

**WETLAND MAPPING CONVENTIONS FOR AGRICULTURAL LANDS^{1/}
FOR 1985 FOOD SECURITY ACT (FSA) AS AMENDED
AND SECTION 404 CLEAN WATER ACT (CWA)^{2/}**

IOWA 1994

PREFACE

These conventions outline the procedures and methods the Natural Resources Conservation Service (NRCS), US Fish and Wildlife Service (FWS), US Army Corps of Engineers (COE), and Environmental Protection Agency (EPA) will use to conduct FSA and CWA off-site wetland determinations on agriculture land. These mapping conventions will provide a consistent method to wetland delineators in making off site wetland determinations as per the National Food Security Manual (NFSAM). The Iowa conventions were developed by an interagency team comprised of EPA, FWS, COE, NRCS, and the Iowa Department of Natural Resources (IDNR). The conventions were developed based on field tested correlations between off site information and wetlands as observed in the field.

The mapping conventions rely on the interpretation of aerial photography and weather data in conjunction with other inventories like the County Soil Surveys and the National Wetland Inventory (NWI). This process requires training in properly identifying wetland signatures from different types of aerial photography under varying soil moisture conditions. The Inventory Team members will complete the course "Remote Sensing For Aerial Photo Interpretation" or have similar training/course work prior to conducting any mapping activity. A module for this course will be developed to address identifying wetland signatures. Off site determinations will only be made by personnel trained in both FSA wetland criteria and in identifying wetland signatures by using remote sensing. People having had the Iowa NRCS sponsored REG IV training have had aerial wetland photo ID training in that course and are certified to make off site calls using these procedures.

Wetland terms used in these conventions are defined in the most recent edition of the National Food Security Act Manual (NFSAM). At the time these conventions were developed, the third edition, second amendment, was the revision in use.

1/ Agricultural Land is land intensively used and managed for the production of food or fiber to the extent that natural vegetation has been removed and cannot be used to determine whether the area meets the hydrophytic vegetation criteria. These may include cropland, hayland, pasture, orchards, and vineyards. In Iowa, bluegrass pastures are nearly always considered agricultural land.

Agricultural land does not include range land, forest land, or wood lots on the farms nor lands where natural vegetation has not been removed, even though the natural vegetation may be regularly grazed or mowed and used for forage or fodder.

2/ US-COE 87 manual criteria to be used for all non ag-land., including those non ag-lands which are either narrow bands immediately adjacent to, or small pockets interspersed among, agricultural land. Size of these will be determined as the inventory progresses in each county.

NRCS - NFSAM to be used for all ag-land.

**WETLAND MAPPING CONVENTIONS FOR AGRICULTURE LANDS,
NON-TIMBERED NON-AGRICULTURAL LAND, AND TIMBERED
WETLANDS WITHIN FLOODPLAINS**

INTRODUCTION

I. Agricultural land wetlands must meet the following criteria:

1. Contain a hydric soil, and
2. Support or be capable of supporting a predominance of hydrophytic vegetation, and
3. Meet hydrology criteria, which is:
 - A. Inundation (flooding or ponding) occurs for 7 consecutive days or longer during the growing season in most years (50% chance or more); or
 - B. Saturation at or near the surface occurs for 14 consecutive days or longer during the growing season in most years (50% chance or more). Soils may be considered to be saturated to the surface when the water table is within:
 - i. 0.5 ft of the surface for coarse sand, sand or fine sandy soils; or
 - ii. 1.0 ft of the surface for all other soils.
 - C. For a site to be designated to be FW it must meet the requirements in NFSAM 514.22a and meet the following hydrology criteria:
 - * If the area is a pothole (MLRA 103) it is inundated for at least 7 consecutive days or saturated for at least 14 consecutive days during the growing season; or
 - * If the area is not a pothole, it has a 50 percent chance of being seasonally ponded or flooded for at least 15 consecutive days during the growing season under normal conditions.
 - D. For an area to be designated a FWP, the area must meet the definition in NFSAM 514.23a and the following hydrology criteria:
 - * The area is inundated for at least 7 consecutive days during the growing season or saturated for at least 14 consecutive days during the growing season.

II. Non-Agricultural land wetlands must meet the following criteria:

1. Contain a hydric soil, and
2. Support or be capable of supporting a predominance of hydrophytic vegetation, and
3. Meet hydrology criteria, which is that the site is inundated and/or saturated for at least 5% of the growing season.

GENERAL INFORMATION - USED IN ALL CONVENTIONS

Size of area This is not a part of the wetland criteria. Any wetland area large enough to be detected and delineated on the base map when interpreting aerial photography will be mapped as wetlands using this procedure.

Mapping tools (for individual counties):

1. County Soil Survey
2. Approved County Hydric Soil List
3. Base Map - This will be a NAPP black and white aerial photo at 8 inch to the mile scale, 24 by 24 inch sheet (rectified if available).
4. National Wetland Inventory (NWI) - The NWI provides an overview of the extent and type of wetlands in the county. The NWI was done in the mid 1980's. The date of inventory completion can be determined by the date on the NWI map. The NWI does not delineate prior converted cropland, it did not use soils information and some cases did not inventory wetlands in cropland due to FWS policy.

In reviewing NWI maps, all wetlands on the NWI maps will be considered wetlands for these conventions unless review of the CFSA slides fails to confirm the area as meeting wetland criteria. Reason for not meeting criteria:

- a. Review of slides for the selected years does not show potholes as having enough years of wetland signatures to meet the mapping conventions.
- b. Review of slides for the selected years does not show depressions or floodplains as having wetland signatures enough years to meet mapping conventions.
- c. The wetland has been drained since the NWI maps were completed, but before December 23, 1985. Look for manipulation such as ditches, new tile lines, dikes or levees.

USFWS will be advised of sites on the NWI omitted through use of these conventions at the conclusion of each counties inventory.

5. USGS Topographic Maps
6. Climatic Data - 30 year county precipitation records will be used for county determinations. County growing season data will be used.
7. Maps showing elevations of 7 and 15 day flooding (50% frequency) along major rivers of the state developed by the NRCS - 7 day used only for determining wetlands for agricultural land not manipulated and cropped prior to December 23, 1985.
8. CFSA Compliance Slides - These color aerial 35mm slides are used by CFSA to record crop history. The availability of slides in Iowa ranges from 8 to 14 years (1981 through 1994). The inventory will use a minimum of five years of slides. The year of NWI completion will not be selected as one of the years of the CFSA slides.

Years selected will be based on years of CFSA slides available, and annual precipitation records as per guidelines in the "Remote Sensing Procedure 1" section of the Hydrology Tools Manual. ("Normal" precipitation will be defined as being values within 30% of the county 30 year average.)

For the years selected, monthly climatic conditions for the months in the growing season preceding the slides will be analyzed based on "Procedure 2" in the Remote Sensing section of the Hydrology Tools Manual. If this criteria is not met, a different year will be selected.

Based on the above two selection criteria and considering precipitation in the year NWI was completed, a minimum of five years of slides will be selected. One wet year will always be used to identify potential sites (Step 4a in MLRA 103 and Step 6a for remainder of state). If five years of normal precipitation are not available, or not suitable for use, such as unusual precipitation events immediately prior to slides, poor slide quality, etc, three years of normal precipitation, one wet, and one dry will be selected. If three years of normal precipitation are not available, one normal, two wet, and two dry will be selected. If one year of normal is not available, three wet and three dry will be selected. In selecting years, those pre-1986 and those closest to normal precipitation will receive priority.

As the inventory process proceeds, if a year or more of slides is found to be of poor quality and unusable, the Inventory Team will stop and request a substitute year(s) of slides that meet the above slide selection criteria.

The 1985 slides and the most recent normal year of slides available will be reviewed to assist in determining potential CW+ year sites.

Wetland signatures (these are indicators, tracks, and identifiable evidence left on the landscape, that represent photographically the vegetation, ponding, flooding, and/or saturation of the site) to be used in viewing slides are:

- hydrophytic vegetation (observed as different color than crop or forage)
- surface water (oxbows, depressions, etc.)
- flooded or drowned out crops, wet/bare soil within cropped fields
- stressed crops due to wetness (Crop stress is seen on the CFSA slides as areas of yellowish tinted crop, or sparse canopy coverage of crop, that has been in stress due to wetness.)
- difference in vegetation within a field due to different planting dates
- inclusion of wet areas as "set aside" (these generally show on slides as areas of close grown legumes/grasses surrounded by, or bordering, areas of row crops--the area may or may not have been enrolled in the USDA set aside program)
- patches of greener vegetation during years of below normal precipitation

9. Previous wetland inventories, determinations, appeals, and wetland delineations completed in the county - As inventories are in progress, field staff will assist the inventory team and provide previous on-site determinations such as CW, CW + year, CWTE, CWNA, etc., and all wetland appeal results for inclusion in this inventory.

Requests for Determinations

The AD-1026 is the request form to NRCS. It is completed by a person at the CFSA office, then CFSA refers the request to NRCS. It will serve as the request for Agricultural land, small pockets or narrow bands of non-Agricultural land within or adjacent to agricultural lands and timbered wetlands within the 7-day inundation line on floodplains. It will not serve as the request for other non-agricultural land unless specifically so indicated by the person requesting assistance.

GUIDELINES FOR WETLAND MAPPING CONVENTIONS

Basic Guidelines

As a minimum, for any site to be designated as any type of wetland through use of these off-site conventions, it would have to meet the following:

- * Contain hydric soil, as identified on the County Hydric Map Unit List. Within the determination process, sites may appear that meet mapping conventions but are shown as non-hydric soils. These will be identified and an on-site visit will be required to determine whether the site meets wetland criteria.
- * Be determined to be agricultural land, narrow bands of non-agricultural land adjacent to cropland, or small pockets of non-agricultural land within agricultural land; or timbered wetlands within the floodplain.
- * If manipulated due to removal of trees, and no photographic documentation exists, the manipulation involving tree removal will be indicated by a review of natural vegetation for the site. The information contained in the "Natural Condition" column on the county hydric soil list will be the basis for this determination of manipulation. If the "older" photographs show trees or the list shows "wooded" as the original vegetation, and the current slides show no trees, the site is considered to have been manipulated.

I. POTHOLE AREAS IN MLRA 103 (See maps in Field Office Technical Guide)

Additional Criteria required:

- * Identified as a "pothole" on the County Hydric Soil List.

Determination Process:

(Wetland Inventory Team completes the inventory process in Steps 1-6; District Conservationist completes determination using steps 7 + 8)

- STEP 1 Review County Soil Survey and County hydric soil list. Identify soil map units not containing hydric soils, inclusion of hydric soils, or depression/pothole spot symbols and label as "NW".
- STEP 2 Outline areas where no determination will be made. These include non-agricultural land such as farmsteads, timbered areas (use 25% or more canopy cover of woody species as a guide), native pastures, streams, drainage ditches, and other agricultural land where it is impossible to make a determination from viewing the slides. Label these ND. Areas too small to outline within cropland, including single trees and single tree wide fence rows that are not drainage ways, are considered part of the cropland field and are considered whatever the surrounding field is (e.g. PC, NW, FW).
- STEP 3 As per NFSAM 514.52, review previous determinations for compatibility with these conventions. Outline and label previous determinations with the appropriate symbol (W, CW, CWNA, CWTE, etc.), including determinations as a result of the appeals process.
- STEP 4 Review CFSA color slides for the selected five years looking for the following signatures:

- a. From the five years of slides, select a wet appearing year and identify all potential sites.
- b. Indicate on the inventory worksheet whether or not the site is on the NWI map.
- c. For the years of slides chosen, indicate on the inventory worksheet which wetland signatures are visible. Consider the site to meet wetland criteria if:
 - i. The site appears on NWI maps and signatures appear 40% or more of the years reviewed.
 - ii. The site does not appear on the NWI map, but signatures are present 60% or more of the years reviewed.

NOTE: As per USDA policy, land in CRP is considered to be in commodity production and determinations are to be based on conditions as they existed when the area was producing agricultural commodities. Therefore, Conservation Reserve Program (CRP) land will be inventoried using the same criteria as cropland (land used to produce agricultural commodities). The signatures used for cropland are transferable to CRP. However, the longer the land is in CRP, the less likely it is that slides represent the agriculture commodity production condition. Therefore, because the land is still considered to be in agricultural commodity production, slides from years in CRP (especially the latter years of the contract) may not be relevant and should not be used as the sole basis for a wetland determination.

STEP 5 For those identified sites which meet the inventory criteria, define wetland site boundaries on the base map. (For the extent of the area to be outlined, use hydric pothole and depression/pothole spot symbol soils as a guide, and modify boundaries based on area shown on slides during years of normal precipitation). Wetland signatures identified on non-hydric map units must be field verified. Measure and record acres of the site.

- STEP 6**
- a. Compare previous inventory for the site to identified sites and assure none have been omitted or added incorrectly.
 - b. For identified sites, compare 1985 slides to latest available photography (1993 or 1994) to determine if areas on the inventory have been manipulated after December 23, 1985. If sites have been manipulated, label them CW or CW+ year as appropriate. Make changes as indicated for 1993 flood damage as shown on page 13.

NOTE: If on appeal, a site is shown to be not capable of producing an Agricultural Commodity, it may be changed to WX.

STEP 7 Review sites identified on the inventory, label them as per NFSAM. The following are general definitions:

- a. CROPPED (produced agricultural commodity) BEFORE DECEMBER 23, 1985:

PC The sites identified in a field do not meet the mapping conventions and all soils in the field are hydric soil.

NW Mapping convention not met and sites in a field are non-hydric.

January 20, 1995

Page 7

NW/PC Mapping convention not met but field contains hydric and non-hydric soils.

FW The sites identified meet the 7/14 day criteria as evidenced by meeting the mapping convention and has not been abandoned.

NOTE: During the appeal process, changes of FW or FWP to PC may be made if it is found that the site appeared on the inventory due to the set-aside and/or crop stress signatures. The site may be changed if: abandonment has not occurred; the producer provides, or NRCS has, pre-1985 drainage information for the site; a review, by a person trained in aerial photo interpretation, of more available slides (must meet slide selection criteria in "Mapping Tools - Point 8" on pages 3 and 4) shows the area does not meet wetland criteria over the long term---8 to 10 years of slides (at least 60% of the years if not on NWI, 40% if on NWI), and:

- An evaluation of the capacity of the laterals, shows them not adequate to meet required drainage coefficient, site remains FW.
- The evaluation shows laterals are adequate, then evaluate the outlet. If this evaluation shows the outlet meets the required drainage coefficient, site may be PC with a maintenance need. If not adequate, site remains FW.

b. NOT CROPPED (no agricultural commodity produced) PRIOR TO DECEMBER 23, 1985, BUT USED FOR PASTURE/HAYLAND BEFORE THAT DATE:

PC The sites identified in a field do not meet the mapping conventions and all soils in the field are hydric soil.

NW Mapping convention not met and sites in a field are non-hydric.

NW/PC Mapping convention not met, but field contains hydric and non-hydric soils.

FWP Areas with hydric soil map unit identified as a pothole and meets the mapping conventions and has not been abandoned.

NOTE: FWP may be changed to FW on appeal if production of an Agricultural Commodity on the site before December 23, 1985, is proven and abandonment has not occurred.

c. AG-LAND MANIPULATED PRIOR TO DECEMBER 23, 1985, NOT CROPPED OR NOT USED FOR PASTURE/HAY:

NW If mapping convention not met.

WX If agricultural production not possible and meets mapping convention.

W If agricultural production possible and meets mapping convention.

NOTE: WX or W on the map may be changed to FW or FWP on appeal if records indicate production of Agricultural Commodities or pasture/hay on the site prior to December 23, 1985, and abandonment has not occurred.

- d. NON-MANIPULATED AREAS (Usually non ag-land and is not reviewed in these conventions)

W Meets the mapping conventions.

NOTE: W sites may be changed to FW or FWP as appropriate during appeals if manipulation of the site before December 23, 1985, is proven and abandonment has not occurred.

- e. Assure that all previous W, CW, CWNA, CWTE, etc. and appeal results appear on this map.

STEP 8 Complete CPA-026, aerial photo and notify producer and CFSA as per NFSAM.

II. REMAINDER OF STATE

Determination Process:

(Wetland Inventory Team completes inventory process in Steps 1-8; District Conservationist the determination process in steps 9 + 10)

STEP 1 For frequently cropped sites, review 15 day flooding line from NRCS maps. Outline cropped agricultural lands unprotected by levees which fall within the 15 day flooding line. These are FW.

NOTE: Changes to the "FW" may be made on appeal when on-site documentation shows an area to be above the 15 flooding day line and the area does not meet criteria in Step 6 on Page 9.

STEP 2 For remaining Ag land not frequently cropped and timbered non-agricultural land, review the 7 day inundation line, outline the boundaries, and label them as W or FWP as appropriate.

NOTE: Changes to the "W" may be made on appeal when on-site documentation shows an area to be above the 7-day line.

STEP 3 Review County Soil Survey and County hydric soil list. Identify soil map units not containing hydric soils including of hydric soils and label them "NW".

STEP 4 Outline areas where no determination will be made. These include non-agricultural land such as farmsteads, timbered areas (use 25% or more canopy cover of woody species as a guide for timbered) outside of the 7 day inundation line in the floodplain, native pastures, streams, drainage ditches, and other agricultural land where it is impossible to make a determination from viewing the slides. Label these as ND. Areas too small to outline within cropland, including single trees and single tree wide fence rows that are not drainage ways, are considered part of the cropland field and are considered whatever the surrounding field is (e.g. PC, NW, FW).

STEP 5 As per NFSAM 514.52, review previous determinations for compatibility with these conventions. Outline and label with the appropriate symbol (W, CW, CWNA, CWTE, etc.) previous determinations, including determination as a result of appeals process.

- STEP 6 For remaining hydric soil areas on agricultural land not "flagged" through Steps 1, 2, 3, 4, or 5, review CFSA color slides for the selected five years looking for the wetland signatures to indicate whether the 15 day inundation criteria is met by ponding on cropped Ag land or whether the 7/14 day hydrology criteria is met on non-cropped Ag land. The process is:
- a. From the five years of slides, select a wet appearing year and identify all potential sites.
 - b. Indicate on the inventory worksheet whether or not the site is on the NWI map.
 - c. For the years of slides chosen, indicate on the inventory worksheet which wetland signatures are visible. Consider the site to meet wetland criteria if:
 - i. The site appears on NWI maps and signatures appear 40% or more of the years reviewed.
 - ii. The site does not appear on the NWI map, but signatures are present 60% or more of the years reviewed.

NOTE: As per USDA policy, land in CRP is considered to be in commodity production. Therefore, Conservation Reserve Program (CRP) land will be inventoried using the same criteria as cropland. The signatures used for cropland are transferable to CRP. However, the longer the land is in CRP, the less likely it is that slides represent the cropland condition. Therefore, because the land is still considered to be in agricultural commodity production, slides from years in CRP (especially latter years of the contract) may not be relevant and should not be used as the sole basis for a wetland determination.

STEP 7 For those identified sites which meet the inventory criteria, define wetland site boundaries on the base map. (For the extent of the area to be outlined, use hydric soil and depression spot symbol soils as a guide, and modify boundaries based on area shown on slides during years of normal precipitation). Wetland signatures identified in non-hydric map units must be field verified. Measure acres of the site.

- STEP 8
- a. Compare previous inventory for the site to identified sites to assure none have been omitted or added incorrectly.
 - b. For identified sites, compare 1985 slides to latest available photography (1992 or 1993) to determine if areas on the inventory have been manipulated after December 23, 1985. If sites have been manipulated, label them CW or CW+ year as appropriate. Make changes as indicated for 1993 flood damage as shown on page 13.

NOTE: If on appeal, a site is shown to be not capable of producing an Agricultural Commodity, it may be changed to WX.

STEP 9 Review sites identified on the inventory, label them as per NFSAM. The following are general definitions:

a. CROPPED (produced agricultural commodity) BEFORE DECEMBER 23, 1985:

- PC The sites identified in a field do not meet the mapping conventions and all soils in the field are hydric soil.
- NW Mapping convention not met and sites in a field are non-hydric.
- NW/PC Mapping convention not met but field contains hydric and non-hydric soils.
- FW The sites identified meet the 7/14 day criteria as evidenced by meeting the mapping convention and has not been abandoned.

NOTE: During the appeal process, changes of FW or FWP to PC may be made if it is found that the site appeared on the inventory due to the set-aside and/or crop stress signatures. The site may be changed if: abandonment has not occurred; the producer provides, or NRCS has, pre-1985 drainage information for the site; a review, by a person trained in aerial photo interpretation, of more available slides (must meet slide selection criteria in "Mapping Tools - Point 8" on pages 3 and 4) shows the area does not meet wetland criteria over the long term--8 to 10 years of slides (at least 60% of the years if not on NWI, 40% if on NWI), and:

- An evaluation of the capacity of the laterals, shows them not adequate to meet required drainage coefficient, site remains FW.
- The evaluation shows laterals are adequate, then evaluate the outlet. If this evaluation shows the outlet meets the required drainage coefficient, site may be PC with a maintenance need. If not adequate, site remains FW.

b. NOT CROPPED (no agricultural commodity produced) PRIOR TO DECEMBER 23, 1985, BUT USED FOR PASTURE/HAYLAND BEFORE THAT DATE:

- PC The sites identified in a field do not meet the mapping conventions and all soils in the field are hydric soil.
- NW Mapping convention not met and sites in a field are non-hydric.
- NW/PC Mapping convention not met, but field contains hydric and non-hydric soils.
- FWP Areas with hydric soil map unit identified as a pothole and meets the mapping conventions and has not been abandoned.

NOTE: FWP may be changed to FW on appeal if production of an Agricultural Commodity on the site before December 23, 1985, is proven and abandonment has not occurred.

- c. AG-LAND MANIPULATED PRIOR TO DECEMBER 23, 1985, NOT CROPPED (no agricultural commodity produced) OR USED FOR PASTURE/HAY:

NW If mapping convention not met.

WX If agricultural production not possible and meets mapping convention.

W If agricultural production possible and meets mapping convention.

NOTE: WX or W on the map may be changed to FW or FWP on appeal if records indicate production of Agricultural Commodities or pasture/hay on the site prior to December 23, 1985, and abandonment has not occurred.

- d. NON-MANIPULATED AREAS (Usually non ag-land and is not reviewed in these conventions)

W Meets the mapping conventions.

NOTE: W sites may be changed to FW or FWP as appropriate during appeals if manipulation of the site before December 23, 1985, is proven and abandonment has not occurred.

- e. Assure that all previous W, CW, CWNA, CWTE, etc. and appeal results appear on this map.

STEP 10 Complete CPA-026, aerial photo and notify producer and CFSA as per NFSAM.

Appeals

As per NFSAM, DC's, AC's, and the STC may make changes on agricultural land determinations for reasons such as: a properly documented on-site investigation shows technical errors such as no hydric soil, hydrology, and/or vegetative criteria being met due to a lack of indicators; mistakes on the inventory such as rock piles, silos, or other misinterpretation of photographic signatures; or site is found to be waters of the U.S. and not wetland, etc. Per these conventions, the DC, AC, and STC may also make changes on appeals for any situations shown in the "Notes throughout the document". For these types of changes, the other three agencies are to be notified of the location of the change, what the change was, and the reason(s) for the change. (Copies of the letter to the appellant suffice if these items are well covered in the letter.)

For any other situations on agricultural land and all non-agricultural land where any level of NRCS is contemplating a change during appeals, it must be based on documented on-site information. The Corps, EPA, and USFWS must be notified in writing before any change is made. The notification will include location (map of the site(s) in question), current determination (type and acreage), determination if change is made (type and acreage), off-site documentation using MOA mapping conventions if Agricultural land, and on-site appeal documentation worksheets and related documentation for vegetation soils and hydrology (use NRCS NFSAM Worksheets for agricultural land and Corp's 87 Manual Worksheets for non-agricultural land), and a description/summary of the logic/reason for the change. The USFWS has 30 days to comment in fulfilling their consultation role. The Corps and EPA have 45 days to comment in their concurrence role. The Corps and EPA also may state whether or not the change, if made, may be used for CWA purposes. If NRCS is not notified within the 30 or 45 days, concurrence is assumed, and NRCS may proceed with the change for both the Farm Bill and CWA programs.

Order of Counties - Iowa Wetland Inventory

1/20/95

- | | | | |
|-----|--------------|-----|-------------|
| 1. | Greene* | 11. | Wright |
| 2. | Pocahontas* | 12. | Winnebago |
| 3. | Kossuth* | 13. | Humboldt* |
| 4. | Webster* | 14. | Cerro Gordo |
| 5. | Story | 15. | Calhoun* |
| 6. | Hancock | 16. | Emmet* |
| 7. | Polk* | 17. | Dallas* |
| 8. | Hamilton | 18. | Palo Alto* |
| 9. | Hardin | 19. | Boone* |
| 10. | Franklin | 20. | Worth |
| 21. | Clay* | 31. | Marion |
| 22. | Buena Vista* | 32. | Mahaska |
| 23. | Dickinson* | 33. | Marshall |
| 24. | Osceola* | 34. | Tama |
| 25. | Carroll* | 35. | Grundy |
| 26. | Sac* | 36. | Black Hawk |
| 27. | Guthrie* | 37. | Butler |
| 28. | Jasper | 38. | Bremer |
| 29. | Poweshiek | 39. | Floyd |
| 30. | Warren | 40. | Chickasaw |
| 41. | Mitchell | | |
| 42. | Howard | | |
| 43. | Lucas | | |
| 44. | Monroe | | |
| 45. | Wapello | | |
| 46. | Wayne | | |
| 47. | Appanoose | | |
| 48. | Davis | | |

Counties remaining in Eastern MLRA 108
Counties remaining in MLRA 104
Counties remaining in MLRA 105
Counties remaining in Eastern MLRA 109
Counties remaining in Western MLRA 108
Counties remaining in Western MLRA 109
Counties remaining in MLRA 102
Counties remaining in MLRA 107

- * The county aerial photography to be used for base maps has not been received, as of 1/20/95. As these photographs are received, these counties will move to the top of the list.)

In making comparisons on sites changed due to the flood of 1993, the following delineations apply:

Convention Delineation:	New FSA Delineation and Uses	
	Flood Scour ^{1/}	Flood Deposition
PC	PW + yr - maintain, fill, farm or abandon	PC - maintain, remove, any other practical activity, and farm
W	W	Partial filling - farm under natural conditions - < W > ^{2/} Completely filled - NW
FW	FW - maintain to pre-flood, condition farm or abandon	Partial filling - maintain, farm or abandon - < FW > ^{2/} Completely filled - PC
NW (w/hydric soils)	PW + yr - maintain, fill, farm under natural conditions or abandon	NW - any activity permitted
CW CW + yr	Treat as prior to flood (delineate on new maps) ^{3/}	Treat as prior to flood (delineate on new maps) ^{3/}

Note: FW and W areas removed from wetland maps will be "X'ed" out on the base map, dated, and an explanation included on the reverse stating: "Removed due to Flood of '93."

- ^{1/} Abandonment rules apply after five years; if wetland criteria returns. PW + yr areas will be re-evaluated in five calendar years.
- ^{2/} < > - A re-evaluation after five calendar years may show that wetland criteria is lost. Remap as PC or NW.
- ^{3/} Flood does not relieve person from past decisions; however, the flood may have restored a converted wetland. A restoration agreement is required.

These conventions have been reviewed and are concurred in by the Iowa personnel of the U.S. Fish and Wildlife Service, Corp of Engineers, Environmental Protection Agency, and Natural Resources Conservation Service. These conventions may be revised at any time with concurrence of all agencies at the state level and approval from the national level.

James R. Munson Iowa Private Lands Coordinator U.S. Fish and Wildlife Service	Date	Steven J. VanderHorn Chief Regulatory Functions Branch Operations Division U.S. Army Corp of Engineers Rock Island District	Date
Gene Gunn Acting Chief Environmental Review Branch U.S. Environmental Protection Agency	Date	Richard Bishop Wildlife Supervisor Iowa Department of Natural Resources	Date
Major Mary Dills Acting Chief Regulatory Branch Operations Division U.S. Army Corps of Engineers Omaha District	Date	Leroy Brown State Conservationist Natural Resources Conservation Service	Date