

**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

October 26, 1993

To: Board of Directors (Executive Committee--Information)
(Special Committee on Legislation--Information)

From: General Manager

Subject: Discussion of Wetlands Definitions in Support of Legislative
Policy Principles for Wetlands

Report

Introduction. Your Board adopted legislative policy principles for wetlands at its October 1993 meeting, and at that time requested clarification and further discussion of the meaning of the term "wetlands". This letter outlines state and federal definitions of wetlands and identifies how those definitions are being used in state and federal regulatory processes. Beyond the actual definitions of the term "wetlands" are the criteria used to identify wetland areas that are subject to regulation. This letter discusses federal wetland delineation manuals, revisions to these manuals over time, and compares the revised manuals to one another on the basis of key delineation criteria. Lastly, this letter discusses Metropolitan's wetlands policy principles in light of the above.

Background. Wetlands are one class of waters that are regulated by a number of state and federal agencies. It is important to note that wetlands are only a subset of waters. The U.S. Army Corps of Engineers (Corps) regulates wetlands as a subset to "waters of the United States". The Mississippi River, for example, is a water of the United States to its ordinary high water mark. Adjacent to (and usually at a higher elevation than) the ordinary high water mark may be marshes, swamps, and wet bottomland hardwoods that are wetlands, also classified as waters of the United States.

In Southern California, wetlands are relatively rare, as the climate does not allow for the accumulation of surface or near surface water for the required duration of time. Nevertheless, there are many jurisdictional waters of the United States that may not support wetlands. Examples of local "waters" that may not support wetlands include arroyos, dry washes, intermittent streams, and dry lakes.

State Definitions of Wetlands. There are three different definitions generated by the State of California as cited and compared in Table 1. The California Coastal Act defines wetlands and the California Coastal Commission has adopted implementation guidelines that specify use of the U.S. Fish and Wildlife Service Cowardin definition to delineate wetlands within the coastal zone. The California Department of Fish and Game (CDFG) also uses the Cowardin definition in its oversight of modifications to streams, lakes, and ponds (and their adjacent wetlands) pursuant to Section 1601/3 of the California Fish and Game Code. The San Francisco Bay Conservation and Development Commission does not have a definition of wetlands, but uses a definition of "Suisun Marsh" or "Marsh" for purposes of its administration of the Suisun Marsh. The California Wetlands Preservation Act defines wetlands, but this definition was developed for study purposes and is not currently used in any way.

The State Water Resources Control Board and its regional water quality control boards participate in the regulation of wetlands through section 401 of the federal Clean Water Act. The Corps' definition and delineation manual are used for this purpose.

Federal Definitions of Wetlands. Four federal agencies have authority to identify and delineate wetlands: Corps, U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service, and U.S. Soil Conservation Service.

The Corps and EPA are responsible for making jurisdictional determinations of wetlands regulated under section 404 of the Clean Water Act. The FWS is conducting an inventory of the nation's wetlands and is producing a series of National Wetlands Inventory maps for the entire country. The Soil Conservation Service has become deeply involved in wetland determinations through the "Swampbuster" provision of the Food Security Act of 1985. The Corps and

EPA utilize the same definition of wetlands, and Soil Conservation Service uses a very similar one. All three agencies are currently using the Corps' 1987 delineation manual. Table 2 cites and compares the wetland definitions.

The Fish and Wildlife Service definition is substantially different from that used by the other three federal agencies. The Fish and Wildlife Service definition requires a wetland exhibit hydric characteristics in at least one of three parameters: vegetation, soil, and hydrology. The Corps/EPA/Soil Conservation Service definitions require that a wetland exhibit hydric characteristics in all three areas. As a result, wet areas with no vegetation, such as mudflats, are not considered wetlands for purposes of regulation under section 404.

Federal Wetlands Delineation Manuals. The wetland delineation manuals developed to implement the wetland definitions for regulatory purposes are subject to great controversy. While the definitions are similar and have not changed over time, the federal regulatory agencies have been inconsistent in their determination of what constitutes a wetland. Further, the delineation manuals have undergone several major revisions.

In 1987, the Corps of Engineers adopted a wetland delineation manual for use by its section 404 regulatory program. The EPA had a separate manual for reviewing the Corps 404 regulatory program. In 1989, the four federal agencies (Corps, EPA, FWS, and Soil Conservation Service) adopted the "Federal Manual for Identifying and Delineating Jurisdictional Wetlands" to resolve inconsistencies in federal wetlands regulation.

Use of the 1989 manual resulted in vast expansion of areas regulated as wetlands. Landowner complaints caused Congress to prohibit the Corps from performing wetland delineations using the 1989 manual. As a result, the Corps and EPA reinstated the 1987 manual until a new manual is adopted. In 1991, the four federal agencies proposed a new manual that was extensively criticized for failure to regulate many "true" wetlands. Subsequently, the National Academy of Sciences was requested to study wetlands delineation and a report is expected in the Fall of 1994. Table 3 outlines key differences between the Corps' 1987 manual (currently in use), the unified 1989 manual (adopted by the four agencies), and the 1991 manual (proposed, but not adopted).

Definition of Wetlands for Metropolitan's Legislative Policy Principles. Many resource agencies (Fish and Wildlife Service, California Department of Fish and Game, California Coastal Commission) are using the broader Cowardin definition of wetlands in their work. Discussions of the advantages and disadvantages of the Corps/EPA and Cowardin approaches with resource agency staff indicate that important ecological wetlands are not jurisdictional wetlands for the Corps and EPA. On the other hand, both methods are likely to delineate the undesirable tamarisk as a wetland. What seems to be needed is a delineation method that identifies all ecological wetlands (such as Cowardin) used in tandem with a screening method to eliminate or reduce protection and regulatory review for low value wetlands and for compatible or minimally-disruptive activities within wetlands.

For purposes of Metropolitan's legislative policy principles for wetlands, Metropolitan should utilize the more inclusive Cowardin definition, but seek appropriate exemptions.

Board Committee Assignments

This letter is referred for information to:

The Executive Committee because of its jurisdiction over legislation sponsored by the District or in any way affecting the District, pursuant to Administrative Code Section 2417(a); and

The Special Committee on Legislation because of its responsibility to review staff's recommendations for positions on legislation, pursuant to Administrative Code Section 2581(b).

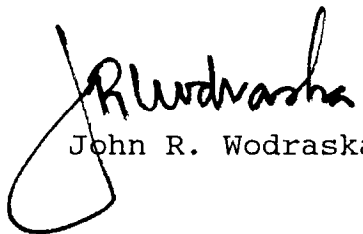
Recommendation

For information only.

KMK/dgs

mm/b: BD-WETDEF

Attachments



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TABLE 1

CALIFORNIA WETLAND DEFINITIONS

Source	Definition	Use of Definition	Discussion
Public Resources Code, Division 20, California Coastal Act, Section 30121	"Wetland" means lands within the coastal zone which may be covered periodically or permanently with shallow water and which include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, fens, and vernal pools.	Used by California Coastal Commission to administer the Coastal Use Permit program.	In 1981, the Coastal Commission adopted guidance that states that the USFWS Cowardin classification system will be used <u>as a guide</u> in wetland identification and will form the basis of the Commission's review of projects within wetlands. The Coastal Commission and its staff generally relies on CDFG to identify and delineate wetlands.
Policies appended to California Fish and Game Code	USFWS Cowardin definition (See Table 2)	For application by CDFG to CEQA, NEPA, California Coastal Act, Clean Water Act and other applicable state and federal laws and regulations.	Formally accepted by Fish and Game Commission in June 1987.
California Fish and Game Code Section 2785(g)	"Wetlands" means lands which may be covered periodically or permanently with shallow water and which include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, fens, and vernal pools.	Governs expenditure of funds by the Wildlife Conservation Board pursuant to California Wildlife Protection Act of 1990 (Mountain Lion Initiative-Proposition 117).	The Mountain Lion Initiative specifies that funds may be used for acquisition, enhancement, and restoration of wetlands.
Public Resources Code, Division 19, Suisun Marsh Preservation Act, Section 29101	"Suisun Marsh" or "Marsh" means water-covered areas, tidal marsh, diked-off wetlands, seasonal marshes, lowland grasslands, upland grasslands, and cultivated lands specified on the map identified in Section 16 of that chapter of the Statutes of the 1977-78 Regular Session enacting this division.	Used by San Francisco Bay Conservation and Development Commission (BCDC) to administer the Suisun Marsh in the San Francisco Bay Area.	The BCDC has no formal definition of wetlands. BCDC polices focus on protection of marshes and mudflats.
Keene-Nejedly California Wetlands Preservation Act (1976)	"Wetlands" means streams, channels, lakes, reservoirs, bays, estuaries, lagoons, marshes and the lands underlying and adjoining such waters, whether permanently or intermittently submerged, to the extent that such waters and lands support and contain significant fish, wildlife, recreational, aesthetic, or scientific resources.	Carries no force of law.	N/A

TABLE 2

FEDERAL WETLAND DEFINITIONS			
Source	Definition	Use of Definition	Discussion
USFWS, Early Definition (1956): Circular 39	The term "wetlands" ...refers to lowlands covered with shallow and sometimes temporary or intermittent waters. They are referred to by such names as marshes, swamps, bogs, wet meadows, potholes, sloughs, and river-overflow lands. Shallow lakes and ponds, usually with emergent vegetation as a conspicuous feature, are included in the definition, but the permanent waters of streams, reservoirs, and deep lakes are not included. Neither are water areas that are so temporary as to have little or no effect on the development of moist-soil vegetation.	Provided for historical evidence only; has no relevance to current regulations.	N/A
USFWS, (Cowardin et al. 1979)	Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water....Wetlands must have one or more of the following attributes: (1) at least periodically, the land supports predominately hydrophytes, (2) the substrate is predominately undrained hydric soil, and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season.	Developed for use in conducting an inventory of the Nation's wetlands.	This definition requires that a wetland exhibit hydric characteristics <u>in at least one of the 3</u> parameters (vegetation, soil, and hydrology). Also, includes both vegetated and nonvegetated wetlands, recognizing that some types of wetlands lack vegetation (e.g., mud flats, sand flats, rocky shores, gravel beaches, and sand bars).
Executive Order Number 11990, "Protection of Wetlands" (May 24, 1977)	The term wetlands means those areas that are inundated by surface or ground water with a frequency sufficient to support and under normal circumstances do or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mudflats, and natural ponds.	This definition is not utilized in any regulation currently enforced.	N/A
U.S. Army Corps of Engineers, 33 CFR 328.3(b) U.S. Environmental Protection Agency 40 CFR 230.3(t)	The term wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.	Used to administer the Section 404 permit program. Also used by State Water Resources Control Board to implement portions of the Clean Water Act.	Implementation of this definition by the 1987 wetland delineation manual requires that a wetland exhibit hydric characteristics <u>in each of the 3</u> parameters (vegetation, soil, and hydrology).
Soil Conservation Service, 1988 Manual Promulgated from the National Food Security Act of 1985	Wetlands are defined as areas that have a predominance of hydric soils and that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions, except lands in Alaska identified as having a high potential for agricultural development and a predominance of permafrost soils.	Used for identifying wetlands on farm land in assessing eligibility for benefits under the "Swampbuster Act".	While the wording of the definition is slightly different from that of the Corps and EPA, implementation is identical. SCS is currently using the 1987 delineation manual.

TABLE 3

FEDERAL COMPARISON OF A MANUALS FOR DELINEATION OF JURISDICTIONAL WETLANDS

Key Criteria	1987 Manual (Inforce)	1989 Manual (No longer used)	1991 Manual (Proposed, not adopted)	Discussion
Three Parameter Test (Vegetation, Soils, and Hydrology)	In almost all cases, an area must exhibit minimum hydric characteristics in each of the three parameters to be considered a wetland.	Interpretation by many users of the manual resulted in a two parameter test, as the manual often allowed the presumption of one of the parameters from the presence of the other two.	Required that all three parameters exhibit hydric characteristics except in disturbed areas and in certain types of wetlands such as playa lakes, prairie potholes, vernal pools, and pocosins.	Many riparian areas in Southern California do not exhibit hydric soils because the sandy substrate does not readily develop hydric characteristics. Under the 1989 manual, some of these riparian areas were considered wetlands by vegetation and hydrology only.
Hydrology Parameter- Duration of Soil Saturation	To meet the hydrology criteria, the soils must be inundated or saturated for 5% or more of the growing season (consecutive days).	Soils must be inundated or saturated for 7 consecutive days or more during the growing season.	Soils must be inundated for 15 or more consecutive days or saturated for 21 or more consecutive days during the growing season.	The growing season in Southern California (except in the mountain areas) is considered to be the full year. Five percent of the growing season is 18 days. In the arid southwest, the difference between 7, 18, and 21 consecutive days of soil saturation is very significant.
Hydrology Parameter-Depth at Which Soil Saturation is Required	To meet the hydrology criteria, the soils must be saturated for the required duration to within 12 inches of the surface.	To meet the hydrology criteria, the soils must be saturated for the required duration to within 6 to 18 inches of the surface, depending upon drainage characteristics of the soil.	To meet the hydrology criteria, the soil must be saturated for the required duration at the ground surface.	Under the 1987 and 1989 manuals, the ground need never be wet at the surface. The 1991 manual would have required inundation or saturation of the ground surface.
Vegetation Parameter	Requires that more than 50% of the species from all of the vegetation strata (herbs, shrubs, trees, vines) are facultative or obligate wetland species.	Same as 1987 manual, but also allows use of "prevalence index approach" This approach is similar to grade point averaging where Obligate is 1.0, Facultative Wet is 2.0, Facultative is 3.0, Facultative Upland is 4.0, and Upland is 5.0. Here the area meets the hydric criteria for vegetation if the average is less than 3.0.	Requires the "prevalence index approach".	It is not readily apparent how the two different methods would affect the results of a wetland delineation at any given location. However, the "prevalence index approach" is much more time consuming and would increase the cost of performing wetland delineations.