

D. R. SANDERS AND ASSOCIATES, INC.

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10 October 1991

Ms. Rachel Sater
Beveridge and Diamond, P.C.
Suite 3900
1 Sansome Street
San Francisco, CA 94104

RE: INVESTIGATION OF MWD PORTION OF BOLSA CHICA WITH RESPECT TO
PRIOR-CONVERTED CROPLAND VERSUS FARMED WETLAND STATUS

Dear Ms. Sater:

As you requested, I have conducted an investigation to determine whether the portion of the MWD property at Bolsa Chica technically qualifying as wetlands is subject to the prior-converted cropland provision in the 1990 Corps of Engineers Regulatory Guidance Letter (RGL-90-7 dated 26 September 1990). If so, the area would be considered as nonjurisdictional for purposes of Section 404 of the Clean Water Act of 1977 (as amended).

Background

I conducted a wetland delineation for Signal Landmark, Inc. in 1987 on a tract of approximately 1650 acres known as Bolsa Chica in Orange County, California (Sanders, 1987). An 8.1-acre* portion of a 45.6-acre agricultural field owned by the Metropolitan Water District (MWD) was among the portions of Bolsa Chica concluded to be wetlands. The area was concluded to have wetland hydrology on the basis of a groundwater hydrology study conducted by Mr. Thomas Bilhorn that indicated the water table

* The Koll Company had a consultant digitize the map provided in EPA's final wetland determination report, and found that the portion of the MWD farm field concluded to be wetlands by EPA is 8.1 acres. The same area was delineated as wetland in my report, and the area measured 7.6 acres according to Bilhorn (1987). Regardless of the differences in acreages, the area referred to in this letter is the entirety of wetlands that occur in the MWD farm field, whether 7.6 acres or 8.1 acres. The differences in acreage appear to be due to differences in mensuration methods.

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under normal rainfall conditions rises sufficiently near the soil surface to result in long duration of soil saturation within the upper one foot of the surface (Bilhorn, 1987). However, there was no evidence that the area is inundated periodically (except during the 1983 rainfall year, for which the return frequency exceeded 100 years). The 1983 rainfall year had the second greatest rainfall of the entire period of record. During the period in which the delineation was conducted, the above-referenced tract was being farmed to lima beans.

Standard For Prior-Converted Cropland

According to RGL-90-7 and subsequent guidance provided by the Corps of Engineers, the standard for determining whether an area that technically qualifies as wetlands qualifies as prior-converted cropland has two basic components:

- (1) The area in question must have been farmed prior to 23 December 1985, and must continue to have been farmed (but not necessarily on an annual basis) since 23 December 1985.
- (2) The area in question must not be inundated for 15 days or longer annually under conditions of normal rainfall.

The area in question will continue to be treated as farmed wetlands if either of the above provisions is not met, and the appropriate Section 404 permit would be required for the discharge of dredged or fill material into the area.

1987-1988 Observations

I observed site conditions of the area in question on several occasions during 1987-1988. During that period, I saw no evidence of either current or past inundation or soil saturation in the area. I preliminarily concluded that none of the area qualified as wetlands, but modified the original delineation on the basis of Mr. Bilhorn's hydrologic study indicating that 7.6 acres of the farm field would be expected to have saturated soil in the upper portion of the soil profile due to a water table rising to nearer than 18 inches of the soil surface under conditions of normal rainfall. This modification was considered appropriate on the basis that the delineation of the farm field was made using the Atypical Situation procedures described in the 1987 Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987). Under this procedure, it was appropriate to delineate areas where one or more of the

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parameters could not be characterized due to disturbance on the basis of the other two parameters. The field had been planted to lima beans, which was considered to be a disturbance that prevented characterization of the vegetation of the area. Based on the results of Bilhorn's (1987) groundwater hydrology study and the presence of indicators of hydric soils, I concluded that the 8.1-acre area (see page 1 footnote) would technically qualify as wetlands under conditions of normal rainfall and in the absence of farming activities.

1991 Observations

At the request of Beveridge and Diamond, P.C., I revisited the MWD property on 18 August, 1991. I made the following observations specifically in consideration of whether the 8.1-acre area would qualify as prior-converted cropland as defined by the MOA:

1. The entire field had supported a dense stand of barley during 1991. Although the stand apparently was volunteer, the high density of the barley indicates that the field probably had been planted to barley during 1990. The area recently had been disked and much of the barley was covered by soil. These observations provide onsite evidence that the field (including the portion qualifying as wetlands) has been subject to farming activities during the period following December 23, 1985.
2. Most of the area qualifying as wetlands in 1987 exhibited no evidence of gross wetland characteristics nor recent wetness. Barley had been growing throughout the depression area. The only plant species observed in addition to barley were upland weeds (e. g., Salsola iberica (Russian thistle) and Brassica nigra (mustard)).
3. One small area (36 feet by 15 feet) of Typha latifolia (cattails) was observed on the south margin of the field. Water obviously had stood in the small depression earlier in the year. However, there were no obvious surficial features to account for the presence of cattails. I learned from officials of the Koll Company that a water pipe had burst in the area during the spring, which provided sufficient wetness to allow colonization by the cattails. Although the small depression might continue to support species having an indicator status of FACULTATIVE WETLAND and/or FACULTATIVE in the absence of farming activities, I would not expect the area to continue to exhibit sufficient wetness to support cattails.

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4. There are no significant upland drains entering the property. The Wintersburg Channel borders the field on the east and south sides. The area to the north has been developed as an apartment complex, from which surface runoff is directed into storm sewers. A steep hill bordering the property on the west is the only area available that could provide some surface runoff to the property. However, the absence of surface drains indicates that most water entering the property from the hill occurs as sheet flow. Therefore, the area does not receive significant surface runoff that could pond for long duration in the depressions.

Other Information

In his report of hydrologic conditions of Bolsa Chica, Bilhorn (1986) discussed factors influencing ponding of water on the general area. He concluded that transient ponds remain for less than one week under normal rainfall conditions due to the limited rainfall (approximately 10 inches per year) and the high evapotranspiration rate (approximately 50 inches per year). These transient ponds also were characterized as being very shallow (a maximum of only a few inches in depth). Transient ponds were observed to remain for less than seven days following rainfall events of 2 inches or less. A 2-inch rainfall event exceeds the normal two-year storm event for the area.

Wetland Functions and Values

Although no formal analysis of wetland functions and values has been performed, it is obvious that the wetland portions of the MWD farm field are not providing functions and values normally attributed to wetlands (Adamus et.al, 1987), for the following reasons:

1. Continued farming of the area essentially precludes the presence of vegetation associated with wetlands. The absence of hydrophytic vegetation essentially eliminates the opportunity and effectiveness for the area to provide most of the functions attributed to wetlands, including all wildlife-related functions.
2. The area essentially lacks a watershed, which severely limits the opportunity for the area to provide the floodflow alteration, sediment stabilization, sediment/toxicant retention, and nutrient removal/transformation functions.

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3. The lack of permanent to periodically ponded water for long duration on the property drastically limits the ability of the area to provide most of the above-referenced functions, in addition to the aquatic diversity/abundance and recreation functions.

4. The area provides no fishery-related functions.

5. The absence of a hydrologic outlet precludes the possibility for the area to provide the detritus export function.

6. The fact that the water table does not rise to the soil surface during years of normal rainfall eliminates the possibility for the area to act as a ground water discharge area, while the small size of the area, limited volume of standing water for short duration, and relatively impermeable surface soil layers severely limits the possibility that the area provides significant ground water recharge.

Discussion

The area in question has had a long history of farming. Other evidence to be provided by the Koll Company will establish that the area was farmed regularly for many years prior to December 23, 1985. Examination of historical aerial photography also indicates a long farming history. My onsite observations during the period of 1987 through 1991 indicates that farming of the property has continued on a more or less regular basis since December 23, 1985. Therefore, based on information to be provided by the Koll Company and my personal observations, it is a fact that the area was farmed regularly prior to 1985 and has continued since 1985.

According to my 1987 wetland delineation of the MWD property, the source of wetlands hydrology for the 8.1 acres qualifying as wetlands is a water table that rises to nearer than 18 inches of the soil surface during years of normal rainfall (Sanders, 1987). The area was not delineated as wetlands on the basis of indicators that the area is periodically inundated. In fact, the area would not have been considered as wetlands except for the high water table expected during years of normal rainfall (Bilhorn, 1987). All available data indicate that the area is not inundated for long periods following rainfall events. The primary reasons for the lack of inundation for long duration include the low average annual precipitation rate, high evapotranspiration rate, very limited watershed, and

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absence of upland drains that convey water into the area. Therefore, the areas of MWD that technically qualify as wetlands are not inundated for 15 days or longer during years of normal rainfall.

Due to the extreme modification and use of the area and adjacent areas, wetlands occurring in the MWD farm field are not providing the functions normally attributed to wetlands. Factors affecting the ability of the wetlands to provide the functions normally attributed to wetlands include continued farming activities, a very limited watershed, low rainfall and high evapotranspiration rates, lack of permanently to periodically inundated areas, absence of a hydrologic outlet, a water table that does not rise to the soil surface, and relatively impermeable surface soil layers.

Conclusions

Conclusions of this study are:

1. The 8.1 acres of wetlands in the MWD farm field have been farmed for many years, and have been farmed regularly since December 23, 1985. Therefore, the area meets the first of two essential criteria for an area to qualify as prior-converted cropland.
2. Wetlands of the MWD farm field are not inundated for 15 days or longer during years of normal rainfall. The primary reasons for a failure to meet this criterion are a very limited watershed, low average annual rainfall (10 inches) and high evapotranspiration rates, and permanent alteration of upslope areas. Therefore, the area meets the second essential criterion of the prior-converted cropland provision of the MOA.
3. A general assessment of wetland functions and values indicates that, due to factors identified above, the area is not providing the functions normally attributed to wetlands. The fact that the area is not performing the functions and values normally attributed to wetlands provides evidence that it is prior-converted cropland.
4. Both essential criteria are met for a wetland area to qualify as prior-converted cropland. Moreover, the area does not provide the functions and values normally attributed to wetlands. Therefore, the 8.1-acre portion of the MWD farm field qualifies as prior-converted cropland, and the area should be considered as nonjurisdictional for purposes of Section 404 of the Clean Water Act of 1977 (as amended).

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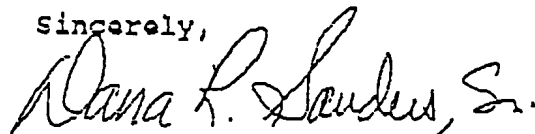
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If you have questions or comments regarding this letter report, please contact me at (601) 885-6135.

Sincerely,



Dana R. Sanders, Sr., Ph.D.
D. R. SANDERS AND ASSOCIATES, INC.