oversight team for compliance with these conventions.

For non-agricultural lands, on-site determinations will usually be essary because of a lack of photography or difficulty in interpreting wetland hydrology from photography. This is especially true for irrigated pasture or hayland in mountain areas.

For areas above 8,000 feet elevation, determinations will be done on-site according to the NFSAM or the CEWDM.

III. PROCEDURES

Wetlands will be determined using the following procedures.

A. GET EXISTING DATA

1. Review the Form AD-1026. If the producer has answered affirmatively to questions 11, 12, or 13, the District Conservationist will use on-site procedures to delineate wetlands in accordance with the NFSAM or the CEWDM. (See Appendix A2).

2. Review the appropriate hydric soil list in the SCS Field Office Technical Guide (FOTG) and official soil survey. Determine if the site has a hydric soil map unit or a map unit with hydric inclusions or has any wet miscellaneous areas or spot symbols such as marshes, depressional areas, river wash, or water areas that meet hydric water table, ponding, or flooding criteria. It is possible for any map unit to have hydric inclusions even if these indications of hydric soil are absent. See Appendix B for hydric soil criteria taken from "The Hydric Soils of the United States."

Review NWI maps where available. In some areas, only draft maps are available. In those areas, the draft maps will be used. NWI maps will give an overview of the wetlands in the area. All wetlands on the NWI map will be considered wetlands for these conventions unless review of the ASCS slides or other information fails to confirm the area as meeting wetland criteria. This could happen for the following reasons:

a. Review of the ASCS slides from wet years does not show basins as having water, hydrophytic vegetation, drowned out crops, or different crop colors.

b. The wetland has been drained since the NWI maps were prepared. Look for manipulation such as ditches, new tile lines, dikes, or levees.

c. The NWI maps are prepared primarily by stereoscopic analysis of high altitude aerial photographs. Wetlands are identified on the photographs based on vegetation, visible hydrology, and geography, in accordance with "Classification of Wetlands and Deep Water habitats of the United States" (Cowardin et al., 1979). The aerial photographs typically reflect conditions during the specific year and season in which they were taken and may not represent the normal situation.

Report NWI errors to the Regional NWI Coordinator, Chuck Elliot at P. O. Box 25486, Denver Federal Center, Denver, CO 80225.

Review the ASCS aerial photograph received with the AD-1026 form. Where lity of the photocopy provided by ASCS is poor refer to original photo.

6. Review USGS quad sheets for drainage and other manmade water features such as ponds, canals, drainage ditches, etc. Depending upon the vintage of quad sheets, altered vs. natural drainage conditions may be determined from present photography.

7. Review other available ASCS or SCS photographs such as 4" = 1 mile black and white or color infrared photographs.

8. Obtain ASCS color slides (and/or color infrared) if available. A minimum of 5 years of aerial photos or slides should be used. If less than 5 years of slides are available, refer to Appendix C to determine if an on-site determination should be used.

9. Use hydrological and/or climatological data to determine those years which were above or below normal precipitation 2 to 3 months prior to the date of the slide. Review the climatological data to identify long term hydrological conditions, using the following procedure:

a. Obtain the month and year of aerial photography or ASCS slides.

b. Obtain growing season stream gage or precipitation data, preferably before each flight. The precipitation data can be obtained from the Climatic Data Access Facility (CDAF) or National Climatological Data Center. Check with the Climatic Liaison (hydraulic engineer) in the SCS State Office when obtaining the data.

c. If the wetland signature occurred in only wet years, more detailed hydrologic analysis is needed. If the signature occurs in both normal and dry years (not necessarily every year), the hydrology of the site has been confirmed. If possible, select an equal number of wet and dry years.

d. A month meets the definition of normal precipitation or runoff, if the total for that month is within one standard deviation (plus or minus) of the 30 year average for that month. A wet month is greater than the average plus one standard deviation. A dry month is less than the average minus one standard deviation.

e. Field observations may be necessary if photo signatures and office information are inconclusive or contradictory. Field observations will be completed in accordance with the NFSAM or CEWDM (as appropriate).

10. When reviewing aerial photography (including ASCS slides), the following criteria may be indicators of a wetland:

a. Soil tonal differences.

b. Drowned out crop (mud flat).

c. Stressed crop due to wetness.

d. Color of crop in dry or wet years.

e. Differences in color of vegetation.

f. Ponded water.

g. A shrub covered or forested area with undrained, hydric soil.

B. REVIEW EXISTING DATA. Complete the following procedures and record the results on the Wetland Identification Record (See Appendix A3) to document the wetland identification.

1. Identify the site on the official copy of the field office soil survey and determine if the soil map indicates a hydric soil, inclusions, or wet spot symbols. Review Section II of the FOTG to find the "County Hydric Soils List".

2. Identify the site on the NWI map and determine if the map indicates a wetland. If an area appears to be a wetland on the NWI and/or slides, but soil survey shows it as not hydric or no potential hydric inclusions, a ld investigation will be required. The site will be recorded as a wetland until a field investigation proves otherwise.

3. Identify the site on a USGS 7.5′ quadrangle and record any water or wetland features that occur on the site.

4. Identify the site on available aerial photographs including ASCS slides and other available aerial photography. Review five or more years of record or according to the requirements in Appendix C. Record the years wet signatures appeared on Appendix A3.

5. Also check the above aerial photography for recent hydrologic manipulation of the wetlands. Document observed manipulations in the column for the appropriate year.

6. Obtain any other available information on the wetland character of the site and record the results and the source of the information in the "Other Criteria" column.

C. MAKE A WETLAND IDENTIFICATION DECISION

1. If the available data supports mapping of a wetland, the appropriate FSA wetlands determination (Appendix D) will be documented on the official SCS map (photo) and SCS-CPA-026 (Appendix A1). Pertinent supporting data will added to the case file. Mark the wetland boundary on the aerial otograph ensuring that the entire wetland is included within the boundary. Also, <u>for agricultural lands only</u>, label the site with the appropriate FSA wetland determination symbol if sufficient documented data

sts to justify an off-site determination. This off-site option applies y to the following determinations: W, PC, CW, FW, FWP, WX, AW, and W/AW. The W/AW determinations are subject to the requirements in item 2 below. All other determinations must be done on-site. These determinations include MW, CWNA, MIW, CWTE, RSW, RVW, and RPW.

2. Mapping wetlands adjacent to or within irrigated areas will require special effort because not all those wetlands were caused by irrigation. Thus, they cannot be automatically assumed to be AWs. It is true that many natural wetlands in this arid part of the United States have been expanded or enhanced by irrigation waters and water conveyance or storage facilities. Furthermore, after several years of irrigation, hydric soils, hydrophytic vegetation, and other natural wetland characteristics often become established in created wetlands. These wetlands have extremely high values for wildlife and are also valuable for other wetland functions, particularly filtration. Therefore, extra wetland determination effort is warranted if W and AW possibly overlap in the same location.

If use of historical photography, soil maps, and other data will enable a general discrimination between the two designation types, draw separate polygons and label them accordingly. If they cannot be separated, use the dual W/WA determination, and for purposes of the NFSAM, treat the entire wetland as a W. Further, if it is unclear if the area is predominantly an AW or a W, treat it as a W, do not treat it as an AW unless documented in an interagency field visit. Also, areas within natural drainages which are igated should be labeled W/AW when using off-site techniques unless clusive evidence indicates otherwise. Examples of W/AW may be permanent or intermittent streams; basins or depressions; or other topographic features located within irrigated areas which concentrate water. In these cases, notify the person in writing that an on-site delineation will be needed if any manipulations are planned in the designated W/AW area.

3. If the available data is inconclusive, or the wetland determination has been appealed, the SCS will complete a field wetland determination or delineation using the NFSAM or the CEWDM as appropriate.

4. Each photograph used to identify wetland boundaries (if done using off-site procedures/conventions) will display a note to the effect that "The wetland boundaries depicted on this photograph were identified from aerial photography and were not field checked. Therefore, the boundary does not represent an on-site determination or delineation. Wetlands identified by this methodology will be accepted as existing by the COE, FWS, and EPA for the purposes of FSA/FACTA and Section 404 of the CWA. Cases involving manipulation of the wetlands depicted will require an on-site delineation."

5. The District Conservationist will consult with FWS as outlined in NFSAM part 513.21, by sending copies of the AD-1026, the CPA-026, Wetland Identification Record, aerial photographs, USGS quad coordinates and preliminary findings. Allow FWS 30 days to review, request an on-site visit, or respond in writing with their comments, thereby affording FWS ll participation in the determination process. If a written response is received from the FWS within 30 days the SCS will notify FWS in writing the final determination made.

The COE and/or EPA will accept the SCS determination on agricultural lands. For non-agricultural land or other waters, the SCS will coordinate with the COE or EPA (when required by Section IV-K of the MOA) and provide an opportunity for review, comment, and approval of the findings of SCS prior to making a final wetland delineation. Send copies of the appropriate data sheets and the aerial photograph to the appropriate COE District or EPA for review. Appendix E shows COE Districts and addresses. EPA's address is: Wetlands Protection Section Chief, US EPA Region VIII, 999 18th Street, 500 Denver Place, Denver, CO 80202. Allow the COE/EPA 45 days to review and respond with their approval. If comments from the COE/EPA are not received within 45 days the SCS will notify COE or EPA in writing of the final determination made.

7. Wetlands that may be exempt under the provisions of FSA/FACTA may not be exempt under CWA Section 404. The following table provides guidance for determinations where CWA Section 404 restrictions may apply. In addition this table provides guidance on action to be taken when wetlands exempt under FSA/FACTA are delineated. This information is found in Part 513.22(d) NFSAM.

If the SCS determination made or proposed to be made is:

wetland (W)
wetland that has been manipulated (WX)
artificial wetland (AW)
converted wetland non-agricultural use (CWNA)
mitigation (MIW)
farmed wetland (FW)
farmed wetland pasture (FWP)
minimal effect (MW)
restoration (RSW, RVW)
replacement (RPW)
converted wetland technical error (CWTE)
combination of wetland and artificial wetland (W/AW)

Then:

Notify the person in writing or document verbal notification that a Clean Water Act Section 404 permit may be required for any proposed action that could involve the discharge of dredged or fill material excavation and could not be exempted from the Section 404 permit requirement. Provide the person a copy of COE/EPA information brochure explaining Section 404 permit requirements, general permits, and exemptions which allow the continuation of normal farming, ranching and silvicultural practices.

IV. LIST OF APPENDIXES

A. FORMS
   1. SCS-CPA-026 "Highly Erodible Land and Wetland Conservation Determination"
   2. AD-1026 "Highly Erodible Land Conservation (HELC) and Wetland Conservation (WC) Certification"
   3. Wetland Identification Record
B. HYDRIC SOIL CRITERIA
C. GUIDELINES FOR MAKING DETERMINATIONS
D. FSA WETLANDS MAP SYMBOLS
E. COE DISTRICT BOUNDARIES AND MAILING ADDRESSES
F. WETLAND INFORMATION RESOURCES
G. DEFINITIONS/ACRONYMS

V. CHANGES IN PROCEDURES

Any changes in procedures, as concurred upon in this document, will require agreement by all four signatory federal agencies at the state level. The SCS will consult and coordinate with all four signatory agencies to make any changes in procedures as they are proposed. Such changes in procedures will take effect upon concurrence of the modified document by all signatory agencies at the state level. After each EPA oversight team periodic review, these mapping conventions will be re-evaluated and modified as necessary.

changes in mapping conventions will be made in accordance with procedures as outlined in the Memorandum of Agreement Section V-A, concerning the wetland delineation for purposes of Section 404 of the Clean Water Act and subtitle B of the Food Security Act.

These state mapping conventions, as concurred upon, will take effect on the date of the last signature below and will continue in effect until modified or terminated by agreement of all signatory agencies or terminated by any of the signatory agencies alone upon 30 days written notice.

APPENDIX A - FORMS

A1 Form SCS-CPA-026: Soil Conservation Service Form - "Highly Erodible Land and Wetland Conservation Determination"

A2 Form AD-1026: Department of Agriculture Form - "Highly Erodible Land Conservation (HELC) and Wetland Conservation (WC) Certification"

A3 Form CO-ECS-14: Soil Conservation Service (Draft Colorado Form) - "Wetland Identification Record"

U.S.D.A.
Soil Conservation Service

SCS-CPA-026
(June 91)

HIGHLY ERODIBLE LAND AND WETLAND CONSERVATION DETERMINATION

1. Name and Address of Person

2. Date of Request

3. County

4. f USDA Agency or Person Requesting Determination

5. Farm No. and Tract No.

SECTION I - HIGHLY ERODIBLE LAND

	FIELD NO.(s)	TOTAL ACRES
6. Is soil survey now available for making a highly erodible land determination? Yes ☐ No ☐		
7. Are there highly erodible soil map units on this farm? Yes ☐ No ☐		
8. List highly erodible fields that, according to ASCS records, were used to produce an agricultural commodity in any crop year during 1981-1985.		
9. List highly erodible fields that have been or will be converted for the production of agricultural commodities and, according to ASCS records, were not used for this purpose in any crop year during 1981-1985; and were not enrolled in a USDA set-aside or diversion program.		
10. This Highly Erodible Land determination was completed in the: Office ☐ Field ☐		

SECTION II - WETLAND

	FIELD NO.(s)	TOTAL ACRES
11. Are there hydric soils on this farm? Yes ☐ No ☐		
12. Wetlands (W), including abandoned wetlands, or Farmed Wetlands (FW) or Farmed Wetlands Pasture (FWP). Wetlands may be farmed under natural conditions. Farmed Wetlands and Farmed Wetlands Pasture may be farmed and maintained in the same manner as they were prior to December 23, 1985, as long as they are not abandoned.		
13. Prior Converted Cropland (PC). Wetlands that were converted prior to December 23, 1985. The use, management, drainage, and alteration of prior converted cropland (PC) are not subject to the wetland conservation provisions unless the area reverts to wetland as a result of abandonment.		
14. Artificial Wetlands (AW). Artificial wetlands includes irrigation-induced wetlands. These wetlands are not subject to the wetland conservation provisions.		
15. Minimal Effect Wetlands (MW). These wetlands are to be farmed according to the minimal-effect agreement signed me the minimal-effect determination was made.		
16. on Wetlands (MIW). Wetlands on which a person is actively mitigating a frequently cropped area or a wetland converted between December 23, 1985 and November 28, 1990.		
17. Restoration with Violation (RVW-year). A restored wetland that was in violation as a result of conversion after November 28, 1990, or the planting of an agricultural commodity or forage crop.		
18. Restoration without Violation (RSW). A restored wetland converted between December 23, 1985 and November 28, 1990, on which an agricultural commodity has not been planted.		
19. Replacement Wetlands (RPW). Wetlands which are converted for purposes other than to increase production, where the wetland values are being replaced at a second site.		
20. Good Faith Wetlands (GFW+year). Wetlands on which ASCS has determined a violation to be in good faith and the wetland has been restored.		
21. Converted Wetlands (CW). Wetlands converted after December 23, 1985 and prior to November 28, 1990. In any year that an agricultural commodity is planted on these Converted Wetlands, you will be ineligible for USDA benefits.		
22. Converted Wetland (CW+year). Wetlands converted after November 28, 1990. You will be ineligible for USDA program benefits until this wetland is restored.		
23. Converted Wetland Non-Agricultural use (CWNA). Wetlands that are converted for trees, fish production, shrubs, cranberries, vineyards or building and road construction.		
24. Converted Wetland Technical Error (CWTE). Wetlands that were converted as a result of incorrect determination by SCS.		

25. The planned alteration measures on wetlands in fields _____ are considered maintenance and are in compliance with FSA.

26. The planned alteration measures on wetlands in fields _____ are not considered to be maintenance and if installed will cause the area to become a Converted Wetland (CW). See item 22 for information on CW+year.

27. The wetland determination was completed in the office ☐ field ☐ and was delivered ☐ mailed ☐ to the person on _____.

28. Remarks.

29. *I certify that the above determination is correct and adequate for use in determining eligibility for USDA program benefits, and that wetland hydrology, hydric soils, and hydrophytic vegetation under normal circumstances exist on all areas outlined as Wetlands, Farmed Wetlands, and Farmed Wetlands Pasture.*

30. Signature of SCS District Conservationist

31. Date

Assistance and programs of the Soil Conservation Service available without regard to race, religion, color, sex, age, or handicap.

SCS Copy

AD-1026 (02-17-94) UNITED STATES DEPARTMENT OF AGRICULTURE Form Approved - OMB No. 0560-0004

HIGHLY ERODIBLE LAND CONSERVATION (HELC) AND WETLAND CONSERVATION (WC) CERTIFICATION

1. Name of Producer	2. Identification Number	3. Crop Year

	YES	NO
4. Do the attached AD-1026A(s) list all your farming interests by county, and show current SCS determinations? *If "No", contact your County ASCS Office before completing this form.*		
5. Are you now applying for, or do you have a FmHA insured or guaranteed loan?		
6. Do you have a crop insurance contract issued or reinsured by the Federal Crop Insurance Corporation?		
7. Are you a landlord on any farm listed on AD-1026A that will not be in compliance with HELC and WC provisions?		
8. Has a HELC exemption been approved on any farms listed on AD-1026A because the landlord refuses to comply?		
9. List here or attach a list of affiliated persons with farming interests. *See reverse for an explanation. Enter "None", if applicable.*		

If items 7 or 8 are answered **"YES"**, circle the applicable farm number on AD-1026A.

During either the crop year entered in item 3 above, or the term of a requested USDA loan:

	YES	NO
10. Will you plant or produce an agricultural commodity on land for which a highly erodible land determination has not been made?		
11. Will you plant or produce an agricultural commodity on any land that is or was a wet area on which planting was made possible by draining, dredging, filling, or leveling or any other means after December 23, 1985?		
12. Will you, or have you since November 28, 1990, made possible the planting of any crop, pasture, agricultural commodity, or other such crop by: **(a)** converting any wet areas by draining, dredging, filling, leveling, or any other means, or, **(b)** improving, modifying, or maintaining, an existing drainage system?		
13. Will you convert any wet areas for fish production, trees, vineyards, shrubs, building construction, or other non-agricultural use?		

If answers to items 10, 11, 12, or 13 are: **"YES"** for any one of these items, sign and date in item 14 below. Circle the applicable tract number on AD-1026A, or list tract number in item 12 on AD-1026A. ASCS will refer this AD-1026 to SCS for a determination. DO NOT sign in item 16 until SCS determination is complete.

"NO" for all of these items or SCS determinations are complete, complete item 16.

14. Signature of Producer ➤ *I hereby certify that the above information, and the information on attached AD-1026A's, is true and correct to the best of my knowledge and belief.* Date

15. Referral To SCS *(Completed by ASCS)* Enter a √ if a SCS determination is needed because "Yes" is answered in item 10, 11, 12, or 13. ☐ Date Referred | Signature of ASCS Representative

NOTE: Before signing in item 16, Read AD-1026 Appendix.

I hereby certify that the above information, and the information on attached AD-1026A's, is true and correct to the best of my knowledge and belief. It is my responsibility to file a new AD-1026 in the event there are any changes in my farming operation(s). In signing this form, I also certify that I have received and will comply with the compliance requirements on AD-1026 Appendix, and any addendum thereto.

16. Signature of Producer ➤ Date

17. Remarks:

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

CO-ECS-14
8/94

WETLAND IDENTIFICATION RECORD

Legal Description

Township _____ Range _____ Section _____

Client Name: _____ Date: _____

Field Office: _____ Tract: _____

Field Number					
Quarter Section					
Wetland Number					
Hydric Soils[1/]					
NWI Map[1/]					
USGS Quads[1/]					
B&W Photos[1/]					
Infrared Photos[1/]					
5 Years ASCS Slides[1/]					
Climatological Data[1/]					
Manipulation					
On-site Visit					
Hydrophytic Vegetation					
Hydrology					
Other					
ASCS Color Slides					
Year					
Fall: Wet or Dry					
Summer: Wet or Dry					
Year					
Fall: Wet or Dry					
Summer: Wet or Dry					
Year					
Fall: Wet or Dry					
Summer: Wet or Dry					
Year					
Fall: Wet or Dry					
Summer: Wet or Dry					
Year					
Fall: Wet or Dry					
Summer: Wet or Dry					
Preliminary Determination					

1/ Mapping convention: + supports wetland criteria - does not support wetland criteria.

Date Sent to FWS: _____ Date Returned by FWS: _____
(Note: Record must be returned to Field Office within 30 days)

FWS Concurrence: _____ Date: _____

District Conservationist: _____ Date: _____

APPENDIX B

Hydric Soil Criteria

DEFINITION OF HYDRIC SOIL

A hydric soil is a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part. The following criteria reflect those soils that meet this definition.

CRITERIA FOR HYDRIC SOILS

1. All Histosols except Folists, or

2. Soils in Aquic suborder, Aquic subgroups, Albolls suborder, Salorthids great group, Pell great groups of Vertisols, Pachic subgroups, or Cumulic subgroups that are:

    a. Somewhat poorly drained and have a frequently occurring water table at less that 0.5 foot (ft) from the surface for a significant period (usually more that 2 weeks during the growing season, or

    b. poorly drained or very poorly drained and have either:

        (1) a frequently occurring water table at less than 0.5 ft from the surface for a significant period (usually more than 2 weeks) during the growing season if textures are coarse sand, sand, or fine sand in all layers within 20 inches (in), or for other soils

        (2) a frequently occurring water table at less than 1.0 ft from the surface for a significant period (usually more than 2 weeks) during the growing season if permeability is equal to or greater than 6.0 in/hour (h) in all layers within 20 in, or

        (3) a frequently occurring water table at less than 1.5 ft from the surface fpr a significant period (usually more than 2 weeks) during the growing season if permeabillity is less than 6.0 in/h in any layer within 20 in, or

3. Soils that are frequently ponded for long duration or very long duration during the growing season, or

4. Soils that are frequently flooded for long duration or very long duration during the growing season.

APPENDIX C

GUIDELINES FOR WETLAND DETERMINATIONS OR INVENTORIES

Instructions for use with ASCS slides and overlay

When viewing slides, place a clear overlay on the Kodak Caramate screen. Circle the wetland with an erasable marker for the first year reviewed (view wettest year first). Go to the next year slide, circle new wetlands, and place a checkmark by wetlands that have reoccured. Repeat the process for all years of slides. After using the conventions for a period of time, experience may allow the overlay to be dropped from the process. Check for manipulations and document them.

For 5 or more years of slides:

One circle, no checks, and wetland is verified by NWI map, possible wetland, review weather data to make a determination. The NWI must be reviewed. If the area has one circle and no checks and cannot be verified by NWI, the area is not a wetland.

One circle and one check and verified by NWI, the area is a wetland. If the area is not verified by NWI, area is a probable wetland, review other records to help make the determination.

One circle and two or more checks, area is a wetland whether or not verified by NWI.

For 4 or less years of slides:

One circle, no checks, and verified by NWI, area is a wetland.

One circle, no checks, and not on NWI, area is a probable wetland, check weather records.

One circle and one or more checks, area is a wetland whether or not verified by NWI.

No circle or checks and on NWI, is a probable wetland, check weather records and prior manipulations to help make a decision.

If the above guidance is inconclusive, a field visit is required.

APPENDIX D FSA WETLAND MAP SYMBOLS

Wetland (W)

Areas that meet wetland criteria under natural conditions and have typically not been manipulated by altering hydrology and/or removing woody vegetation. Wetland includes areas that are farmed under natural conditions and areas that have been abandoned.

Wetlands are defined as lands that:

- have a predominance of hydric soil; and
- are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions;
- and under normal circumstances do support a prevalence of hydrophytic vegetation.

Normal circumstances refers to the soil and hydrologic conditions that are normally present, without regard to whether the vegetation has been removed.

Artificial and Irrigation Induced Wetlands (AW)

Land that was formerly non-wetland in its natural state or was prior converted cropland that now exhibits wetland characteristics because of human activities.

- Enhanced flooding of areas meeting wetland criteria does not make the area AW.

Combined Wetlands and Artificial Wetlands (W/AW)

Natural wetland areas that have expanded in size or are enhanced by additional water as the result of human activities. Examples include the following:

- areas that are enhanced by irrigation water conveyance, storage, or seepage
- naturally wet areas that are deepened to create ponds

Converted Wetland (CW)

Converted wetland is land that meets all the following criteria:

- was wetland
- was neither highly erodible land nor highly erodible cropland
- after December 23, 1985, has been drained, dredged, filled, leveled, or otherwise manipulated, including any activity that results in impairing or reducing the flow, circulation, or

reach of water, and

- the production or increased production of an agricultural commodity (also includes forage after November 28, 1990) was made possible such as: making an area farmable in more years than it previously was or increasing yield because of reduced crop stress due to wetness.

NOTE: It may be possible to determine what year (after November 28, 1990) the conversion occurred. If so, mark it CW + yr.

Prior Converted Cropland (PC)

Prior converted croplands are wetlands that were drained, dredged, filled, leveled, or otherwise manipulated, including the removal of woody vegetation, before December 23, 1985, for the purpose of, or to have the effect of, making the production of an agricultural commodity possible, and an agricultural commodity was planted or produced at least once prior to December 23, 1985.

NOTE: Does not include wooded areas where hydrology was removed, but trees were not removed.

Converted wetland shall be labeled as PC if <u>all</u> of the following conditions apply:

manipulation of the wetland:

- occurred before December 23, 1985

- was for the purpose, or had the effect of making the production of an agricultural commodity possible

an agricultural commodity was produced before December 23, 1985

area has not been abandoned

area does not meet farmed wetland criteria

Farmed Wetland (FW)

Farmed wetlands are wetlands that were drained, dredged, filled, leveled, or otherwise manipulated before December 23, 1985, for the purpose of, or to have the effect of, making the production of an agricultural commodity possible, and continue to meet specific hydrologic criteria. This applies if:

- such production was not possible before the manipulation; and

- an agricultural commodity was produced at least once prior to December 23, 1985; and

- the area has not been abandoned from agricultural commodity production.

Playas, potholes, or pocosins that are inundated for at least 7 days or saturated for at least 14 days during the growing season meet FW criteria if they have a prior manipulation as mentioned above.

Other areas (not a playa, pothole, or pocosin) that are seasonally ponded or flooded for at least 15 days during the growing season or 10% of the growing season, whichever is less under normal conditions are FW if they meet the above mentioned manipulation criteria.

Farmed Wetland Pasture (FWP)

Farmed wetland pasture or hayland (FWP) are wetlands that:

- were manipulated and used for pasture or hayland prior to December 23, 1985, still meet wetland criteria, and are not abandoned, or

- were FW that have not been cropped for 5 successive years, but were used for forage production during that time, and have not been abandoned, or

- were PC that meet wetland criteria, have not been cropped for 5 successive years, but were used for forage production during that time and have not been abandoned.

An area meets hydrology criteria for FWP if it is inundated for 7 consecutive days during the growing season or saturated for 14 consecutive days during the growing season.

Converted Wetland Non-agricultural Use (CWNA)

Converted Wetland Non-agricultural Use are wetlands that are converted for trees, shrubs, cranberries, vineyards, fish production, roads, buildings, and other non-agricultural uses that have been approved prior to conversion.

Converted Wetland Technical Error (CWTE)

Converted Wetland Technical Error are wetlands that were converted by the person as result of incorrect information provided to the person by the SCS.

Wetlands That Have Been Manipulated (WX)

WX areas are wetlands that have been manipulated after December 23, 1985, but the manipulation did not make production of agricultural commodities possible.

These areas, by definition, are not cropable. If a commodity or forage was or is produced, make a new determination on the area.

Examples of WX would include:

An open ditch constructed through a forested wetland that removed the hydrology, but the trees were not removed and the area is not capable of agricultural commodity production.

Trees cut with stumps left in place, no manipulation of hydrology and the area is not capable of agricultural commodity or forage crop production.

Piles of trees, stumps, and soil covered areas which is not cropable without added land clearing activities.

Minimal Effect (MW)

Minimal Effect is an exemption that can be granted by SCS in agreement with FWS for converted wetland or proposed conversions that will have minimal effects on the hydrological and biological functions of a wetland.

Replacement of Wetland Values (RPW)

A not-frequently cropped wetland area converted to improve efficiency. A PC must be restored to replace it.

Restoration of Converted Wetland without Violation (RSW)

A wetland area converted between 12/23/85 and 11/28/90, on which a violation occurred that has been restored to pre-conversion conditions.

Restoration of Converted Wetland with Violation (RVW)

Wetland Converted after November 28, 1990, or between December 23, 1985 and November 23, 1990, on which an agricultural commodity was planted, that has been fully restored.

Mitigation Wetland (MIW)

Mitigation wetlands are frequently cropped wetlands or wetlands converted between December 23, 1985, and November 28, 1990, for which the person has signed and agreement with SCS and FWS to mitigate the values lost or to be lost by the conversion.

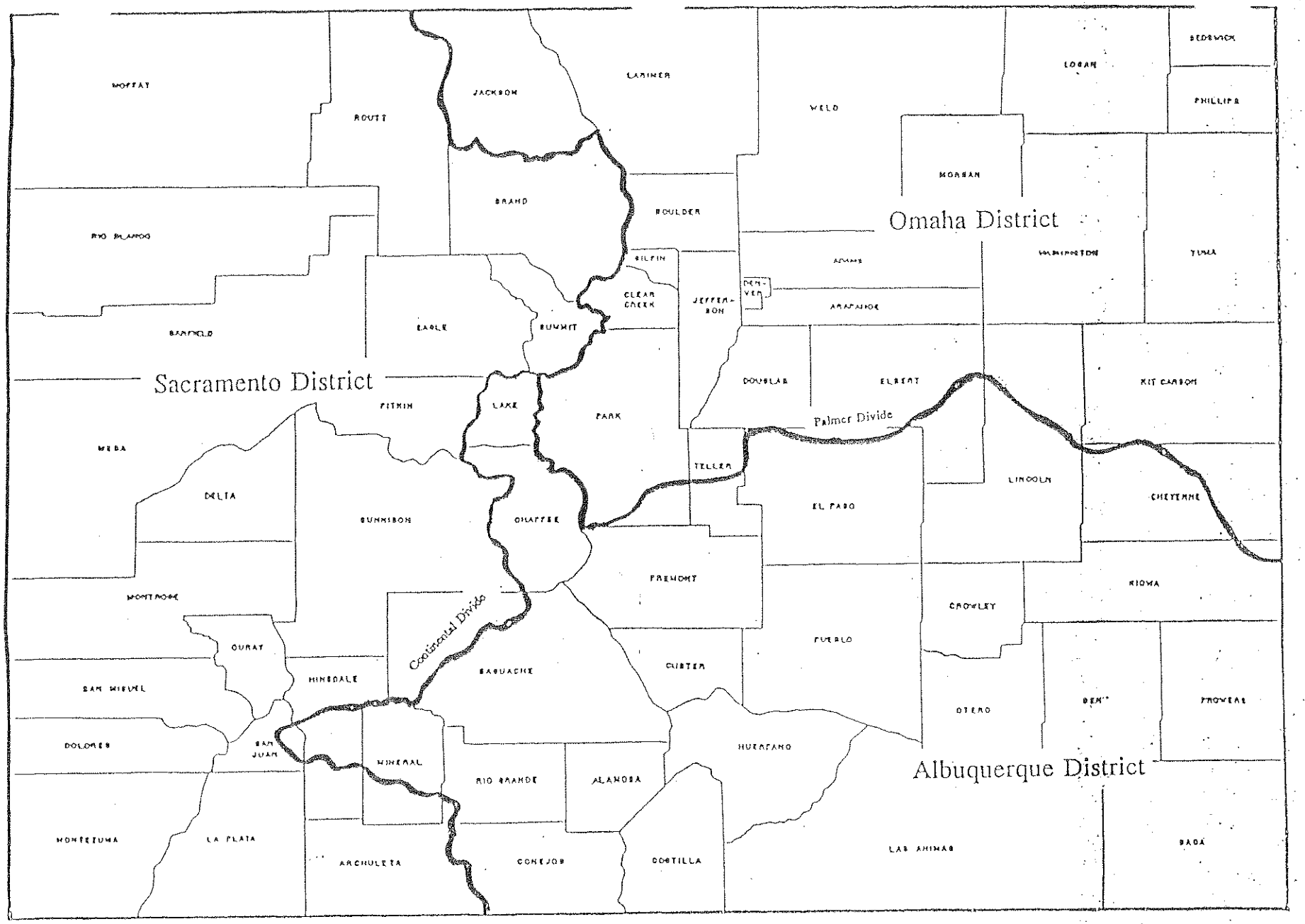
APPENDIX E

Corps of Engineers Districts and Addresses

ALBUQUERQUE DISTRICT
Southern Colorado Regulatory Office
421 North Main Street
P.O. Box 294
Pueblo, CO 81002-0294
(719) 543-9459

OMAHA DISTRICT
Tri-Lakes Project Office
9307 Colorado State Highway 121
Littleton, CO 80123-6901
(303) 979-4120

SACRAMENTO DISTRICT
Western Colorado Regulatory Office
402 Rood Avenue, Room 142
Grand Junction, CO 81501-2563
(303) 243-1199



CORPS OF ENGINEERS
DISTRICT BOUNDARIES
COLORADO

APPENDIX F
INFORMATION RESOURCES

Information Needed	Possible Sources
Hydric Soil	1) County list 2) Soil survey - map unit descriptions, wet symbols, streams, springs, etc. 3) USGS quads 4) Climatological data 5) Landowner interview 6) Site investigation 7) Take a soil scientist onsite 8) Flooding maps or inventories
Prevalence of hydrophytes	1) NWI 2) ASCS color slides 3) SCS black and white or color photos 4) Soil survey vegetative info. map unit description tables 5) site investigation including similar non-cropped areas
Altered or Manipulated?	1) NWI 2) ASCS color slides- pre & post '85 if possible 3) SCS photos 4) USGS Quads 5) Case file 6) Site investigation 7) Landowner interview 8) Employee knowledge
Planted prior 12/23/85	1) ASCS records and slides prior to 12/23/85 2) Case file 3) Photo interpretation 4) Employee knowledge 5) Landowner interview

Planted after 11/28/90	1) ASCS records and slides before and after 11/28/90 2) Case file 3) Photo interpretation 4) Employee knowledge 5) Landowner interview
Abandoned?	1) ASCS records and slides for the past 5 years 2) SCS photos 3) Case file 4) Owner interview 5) On-site inspection 6) USGS quads
Pothole or Playa?	1) NWI maps 2) Soil survey maps and map unit description 3) USGS quads 4) ASCS slides 5) SCS photos 6) Site investigation 7) Employee knowledge
Flooding or Ponding Duration	1) Soils 5 2) NWI 3) Field inspection 4) Landowner interview 5) Case file 6) Flood hazard study 7) Watershed investigations 8) Climatological data 9) Flooded crops, stressed crops long term use as forage rather than cropland, always plant spring crops?

APPENDIX G

DEFINITIONS/ACRONYMS

Agricultural Lands - Those lands intensively used and managed for the production of food or fiber to the extent that the natural vegetation has been removed and cannot be used to determine whether the area meets applicable hydrophytic vegetation criteria in making a wetland delineation.

ASCS - Agricultural Stabilization and Conservation Service

CEWDM - Corps of Engineers Wetland Delineation Manual (1987) or approved revision

CDAF - Climatic Data Access Facility

COE - United States Army Corps Of Engineers

Coordination - The SCS will contact the COE, or EPA as appropriate, and provide an opportunity for review, comment, and approval of the findings of the SCS prior to issuing a final delineation. The COE or EPA as appropriate, will review the proposed delineation and respond to SCS regarding its acceptability for CWA Section 404 purposes within 45 days of receipt of all necessary information. SCS will not issue a final delineation until agreement is reached between SCS and the COE or EPA, as appropriate (Paragraph VI-A of USDA/EPA/DOI/Army MOA).

Consultation - The SCS will provide FWS opportunity for full participation in the action being taken and for timely review and comment on the findings of SCS prior to a final wetland determination and/or delineation pursuant to the requirements of FSA/FACTA (Paragraph VI-B of USDA/EPA/DOI/Army MOA).

CWA - Clean Water Act

EPA - United States Environmental Protection Agency

FACTA - Food, Agriculture, Conservation and Trade Act of 1990

FEMA - Federal Emergency Management Agency

FHA - Federal Housing Administration

FSA - Food Security Act

FOTG - Field Office Technical Guide (SCS)

FWS - United States Fish and Wildlife Service

Growing Season - That part of the year when soil temperatures at 19.7 inches below the soil surface are higher than biologic zero (5°C). As this quantitative determination requires in-ground instrumentation, growing season may be estimated by approximating the number of frost

free days. Using air temperature data from county soil surveys, the growing season can be approximated as the period of time between the average last date of 28°F air temperature in spring to the average first date of 28°F air temperature in autumn.

Hydric Soil - A hydric soil is a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part (Hydric Soils of the United States, 1991).

Hydrophytic vegetation - Sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (CEWDM paragraph 29).

Long Duration - Seven days to one month consecutively (from Soil Taxonomy AH - 436).

MOA - Memorandum of Agreement among the Department of Agriculture, the Environmental Protection Agency, the Department of the Interior, and the Department of the Army Concerning the delineation of wetlands for purposes of Section 404 of the Clean Water Act and Subtitle B of the Food Security Act, dated January 6, 1994.

NFSAM - SCS National Food Security Act Manual, 3rd edition.

NWI - National Wetlands Inventory (FWS)

SCS - Soil Conservation Service

Standard Deviation -

USGS - United States Geological Survey

Very Long Duration - Thirty consecutive days or longer (from Soil Taxonomy, AH - 436)

Wetland determination - The off-site determination of a wetland using approved wetland mapping conventions and procedures outlined in the NFSAM and the CEWDM.

Wetland delineation - The on-site delineation of a wetland using approved wetland mapping conventions and procedures outlined in the NFSAM and the CEWDM.

Wetland Hydrology - All hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season. Areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic and reducing conditions, respectively (CEWDM paragraph 46).