

ENVIRONMENTAL ASSESSMENT AND
FINDING OF NO SIGNIFICANT IMPACT
FOR THE MIDWEST REGIONAL SUPPLEMENT
TO THE 1987 WETLAND DELINEATION MANUAL

Purpose and Need

The purpose and need for this supplement to the 1987 Manual is to use the best available scientific and technical information for improving precision in delineating upland/wetland boundaries in the Midwest for purposes of Section 404 of the Clean Water Act and provide a procedure for continual future updates as more data are gathered and analyzed.

Background

The U.S. Army Corps of Engineers Wetland Delineation Manual was published in 1987 (Environmental Laboratory, 1987) and identified a three-parameter approach to delineating wetlands – hydric soils, wetland hydrology and hydrophytic plants. Use of this manual for wetland delineation by Corps Districts has been mandatory since 1991.

Since the manual was first published, the U.S. Fish & Wildlife Service (FWS) proposed updating the 1988 National Plant List and the Natural Resources Conservation Service (NRCS) has published newer versions of the “Hydric Soils of the United States”. In addition, wetland science has advanced the understanding of the processes (e.g., biochemical) in these systems.

In 1993, the U.S. Congress requested that the Environmental Protection Agency (EPA) ask the National Academy of Sciences, National Research Council (NRC) to create a committee to study the scientific basis for the characterization of wetlands. The committee was asked to review and evaluate the consequences of alternative methods for wetland delineation and to summarize the scientific understanding of wetland functions (National Research Council, 1995). One of the recommendations of this committee was to develop regional supplements to the 1987 Manual and that the regions should be defined on the basis of physiography, climate, vegetation and prevailing land use and should be used by all agencies for wetland characteristics.

The Corps Engineer Research and Development Center (ERDC) was asked to identify and discuss the technical issues relevant to regionalization of the manual (Wakeley, 2002). The Corps, as the lead Federal agency and author of the 1987 Manual, invited the other three Federal agencies that assess wetlands (EPA, NRCS and FWS) to participate in the development of regional supplements, as recommended by the NRC. A National Advisory Team consisting of representatives of all four Federal agencies was created to oversee the regional supplements to provide quality control, consistency on national issues and decisions regarding the timing and defining of “regions”. This regional supplement was developed by a Regional Working Group consisting of experts from Federal/state/local agencies and academia. The availability of the draft supplement was announced through the Corps public notice process for public comment and field-testing, and underwent an independent peer review as discussed below. When

finalized, the interim supplement will be implemented with additional field-testing for one year before a final version of the supplement is published by ERDC.

This document discusses the factors considered by the Corps during the development process for the Midwest Regional Supplement. This Environmental Assessment/Finding of No Significant Impact contains: (1) a discussion of the environmental consequences necessary to comply with the National Environmental Policy Act, and (2) creation of an independent peer review, their report and the Corps response to their comments as required by the Office of Management and Budget (2004).

Alternatives

We considered three alternative methods with respect to the 1987 Manual. The No Action Alternative would result in the continued use of 1987 Manual without scientific or technical changes. The preferred alternative would be to develop regional supplements that identify a regionally tailored list of indicators appropriate for that ecological region, include more helpful local photographs and descriptions and more detailed guidance on problem areas. The third alternative considered was to update and republish the 1987 Manual.

Affected Environment

This supplement is applicable to the Midwest Region, which consists of all or significant portions of 12 states: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Oklahoma, Ohio, South Dakota, and Wisconsin. The region encompasses a variety of landforms and ecosystems, but is differentiated from surrounding regions by the combination of a relatively low level of topographic relief, a humid climate with moderate to abundant rainfall, mixed prairie and hardwood natural vegetation, and the predominance of agricultural land uses including the extensive use of agricultural drainage systems.

The approximate spatial extent of the Midwest Region is equivalent to Land Resource Region (LRR) M recognized by the U. S. Department of Agriculture (USDA Natural Resources Conservation Service 2006). All of the wetland indicators presented in this supplement are applicable throughout the entire Midwest Region. Region boundaries are depicted on a map as sharp lines. However, climatic conditions and the physical and biological characteristics of landscapes do not change abruptly at the boundaries. In reality, regions and subregions often grade into one another in broad transition zones that may be tens or hundreds of miles wide. The lists of wetland indicators presented in these Regional Supplements may differ between adjoining regions or subregions. In transitional areas, the investigator must use experience and good judgment to select the supplement and indicators that are appropriate to the site based on its physical and biological characteristics. Wetland boundaries are not likely to differ between two supplements in transitional areas, but one supplement may provide more detailed treatment of certain problem situations encountered on the site.

Environmental Consequences

The No Action alternative would not achieve one of the goals of the Corps, which is to use the best scientific/technical information available in the Clean Water Act Section 404 program or the purpose and need of this project. The No Action alternative would result in continued heavy use of the “problem areas” section of the manual without additional science-based guidance. Although the 1987 Manual is updated to incorporate some other technical information such as use of updated National Plant Lists and the Natural Resources Conservation Service Field Indicators of Hydric Soils, newer information such as alternative procedures for calculating plant dominance may not be used consistently. Use of the 1987 Manual with no changes would result in continued confusion and lack of clarity, predictability, precision and consistency in the region. No changes to wetland delineation methods or boundary lines would occur with this alternative.

The preferred alternative, to develop regional supplements to the 1987 Manual using the best available scientific data, is expected to result in more consistent, science-based upland/wetland boundary determinations by Federal, tribal, state and local government delineators as well as private parties. Region-specific issues such as new hydric soils indicators, if they were developed for specific technical problems, would be included in the appropriate regional supplement. Also, region-specific technical problems such as plant cover of halophytes or morphological adaptations of certain plant species can be described and photographs and guidance will be included in each regional supplement. This results in a more user friendly and region-specific document. Also, if changes in a particular region of the country need to be made, then the entire country does not need to change versions.

Changes to this supplement would be much easier than continuous changes to a national manual. There will be some training requirements for both agency personnel and private companies as this supplement is finalized. A transition period of one year will occur when the interim document is published and additional data will be collected on perceived changes to upland/wetland boundaries based on the new supplement. Additional needed changes will be made prior to publishing a final document. It is not expected that the regional supplement will have the net effect of increasing or decreasing the total amount of wetlands in the Midwest Region, although site-specific boundary changes may occur. These changes may occur due to more refined plant indicators or the use of new soils or hydrology indicators. The testing period using the interim document will allow for further identification of the types and reasons that changes to wetland boundaries occur, prior to finalization of the document. If significant changes to wetland boundaries of specific types or in specific geographic locations occur, an analysis would be completed to determine the acreage of wetland affected and the indicator(s) responsible for the change. However, all areas must continue have all three parameters – wetland hydrology, hydric soils and hydrophytic vegetation – in order to be determined to be a wetland that may be regulated under Section 404 of the Clean Water Act.

The third alternative would be to update and republish the 1987 Manual. Some overlap in supplements is expected as they are developed from west to east and common themes may eventually develop, resulting in changes and republication of the 1987 Manual for national issues

such as changes to procedures for plant dominance calculations that may be identified. However, without identifying specific technical problems by developing regional supplements, it is difficult to articulate national issues. There would be a difficulty in answering problem area questions across the country without a systematic approach to identifying technical problems and solutions. This alternative would likely take an addition 5-6 years to identify all of the national technical problems and result in continued difficulty updating a single document.

Coordination with Others

Copies of the comments received during the public comment period are attached to this document. A 60-day comment period was announced by public notice by the Midwest Corps Districts on or near June 26, 2007. This date is approximate, as the date of the public notices from each district do not correspond exactly with this date. Comments were received from the following individuals:

Letters were received from the Peoria Tribe of Indians of Oklahoma, and the Sac & Fox Tribe of the Mississippi in Iowa stating they had no comments and identifying the Tribes' concerns with any proposed changes that would fall under the Native American Graves Protection and Repatriation Act (NAGPRA).

Application of the regional supplement will have no effect on NAGPRA concerns. We continue to encourage tribal participation in the development of all of the regional supplements.

Environmental Protection Agency, Region VII. EPA concluded, after interagency field testing in portions of Kansas outside of the Midwest region, that some wetlands may be lost due to changes in the hydrology and soils criteria. They were specifically concerned that the use of the "Technical Standard for Hydrology in Problem Areas" in conjunction with stream gauge data would reduce the amount of identified wetland acreage. They indicated they were designing a study to gather data to determine the number of days of hydrology associated with wetlands in the region.

Although EPA has been a partner in the regionalization process and is represented on the Midwest Working Group, they provided additional written comments and concerns. They expressed concern about the 14-day hydrologic standard in place of the 5% of the growing season used in the 1987 Manual and the 7-day standard for flooded or ponded hydric soils. The Corps is implementing the 14-day standard, if no other region-specific standard has been established, based on the recommendations and technical authority of the National Academy of Sciences. These supplements allow for different hydrologic standards that may be developed for a region or for a particular wetland type. If EPA's ongoing studies result in improved hydrologic standards for Midwest wetland types, then these standards can be incorporated into future versions of the supplement.

Independent Peer Review:

The purpose of the Office of Management and Budget Information Quality Guidelines (2004) is to enhance the quality and credibility of the government's scientific information, recognizing that different types of peer review are appropriate for different types of information. A copy may be obtained at http://www.whitehouse.gov/omb/inforeg/peer2004/peer_bulletin.pdf. The Federal agencies were granted broad discretion to weigh the benefits and costs of using a particular peer review mechanism; however, agencies strive to ensure that their peer review practices are characterized by both scientific and process integrity. Peer review is one of the important procedures used to ensure that the quality of published information meets the standards of the scientific and technical community and involves the review of a draft product for quality by specialists in the field who were not involved in producing the draft. The peer review report is an evaluation or critique that is used by the authors of draft information that contains important scientific determinations to improve the product. The selection of participants in a peer review is based on expertise, with due consideration of independence and conflict of interest. In some cases, reviewers might recommend major changes to the draft, such as refinement of hypotheses, modifications of data collection or analysis methods, or alternative conclusions. However, the peer review does not always lead to specific modifications in the draft product. In some cases, the authors do not concur with changes suggested by one or more reviewers.

A peer review is considered completed once the agency considers and addresses the reviewers' comments and incorporated where relevant and valid. In cases where there is a public panel, the agency publishes the peer review report(s) and the agency's response to the peer review comments. Agencies prepare a written response to the peer review report explaining: the agency's agreement or disagreement, the actions the agency has undertaken or will undertake in response to the report, and (if applicable) the reasons the agency believes those actions satisfy and key concerns or recommendations in the report. A copy of the peer review report, including the responses to the comments, is included as an attachment to this document.

Finding of No Significant Impact:

In compliance with the National Environmental Policy Act (NEPA) and its implementing regulations at 40 CFR parts 1500 – 1508, an Environmental Assessment has been prepared for this rule. The Corps prepares appropriate NEPA documentation, including Environmental Impact Statements when required, for all permit decisions. The environmental review process undertaken for this rule has led me to conclude that the publication of this supplement will not have a significant effect on the human environment, and therefore an Environmental Impact Statement is not required by §102(2)(C) of NEPA or its implementing regulations. A copy of this Environmental Assessment with attachments is available from the U.S. Army Corps of

Engineers, HQUSACE, Operations and Regulatory Community of Practice, 441 G Street, NW,
Washington, DC, 20314-1000 and on the Regulatory Homepage at
http://www.usace.army.mil/inet/functions/cw/cecwo/reg/reg_supp.htm.



Lawrence A. Lang
Michael G. Ensched
Chief, Operations
Directorate of Civil Works



Literature Cited

Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

National Research Council (NRC). 1995. Wetlands Characteristics and Boundaries. National Academy Press (Washington, DC). 308 pp

Office of Management and Budget. 2004. Final Information Quality Bulletin for Peer Review.

USDA Natural Resources Conservation Service 2006. *Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin*. Agriculture Handbook 296. Washington, DC: U.S. Department of Agriculture. (<http://soils.usda.gov/survey/geography/mlra/index.html>)

Wakeley, J. S. (2002). "Developing a 'Regionalized' Version of the Corps of Engineers Wetlands Delineation Manual: Issues and Recommendations," ERDC/EL TR-02-20, U.S. Army Research and Development Center, Vicksburg, MS.



Public Notice

**US Army Corps
of Engineers**
Louisville District

Public Notice No.	Date:	Closing Date:
LRL-2007-785-asb	26 June 2007	26 August 2007

Please address all comments and inquiries to:
U.S. Army Corps of Engineers, Louisville District
ATTN: Ms. Amy S. Babey, CELRL-OP-FN
P.O. Box 59
Louisville, Kentucky 40201-0059

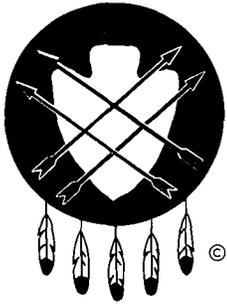
Phone: (502) 315-6691

The U.S. Army Corps of Engineers, Louisville District, announces the availability of the Draft Mid-West Regional Supplement to the 1987 Wetland Delineation Manual (Environmental Laboratory 1987). This draft regional supplement was developed by wetland delineation experts from state and Federal agencies and academia with experience within the region. It is being peer reviewed by an independent panel of scientists and practitioners (report is available upon request). This draft is also being field tested by interagency teams of state and Federal scientists to assess its clarity and ease of use, and to determine whether use of this supplement will result in any spatial changes in wetland jurisdiction for Clean Water Act Section 404 purposes. The draft is available at http://www.usace.army.mil/inet/functions/cw/cecwo/reg/reg_supp.htm.

We are specifically seeking public input, including additional scientific information or data, on the proposed indicators of wetland hydrology, hydric soils, and hydrophytic vegetation and data collection procedures in this draft document. Commentors may wish to field test this supplement as part of their evaluation and comments. If so, the protocol for field testing must include the use of (1) the 1987 Wetland Delineation Manual with current guidance and (2) the 1987 Manual with this draft regional supplement on the same sampling points. A minimum of two points must be documented, one in the lower (wetland) community and one in the adjacent higher (upland) community. Commentors should include data recorded on both the current 1992 data forms and the proposed data forms from the Regional Supplement, maps indicating the location of the field site and data collection points (upland and wetland), and a completed questionnaire (see attached) for each delineation.

Comments may be submitted by the above due date to Ms. Katherine Trott (CECW-CO), U.S. Army Corps of Engineers, 441 G. Street, NW, Washington DC 20314-1000 or by e-mail to 1987Manual@usace.army.mil. Another public notice will be issued by this district announcing the publication of the final document and the implementation date of this supplement.

Reference: Environmental Laboratory. (1987). "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
(<http://el.erdc.usace.army.mil/wetlands/pdfs/wlman87.pdf>)



PEORIA TRIBE OF INDIANS OF OKLAHOMA

118 S. Eight Tribes Trail (918) 540-2535 FAX (918) 540-2538
P.O. Box 1527
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CHIEF
John P. Froman

SECOND CHIEF
Jason Dollarhide

June 26, 2007

U.S. Army Corps of Engineers
Attn: Regulatory Program
441 G Street, NW
Washington, D.C. 20314-1000

RE: Public Notice No: Wetland Delineation Manual
Mid-West Regional Supplement

Thank you for notice of the referenced project. The Peoria Tribe of Indians of Oklahoma is currently unaware of any documentation directly linking Indian Religious Sites to the proposed construction. In the event any items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) are discovered during construction, the Peoria Tribe request notification and further consultation.

The Peoria Tribe has no objection to the proposed construction. However, if any human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, the construction should stop immediately, and the appropriate persons, including state and tribal NAGPRA representatives contacted.

A handwritten signature in black ink, appearing to read 'JPC', is written over a horizontal line.

John P. Froman
Chief

xc: Bud Ellis, Repatriation/NAGPRA Committee Chairman

TREASURER
John Sharp

SECRETARY
Hank Downum

FIRST COUNCILMAN
Carolyn Garren

SECOND COUNCILMAN
Jenny Rampey

THIRD COUNCILMAN
Alan Goforth



"MESKWAKI NATION"

Sac & Fox Tribe of the Mississippi in Iowa

349 Meskwaki Road, Tama, IA 52339-9634 • (641) 484-4678 FAX (641) 484-5424

June 22, 2007

U.S. Army Corps of Engineers
ATTN: Regulatory Program
441 G Street, NW
Washington, D.C. 20314-1000

To Whom It May Concern:

Thank you for the notice concerning the project:

Wetland Delineation Manual Mid-West Regional Supplement

At this time, the Historical Preservation Department of the Sac and Fox of the Mississippi in Iowa has determined the above listed has:

- No interest in the area geographically
- No comment on the proposed undertaking
- No objections. However, if human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, please stop immediately and notify the NAGPRA Representative, Johnathan L Buffalo.
- Have an objection or require additional project information. Please send the following:

Sincerely,

Johnathan L. Buffalo
Historical Preservation Director
Sac and Fox of the Mississippi in Iowa

Cc: File



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

AUG 16 2007

Ms. Katherine Trott (CECW-CO)
Army Corps of Engineers
441 G. Street NW
Washington, D.C. 20314-1000

RE: Comments on The Midwest Supplement and the Great Plains Supplement to the 1987 Corps Wetland Delineation Manual

Dear Ms. Trott:

The following comments are in response to the July 15, 2007, Public Notice regarding the Draft Midwest Supplement to the 1987 Corps of Engineers Wetland Delineation Manual. We appreciate the opportunity to provide comments on the Delineation Manual Supplements.

General Comments:

Regionalization and refinement of the 1987 Corps of Engineers Wetland Delineation Manual is a very worthwhile effort. Regionalization of the 1987 Wetland Delineation Manual will offer extremely useful field indicators, provided the information in the Supplements is based on valid scientific data. In that regard, we do have a number of concerns about the proposed revisions to both the Great Plains and the Midwest Supplements and the science that serves as the basis for those revisions.

During meetings for both of the above mentioned Supplements, the Corps stated that the revisions to the Manual and the addition of the Supplements would not reduce the number and acreage of areas that are determined scientifically to be wetlands. We find, however, this is not the case. In fact, we believe that many thousands of acres of wetlands will no longer be defined as wetlands if the Supplements are adopted, as proposed.

An interagency team that includes the Corps of Engineers (the Corps), the Environmental Protection Agency (EPA), the Natural Resources Conservation Service, the U.S. Fish and Wildlife Service, and the Kansas Department of Wildlife and Parks, has been testing the Great Plains Supplement in Kansas and concluded that some wetland types may no longer be determined to be wetlands based on the Manual revisions in the that Supplement. We believe this will be a similar situation in Missouri, Nebraska and Iowa based on revisions to both the hydrology and soil criteria, not only in the Great Plains Supplement, but also the Midwest Supplement.

Specific Comments:

While we believe that refinement of the indicators for each of the three parameters is needed, we also believe that eliminating indicators that have served well over the past two decades, without benefit of thorough testing to understand the ramifications of their elimination, is a not a science-based decision.

Hydrology Criteria:

We are particularly concerned about the removal of Table 5 on page 30 of the 1987 Wetland Delineation Manual and the use of a Technical Standard for Hydrology in Problem Areas. This Technical Standard (TS), we have been told by Jim Wakeley, is based on a 1995 National Academy of Sciences (NAS) study, entitled, "Wetlands: Characteristics and Boundaries." On page 107 the study states that through available data (based solely on two datasets, one in North Dakota and one in North Carolina), "reasonable hydrologic thresholds would include a depth to water table of <1 ft (30 cm) for a continuous period of at least 14 days during the growing season, with a mean interannual frequency of 1 out of 2 years." The study goes on to state that: **"More scientific information is needed especially for areas where saturation itself, rather than anoxia, is responsible for the presence of hydrophytes."** Our concern with the use of this TS is the lack of scientific validity due to the number of sampling sites that serve as a basis for the hydrology criterion. It is this second statement, however, that caveats the sampling data, stating a need for additional scientific study where saturation is the key. It is the need for this additional information that concerns us, as we do not believe that the Technical Standard for Problem Areas is valid for the vast majority of our wetlands with in Region 7. For your information, Region 7 includes the states of Iowa, Kansas, Missouri and Nebraska.

The removal of Table 5 from the 1987 Manual does not provide for any other criteria (not indicators) for hydrology, other than the TS to be used for Problem Areas. As this TS is now the only standard for the hydrology criterion, it becomes the default criterion for all wetlands in terms of frequency and duration. To be consistent and scientifically valid, for instance, one would not use one TS for Problem Areas and a totally different TS for all other wetlands. If a wetland delineation were taken to court, the Problem Area TS would be used as the criterion for hydrology, as no other criterion remains after the removal of Table 5.

Over the years, since the 1987 Manual was tested and then used, the Corps Districts and Region 7 found that using Table 5 provided a valid rationale for the hydrology in our states. Although we understood that when the Manual was written Table 5 was meant to be used for the Mississippi Valley. However, after much discussion and field experience, we also found that it worked well for our states. We have been using five percent of the growing season since the implementation of the Manual because we found that the hydrology coincided with the hydrology of the wetlands within our states, and validated where we have available gauge data. This amounted to between 7 and 11 days of flooding, ponding and/or saturation. To now remove Table 5 and rely on a TS that reduces the number and acreage of areas that can be determined as wetlands, is contrary to what we have been told is the purpose of the Supplements.

Additionally, in the Midwest Supplement, we find that the Problem Area TS for hydrology has now been incorporated into the Gauge Data Indicator, as well as in many other notations in the hydrology and other sections (i.e., pages 53, 80 and 96). Again, this is problematic for the areas we are now determining to be wetlands. There is no gauge data for any major river within Region 7, including the Missouri River, let alone a stream, that would meet this Indicator. This was validated during our testing of the proposed 1991 hydrologic changes that would have required 20 days of inundation.

We do not understand the urgency of using the Problem Area TS when data is so limited in both the Great Plains and the Midwest concerning the frequency and duration of inundation and saturation in most of our wetland types. Both inundation and saturation are part of the wetland definition used by both the Corps and EPA, and should be considered as part of any TS for hydrology. It is also hard to believe that the TS should be applied before the consequences of its application are known. Furthermore, the requirement that any regional changes to the TS must be based on scientific data collected for each wetland type is contrary to the decision made by the Corps to use the TS without benefit of hydrologic data for each wetland type. Because Region 7 has at least 28 wetland types, it would take years of field time and funding to collect data for each of those wetland types.

If this TS for Hydrology for Problem Areas and the Gauge Data Indicator remain in the Supplements, many thousands of acres of wetlands will no longer be determined to be wetlands. EPA Regions 7 and 8, and EPA Headquarters are currently funding a study to evaluate this hydrology criterion so that we can provide more definitive scientific evidence about the TS. The study is being conducted in areas that will utilize either the Great Plains or the Midwest Supplements. As the study is being conducted during one growing season, we have arranged with USGS to “normalize” the data that is collected based on information about soils, precipitation, saturation and inundation.

One example of an area where we believe wetlands will be lost is Lake of the Ozarks. Gauge data at Lake of the Ozarks shows inundation for about 9 days. This lake has both fringe wetlands and wetlands in the headwaters of coves around a 1,125 mile shoreline. Research has shown that these wetlands are the spawning areas for the vast majority of sport fish in the lake. Fishing, which includes major tournaments, is not only a huge draw for tourism in the state, but also of vital importance to the state economy. Yet, these fringe and headwater of cove areas will no longer be delineated as wetlands, as gauge data was the primary hydrology tool used for the determination of not only hydrology, but hydric soils (based on the definition of hydric soils – soils that have a peri-aquic moisture regime).

Because the definition of the growing season is also proposed for revision, the use of Table 5 along with the revised growing season definition would extend the number of days of flooding, ponding and/or saturation. As we believe the hydrology criteria should not be changed to extend the number of consecutive days for flooding, ponding and/or saturation, we do not believe that Table 5 would be meaningful. However, we believe that there should be an effort made to maintain the current criterion for hydrology so that our wetlands are still delineated as

wetlands. Regionalization of the hydrology criterion for the Midwest and the Great Plains is likely the key.

Soil Indicators:

Although we have not done testing in the Midwest for soils to date, we have done testing in the Great Plains through the interagency group. During the sampling in the Great Plains, we found that the new soil indicators are not found in certain wetland types, such as saline wetlands and seeps. We also found that the soils that are near the edge of wetter areas in playads do not meet the new soil indicators (the drier areas at the fringes meet the criteria, but not the wetter areas). The loss of these areas as wetlands is problematic. Even though these areas may no longer be determined to be jurisdictional under the Clean Water Act (CWA), we have three states in Region 7 and one Tribe that use the 1987 Manual for waters of their states\tribe. Furthermore, if the CWA is revised in the future, these areas that are lost due to the proposed revisions would never be delineated as wetlands.

Recommendations:

We believe that many thousands of acres of wetlands within Region 7 will no longer be delineated as wetlands as a result of the proposed revisions to the criteria and indicators. This estimation is based on both the field experience of our staff (30 years) and recent field testing through the interagency team in Kansas. While refinement and regionalization of the indicators is needed, we believe that further testing is also needed before the old indicators are removed (e.g., the proposed Table 1 of both Supplement that lists which Sections of the Manual are to be replaced). There is no reason to throw out the proverbial baby with the bathwater until the consequences are understood more fully. Additionally, the testing that has been completed for the Great Plains has been limited and does not present a full picture of the consequences. As it appears, however, we will definitely lose areas that will no longer be classified as wetlands.

The TS for Hydrology in Problem Areas is not accurate for the vast majority of areas that we have previously been determining as wetlands. Because all other criteria for the frequency and duration of hydrology are being removed that allow us to determine these areas as wetlands, we believe that the TS should not be applied to either the Midwest or Great Plains Supplements. When our hydrology study is completed, we will have further documentation about the true hydrology of some of our wetlands, and that data will constitute a larger sample size than that collected in the NAS study. However, the data collected will be limited to specific wetlands and not present a full picture of hydrology for all of our wetland types. Until valid science proves that the TS is accurate for the Midwest and the Great Plains, we believe it should not be incorporated into the document. Use of a 7 to 11 days of consecutive flooding, ponding and\or saturation would serve as a TS for the hydrology criterion for both areas, regardless of the change in growing season definition.

If the true purpose of the regionalization effort is to develop a more accurate method of delineating wetlands without reducing the number of acres of wetlands, the Corps must seriously consider these comments. We again appreciate the opportunity to comment on the Supplements.