

**ADMINISTRATIVE APPEAL DECISION
CLEAN WATER ACT APPROVED JURISDICTIONAL DETERMINATION
TREASURE HOMES SACA-BILBY AND EASELY PROPERTY SITES
ELK GROVE, CALIFORNIA
ARMY CORPS OF ENGINEERS SACRAMENTO DISTRICT FILE #200400036**

February 14, 2006

Appellant: Treasure Homes

Appellant Representative: Robert Uram, attorney for appellants

Review Officer: Douglas Pomeroy, U.S. Army Corps of Engineers, South Pacific Division, San Francisco, California

District Representatives: Justin Cutler and Dan Martel representing U.S. Army Corps of Engineers, Sacramento District

Authority: Clean Water Act (CWA), Section 404 (33 U.S.C. 1344)

Receipt of Request For Appeal: August 6, 2005

Appeal Meeting and Site Visit Date: October 25, 2005 with follow-up teleconference call on November 22, 2005.

Summary of Decision: The Army Corps of Engineers Sacramento District and the Appellant agreed that portions of the Saca-Bilby property were wetlands within Clean Water Act jurisdiction, but disagreed as to the boundary the area that met the definition of wetland in accordance with the Army Corps of Engineers Wetland Delineation Manual. The Sacramento District's evaluation of the extent of hydrophytic vegetation on the Saca-Bilby property was inconsistent with the requirements of the Army Corps of Engineers Wetland Delineation Manual and the District's administrative record was internally contradictory. The Sacramento District must reconsider its evaluation of the extent of hydrophytic vegetation and wetlands on the Saca-Bilby property as described in detail in this administrative appeal decision and provide the Appellant a Clean Water Act jurisdictional determination based on that reconsideration.

Appeal Evaluation, Findings and Instructions to the Sacramento District Engineer (DE):

Background Information: The Appellant requested Clean Water Act jurisdictional determinations for the approximately 25-acre Saca-Bilby 25 property and approximately 28 acre Easely property, two adjoining properties located approximately 2 miles southwest of the intersection of Elk Grove Boulevard and California State Highway 99 in Elk Grove, California. The Army Corps of Engineers Sacramento District (District) issued an approved Clean Water Act (CWA) jurisdictional determination on February 16, 2005 regarding both properties concluding that the Saca-Bilby 25 property and the Easely property included approximately 12.31 acres of wetlands within jurisdiction. The Appellant disagreed with the District's CWA jurisdictional determination, conducted additional field investigations and submitted an April 15, 2005 report concluding that the Saca-Bilby property contained 0.13 acres of wetlands and the Easely property included 0.50 acres of wetlands within CWA jurisdiction.

The District considered the Appellant's submittal, conducted additional field investigations, and issued a revised CWA jurisdictional determination on June 9, 2005 concluding that the Saca-Bilby property includes approximately 6.16 acres of wetlands and the Easely property includes approximately 0.50 acres of wetlands. The Appellant disagreed with the District's June 9, 2005 jurisdictional determination for the Saca-Bilby property and appealed. The District and the Appellant agree that 0.50 acres of wetlands within CWA jurisdiction are present on the Easely property.

The Appellant asserts that there were flaws in the District's wetland delineation methodology that resulted in the District establishing an incorrect boundary between wetland and upland areas on the Saca-Bilby property. The District's conclusions as documented in the administrative record and the Appellant's reasons for appeal regarding those conclusions are evaluated in this administrative appeal decision.

Reason 1: The District's wetland determination fails to comply with mandatory Army Corps of Engineers' requirements for wetlands delineation and must be set aside.

FINDING: Portions of this reason for appeal had merit.

ACTION: The District must revise its evaluation of the extent of hydrophytic vegetation to be consistent with the requirements of the WDM. The District must complete a reevaluation the vegetation on the property using the WDM Atypical Situations methodology for vegetation. Alternatively, although there was sufficient evidence in the administrative record to support the District's conclusion that an Atypical Situation for vegetation was present, the District may elect to reconsider that conclusion and, if warranted, evaluate the extent of hydrophytic vegetation on the property using WDM Section D Routine Determinations, or WDM Section E Comprehensive Determinations.

DISCUSSION: The District and the Appellant agree that portions of the Saca-Bilby 25 and Easely properties contain wetlands within CWA jurisdiction but disagree on the extent of those wetlands. The District's conclusions regarding the extent of the wetlands, and the Appellant's reasons for objecting to those conclusions, are discussed separately below for hydric soils,

hydrophytic vegetation, and wetland hydrology. The Appellant's reasons for appeal as stated in his Request for Appeal are listed in Attachment I. All the Appellant's reasons for appeal are addressed in the appropriate sections of this appeal decision.

The District is required to identify wetland areas using the definition of wetlands in the Corps regulations (33 Code of Federal Regulations (CFR) 328.3 (b)) which states that:

“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.”

The Corps uses the Army Corps of Engineers Wetland Delineation Manual (WDM) and several associated documents as guidance in identifying wetland areas. The WDM requires that the District evaluate the presence or absence of three parameters – hydric soils, hydrophytic vegetation, and wetland hydrology – to establish whether or not a wetland area is present.

In order to properly evaluate whether a wetland is present, the Corps must establish whether or not “normal circumstances” are present. The WDM provides guidance regarding what should be considered normal circumstances stating that:

“ ‘Normal circumstances’ has been further defined as ‘the soil and hydrologic conditions that are normally present, without regard to whether the vegetation has been removed.’ The determination of whether normal circumstances exist in a disturbed area ‘involves an evaluation of the extent and relative permanence of the physical alteration of wetlands hydrology and hydrophytic vegetation’ and consideration of the ‘purpose and cause of the physical alterations to hydrology and vegetation.’ “

and also states that:

“It is necessary to determine whether alterations to an area have resulted in changes that are now the “normal circumstances.” The relative permanence of the change and whether the area is now functioning as a wetland must be considered.”

The Review Officer confirmed at the appeal meeting that both the District and the Appellant concluded “normal circumstances” for soil and hydrology were present on this site. However the District and the Appellant disagreed regarding the proper interpretation of vegetation and hydrology data for the areas in dispute.

Hydric soils

The District concluded that hydric soils were present in all the areas whose wetland status was in dispute. In the Appellant's *Technical Analysis and Response to New (06/09/05) Delineation by Sacramento District, U.S. Army Corps of Engineers for Saca-Bilby 25 and Easely Properties*, (Appellant's *Technical Analysis*) included with the Request for Appeal (RFA) he concluded:

“...we concur with the overall determination that hydric soils are present and we concur with the approximate extent of these hydric soils in the disputed areas. However, because of the historic alterations to the topography (planing and ditching), the issue is whether the extent of these soils is reflective of the extent of existing wetlands.”

The Appellant agreed with the District’s determination that hydric soils were present in the areas whose wetland status is in dispute.

Hydrophytic vegetation

The District and the Appellant disagree regarding the proper interpretation of vegetative data for the portion of the property where the wetland delineation is in dispute. The District concluded the vegetation in the area in dispute should be considered to represent an “Atypical Situation” as described in the WDM. The Appellant concluded that the vegetation on site represented “Normal Circumstances” and did not require evaluation as an “Atypical Situation.”

The Corps WDM, page 4, states that:

“The manual...describes (Part IV, Section F) [Atypical Situations] methods for delineating wetlands in which the vegetation, soils, and/or hydrology have been altered by recent human activities or natural events.”

The Corps WDM “Atypical Situations” states that:

“Methods described in this section should be used only when a determination has already been made in Section D (Routine Determinations) or Section E (Comprehensive Determinations) that positive indicators of hydrophytic vegetation, hydric soils, and /or wetland hydrology could not be found due to the effects of recent human activities or natural events. This section is applicable to delineations made in the following types of situations: ...unauthorized activities ... natural events,... and man-induced wetlands.

Even though the District did not identify that the vegetation had been altered for one of the three reasons specifically identified in Section F, Atypical Situations (i.e. the alterations were not the result of unauthorized activities, natural events, or man-induced wetlands) the District still concluded that Section F Atypical Situations applied because the vegetation had been altered by recent human activities, in this case disking and/or planting.

The District further explained its conclusion in its May 4, 2005 Note to File that stated:

“In general, urbanizing agricultural fields where the vegetation is managed by annual disking and planting falls within the category of Atypical Sites. ...the removal of existing vegetation by disking and the introduction of selected grasses and attendant weeds does not allow the normal hydrologic sorting of the plant community that would ideally reflect the hydrologic status of the site.”

The District also sought outside technical assistance as to whether the conditions on the property should be considered an “Atypical Situation” with regard to vegetation. By e-mail of April 25,

2005, Dr. James Wakeley of the Corps Engineering Research and Development Center, Environmental Laboratory, Vicksburg, Mississippi, stated that:

“I understand that the site in question is regularly disked and/or planted. If the plant community has been manipulated to such an extent that it no longer reflects the current soils and hydrology on the site, then it no longer meets our [the Corps] definition of “normal circumstances.”...and the Atypical Situations chapter in the Manual should be consulted to determine what plant community would likely grow there in the absence of manipulation. This may be indicated by plant species that emerge early in the growing season (i.e. during the normal wet portion of the growing season) before planted species monopolize the site, or by checking the plant community growing on a nearby undisturbed reference site having similar soils and hydrology.”

The Appellant disagreed and described his position in his *Technical Analysis* stating that:

We concur that the site has been disturbed, that the plant communities have been modified by the historic agricultural uses of the site, and that the composition of the plant communities are not similar to those that would be found in an undisturbed site. However, that does not mean that these currently-existing plant species are any less reliable as indicators of the extent of hydrophytic plant communities. The existing vegetation is reflective of “normal circumstances” for this site as the term is commonly used in assessments of lands such as these, reflecting conversion to agricultural use which long pre-dates the implementation of Section 404 [of the Clean Water Act] regulation.”

The District and the Appellant agreed, and the administrative record supported, the conclusion that there was a long history of agricultural use of the property that predated the CWA. Although the disking in Fall 2004 was part of that ongoing agricultural program, the District concluded that the disking and planting preceding the District’s wetland delineation would alter the vegetative composition of the property sufficiently to make an evaluation of hydrophytic vegetation using WDM Section D (Routine Determination) or Section E (Comprehensive Determination) unreliable. While the Appellant disagreed that use of the WDM “Atypical Situations” procedures for vegetation were necessary, the Appellant did not dispute that disking and planting occurred. The District concluded that removing vegetation from the property by disking, and subsequently planting the property for agricultural purposes, represented an alteration of the vegetation that would render the vegetation of the property insufficiently representative of the existing soils and hydrology conditions to use the methods in Section D or E of the WDM to evaluate the vegetation on the property. This conclusion represented a reasonable application of best professional judgment by the District.

When WDM sections D and E cannot be used for vegetation, and an “Atypical Situation” for vegetation is present, the WDM directs that the District follow the 4 step procedure in WDM Section F, Atypical Situations, Subsection 1 – Vegetation to attempt to determine whether hydrophytic vegetation is present. The WDM procedure for vegetation in the “Atypical Situations” section requires that one of two conclusions be reached. If the vegetation prior to disturbance can be determined, the WDM requires that the vegetation data be evaluated in accordance with the WDM procedures to establish the presence or absence of hydrophytic

vegetation, and requires that the results of that evaluation be used as part of an evaluation of all three wetland parameters – soils, vegetation, and hydrology – to determine the extent of any wetland areas. If the vegetation prior to disturbance cannot be determined, the WDM states that the hydrophytic vegetation parameter cannot be used, and that the wetland delineation must be based on evaluation of the remaining two parameters – hydric soils and wetland hydrology.

The District's application of the WDM, Atypical Situation, Vegetation Methodology (WDM pages 74 – 77) is described and evaluated below:

WDM page 75, Atypical Situation, Subsection 1, Vegetation. Step 1 states:

“Describe the type of alteration.”

The District described the alteration as disking and/or planting in its May 4, 2005 Note to File.

WDM page 75, Atypical Situation, Subsection 1, Vegetation. Step 2 states:

“Describe the effects on vegetation.”

The District described the effects of the alteration on the vegetation in its May 4, 2005 Note to File as:

“...the removal of existing vegetation by disking and introduction of selected grasses and attendant weeds does not allow the normal hydrologic sorting of the plant community that would ideally reflect the hydrologic status of the site.”

WDM page 75, Atypical Situation, Subsection 1, Vegetation. Step 3 states:

“Describe the type of vegetation that previously occurred.”

and that

“If the plant community types that occurred prior to alteration can be determined, record them on DATA FORM 3 and also record the basis used for the determination. PROCEED TO STEP 4. If it is impossible to determine the plant community types that occurred on the area prior to alteration, a determination cannot be made using all three parameters. In such cases, the determination must be based on the other two parameters.”

The District stated in its May 4, 2005 Note to File that:

“Between the vegetation management, disking, haying and planting selected species and attendant weeds we have no confidence the plant community is reflecting the hydrologic condition of the site.

and that

“The site has been managed for many years so there is not record of pre-disturbance species occurrence or abundance.

The District concluded that there was no record of the pre-disturbance plant community occurrence or abundance. The Atypical Procedures for Vegetation in the WDM directs that under those circumstances information on hydrophytic vegetation would not be considered, and the determination of whether a wetland was present would be based the presence or absence of the other two parameters for delineating wetlands – hydric soils and wetland hydrology.

The District, however, concluded it was appropriate to consider vegetative response even though the District had concluded that the existing vegetation represented an Atypical Situation, and did not reflect the hydrologic conditions of the property. The District explained this approach in its May 4, 2005 Note to File that states:

“The atypical procedures allow using the best available information to determine if wetland conditions are present. The type of alteration is removal of plants by harvesting, discing, and planting desired species. Perennials and native species have been removed and are discouraged from establishing populations by management. The site has been managed for many years so there is no record of pre-disturbance species occurrence or abundance. Based on the site conditions we think it is appropriate to evaluate the vegetation response on the site but not use the presence of non-wetland species within the dominating Lo pe [*Lolium perenne*] stands to exclude areas with current hydric soils and observed wetland hydrology.”

The WDM discusses the flexibility in applying the methods described in the WDM as follows:

“Procedures described for both routine and comprehensive wetland determinations have been tested and found to be reliable. However, site-specific conditions may require modification of field procedures. Since specific characteristics (e.g., plant density) of a given plant community may necessitate the use of alternate methods for determining the dominant species, the user has the flexibility to employ sampling procedures other than those described. However, the basic approach for making wetland determinations should not be altered (i.e. determination should be based on the dominant plant species, soil characteristics, and hydrologic characteristics of the area in question). The user should document reasons for using a different characterization procedure than described in the manual.”

While I would always expect the District to use the best information available to delineate a wetland area, the WDM Atypical Situation methodology for vegetation provides a specific methodology and series of steps as to how that evaluation is to occur. The District’s evaluation of the extent hydrophytic vegetation on this property is inconsistent with the requirements of the WDM for determination of the presence of hydrophytic vegetation in Atypical Situations.

The WDM procedures direct that when an Atypical Situation for vegetation is present that the District evaluate whether the plant community types present prior to the disturbance can be determined. If the prior plant communities can be determined, the WDM Atypical Situations

methodology for vegetation then directs that the District determine which plant communities were dominated by hydrophytic vegetation prior to disturbance. Areas dominated by hydrophytic vegetation meet the WDM hydrophytic vegetation parameter of the three parameter approach for determining the presence of wetlands. The WDM allows flexibility in how the determination of the dominance of hydrophytic or non-hydrophytic vegetation is made. But if the vegetation that existed prior to the disturbance can be established, the WDM methodology for vegetation in Atypical Situations requires that the District determine of whether or not that vegetation should be classified as hydrophytic and use the results of that analysis in determining the extent of wetlands present.

If the vegetation present prior to disturbance cannot be established, the WDM directs that the District only use the remaining two parameters of hydric soils and wetland hydrology to complete its wetland delineation. The District's dilemma was that it observed some vegetative characteristics it believed corroborated District information for soils and hydrology regarding the appropriate wetland boundaries, yet the District did not consider the vegetation as sufficiently representative of the soils and hydrology conditions currently present on the property to evaluate the vegetation in accordance with Section D or E of the WDM.

The District's approach to evaluating the presence of hydrophytic vegetation on the property as described in the current administrative record is internally contradictory. The District's administrative record states that "we have no confidence the plant community is reflecting the hydrologic condition of the site" yet the District continued to consider existing vegetation data as part of its delineation of the wetland boundaries.

If the District considered the existing vegetation on the property to reasonably represent normal circumstances present for hydric soils and wetland hydrology, the District should have used WDM procedures in Section D or E to evaluate of the extent of hydrophytic vegetation on the property. Alternatively, if the District concluded it could not reasonably establish that the existing vegetation represented the current conditions for soils and hydrology on the property, the District should have followed the procedures for Atypical Situations for vegetation and attempted to determine what vegetation was present prior to the disturbance. If the District concluded that the vegetation present prior to the disturbance could not be determined, the District should have followed the WDM Atypical Situation methodology for vegetation and based the determination of the extent of wetlands present on evaluation of the remaining two parameters – soils and hydrology.

The District must reconsider its evaluation of vegetation information for the Saca-Bilby property in a manner that is consistent with the WDM. The District previously concluded that the vegetation should be evaluated in accordance with the "Atypical Situations" procedure for vegetation in the WDM, but did not follow the procedure established by the WDM to make such an evaluation. If the District concludes that the plant communities present prior to alteration of the property can be determined, the District must evaluate the extent of hydrophytic vegetation on the property based on those prior conditions. The District must then use this information along with consideration of soils and hydrology to determine, based on the presence of all three parameters necessary to establish that a wetland is present, the extent of wetlands on the property. If the District cannot establish what vegetation was present prior to the human

disturbances that required use of the WDM Atypical Situation, vegetation methodology, then, as required by the WDM, the District must only consider information regarding the extent of hydric soils and wetland hydrology to determine the extent of wetlands on the property.

Wetland Hydrology

The District considered the available information on wetland hydrology sufficient to support its conclusion that wetland hydrology is present on all the areas it identified as wetlands. The Appellant concluded that there was sufficient evidence to establish that wetland hydrology was present only in the smaller area they had identified as wetlands.

The WDM defines “Wetland Hydrology” as follows:

“The term “wetland hydrology” encompasses all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season. Areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic and reducing conditions respectively. Such characteristics are usually present in areas that are inundated or have soils that are saturated to the surface for sufficient duration to develop hydric soils and support vegetation typically adapted for life in periodically anaerobic soil conditions. Hydrology is often the least exact of the parameters, and indicators of wetland hydrology are sometimes difficult to find in the field. However, it is essential to establish that a wetland area is periodically inundated or has saturated soils during the growing season.”

In order to determine whether wetland hydrology was present, the WDM requires the District determine the length of the growing season at the property, as well as determine whether the property was either inundated by surface water or had saturated soil for a sufficient portion of the growing season to establish that the wetland hydrology was present. The District concluded continuous inundation and/or saturation of the soil for a consecutive duration of 5% (19 days) of a 365 day growing season to be evidence of wetland hydrology. The Appellant concluded that only continuous inundation and/or saturation of the soil for a duration of 12.5% (43 consecutive days) of a 336 day growing season between January 17 and December 19) to be evidence of wetland hydrology. With these differences in interpretation of the WDM and associated guidance, the District and the Appellant could arrive at different conclusions as to the extent of wetland hydrology on the property even if they had complete agreement as to the conditions observed during site visits. The District’s and the Appellant’s conclusions are discussed below.

The WDM defines the “growing season” as:

“the portion of the year when the soil temperatures at 19.7 in. below the surface are higher than biologic zero (5° C). ... For ease of determination this period can be approximated by the number of frost-free days.”

The Corps Headquarters Memorandum *Questions & Answers on the 1987 Manual*, issued October 7, 1991, provides further direction regarding determination of the length of the growing season stating that:

“There is some flexibility in the determination of the growing season in the 1987 Manual...The growing season, based on air temperature in the county soil surveys, can be approximated as the period of time between the average date of the first killing frost to average date of the last killing frost, which sometimes does not accurately reflect the period of time when the soil temperatures are higher than biological zero. The source of information may vary, however, the growing season generally is to be determined by the number of killing frost-free days. In certain parts of the country where plant communities in general have become more adapted to regional conditions, local means of determining growing season may be more appropriate and can be used.”

The Corps Headquarters Memorandum *Regional Interpretation of the 1987 Manual* dated February 20, 1992 states that:

“Local procedures on the implementation of the 1987 Manual must be fully consistent with both the 1987 Manual and the Questions and Answers issued 7 October 1991. ...As pointed out in the 7 October 1991 Questions and Answers, there is flexibility in the 1987 Manual which can be applied on a case-by-case basis only. We recognize that the indicators of hydrology in the 1987 Manual are sometimes difficult to demonstrate. However, additional regional indicators must only be used on a case-by-case basis to demonstrate that a particular parameter is met.”

The Corps Headquarters Memorandum *Clarification and Interpretation of the 1987 Manual* dated March 6, 1992 states that:

“...procedures for the identification and delineation of wetlands must be fully consistent with both the 1987 Manual and the Questions and Answers issued 7 October 1991.”

and that:

“Soil temperature regime (i.e., period of the year when soil temperature at 20 inches below the surface is above 5 C) is the primary definition of growing season, but data are rarely available for individual sites. ...For wetland determinations, growing season can be estimated from climatological data given in most SCS county soil surveys. ...Growing season starting and ending dates will generally be determined based on the “28 degrees F or lower” temperature threshold at a frequency of “5 years in 10.”

The District determined length of the growing season using Natural Resources Conservation Service (NRCS), Wetland Delineation (WETS) tables, which apply the 28 degree F criterion to determine the length of the growing season based on data from individual weather stations. The location nearest the property with NRCS WETS table data is the Sacramento Airport station #7630, elevation 20 feet, located approximately 9.5 miles north of the property. The NRCS WETS table for station #7630 identifies the growing season at that location as 365 days and the District concluded that this growing season determination reasonably represented conditions on the Appellant’s property.

The Appellant objected to the District's determination of the length of growing season for several reasons. First the Appellant stated in his *Technical Analysis* that the WDM and the Corps Headquarters Memorandum *Regional Interpretation of the 1987 Manual* dated February 20, 1992 provided for only one method of estimating the growing season, absent site specific data on soil temperatures and that that method is to use climatological data contained in published in NRCS county soil surveys. As discussed in the Corps Headquarters Memorandums above, a District will generally determine the growing season based on the 28 degrees F or lower temperature threshold at a frequency of 5 years in 10, but the District has flexibility as to the data used to determine the length of the growing season. A District can use NRCS county soil survey data to determine the length of the growing season, but other data sources can also be used.

In this instance the District chose to use the NRCS WETS growing season determination based on weather data from the weather station closest to the property site instead of the more generalized growing season estimate from the NRCS county soil survey. Such a choice is a reasonable use of professional judgment provided the location used was a reasonable representation of conditions of the property being evaluated.

While the determination of growing season is based on information collected over a number of years, the District also found, as stated in its May 4, 2005 *Note to File*, that a high percentage of the property had plant cover during the January 21, 2005 site investigation. The District photographs taken during that site visit show moreless continuous vegetation except in ponded areas. The Districts infers from this data that plants had been growing on the site for some time, and that the growing season for this site started well before January 17 in 2004-2005. While not conclusive for the length of growing season in all years, this data corroborates the District's conclusion that the growing season started earlier in year 2004 – 2005 than proposed by the Appellant.

The Appellant asserted if the District did not use NRCS county soil survey data that the District should use data from the Lodi, California NRCS WETS station, located approximately 20 miles south of the property and approximately 10 miles further from the property than the Sacramento Airport WETS station chosen by the District. The Appellant stated that based on the NRCS county soil survey that the growing season on this property would have started January 17, and extended for 336 days until December 19, and that the Lodi WETS station data provided essentially the same results.

The Appellant's property is at the 30 foot elevation level - midway in elevation between the Sacramento WETS station at 20 feet and the Lodi WETS station at 40 feet. The Appellant stated in his *Technical Analysis* that:

“...analyzing data from both WETS stations, we believe the Lodi WETS station is more reflective on our site and virtually duplications our determination of the growing season.”

The Appellant also noted that since the Appellant's property was in an undeveloped area, that temperatures at the Appellant's property could be expected to be lower that otherwise estimated in the NRCS WETS tables.

The Appellant's property was intermediate in elevation between the two weather stations. The similarity between the Lodi WETS growing season estimate and the NRCS county soil survey soil growing season estimate does not establish that the District's determination of the length of the growing season was unreasonable. I find the District's use of NRCS WETS station growing season data from the WETS station nearest the property - the Sacramento Airport NRCS WETS station - to be a reasonable determination and use of professional judgment to estimate of the duration of the growing season for this property. The District's use of a 365-day duration growing season based on the Sacramento Airport NRCS WETS data is reasonable.

The District and the Appellant also disagreed as to what percentage of the growing season wetland hydrology had to be present to meet the WDM requirements. The Corps Headquarters Memorandum *Questions & Answers on the 1987 Manual*, issued October 7, 1991 states that:

“Generally speaking, areas which are seasonally inundated and/or saturated to the surface for more than 12.5% of the growing season are wetlands. Areas saturated to the surface between 5% and 12.5% of the growing season are sometimes wetlands and sometimes uplands. Areas saturated to the surface for less than 5% of the growing season are uplands. ...The length of time an area is wet for hydrology is based on consecutive days during the growing season ...The actual number of days an area is inundated and/or saturated to the surface for an area to be called a wetland varies; the identification of an indicator of recorded or field data is necessary to document that an area meets the wetland hydrology criterion of the 1987 Manual (i.e. the list of hydrology indicators on pages 37 – 41, which are to be used in the preferential order shown;...)”

The administrative record describes the data the District used in determining that wetlands were present on the Appellant's property, including field hydrologic indicators identified in the WDM and as field observations of other characteristics that the District considered in determining the location of the boundary between wetland and upland areas.

The Appellant asserted that the Corps Headquarters Memorandum *Questions & Answers on the 1987 Manual*, issued October 7, 1991 required that the property be inundated or saturated for at least 12.5% of the growing season because that memorandum states:

“The length of time an area is wet for hydrology is based on consecutive days during the growing season. If an area is only saturated to the surface for a period of between 5% and 12.5% of the growing season and no clear indicators of wetland hydrology exist (i.e., recorded or field data; ...) then the vegetation test should be critically reviewed. Specifically, in such cases a vegetative community dominated by FAC (facultative) species would generally indicate that the area is not a wetland (unless the FAC-neutral test was indicative of wetlands).

The Appellant states his conclusion regarding the wetland hydrology standard in his *Technical Analysis* stating that:

“Our position is that with the exception of the 0.63 acres we delineated as wetland, the site is inundated or saturated to the surface less the (sic) 12.5 percent of the growing season and fails the FAC-neutral test so it should not be considered wetland.”

The Appellant stated in his *Technical Analysis* that the District discounted the Corps Headquarters Memorandum *Questions & Answers on the 1987 Manual*, issued October 7, 1991 and also stated that:

“The District analysis contends that the minimum hydrology requirement may be satisfied by inferences from field data that inundation occurred over at least 5% of the growing season and that the FAC-neutral test does not apply. In supporting their use of the 5% standard the District analysis questions the 87 Manual’s use of the 5% standard, alluding to a 2% standard, and seems to dispute the 87 Manual’s requirement for **continuous** duration rather than total amount of inundation. The District also asserts in their 5/4/05 Note to File that a not-yet-adopted but forthcoming “regionalized version of the Manual” will include a stand with a “14 consecutive day duration of inundation and/or saturation during the growing season as a criterion for wetlands.”

The District does discuss possible shortcomings of the WDM in its May 4, 2005 *Note to File* as well as discussing that a proposed regionalized version of the WDM may be developed. However the District’s determination of the extent of wetland hydrology was based on methodology in the WDM, and the District concluded that:

“...the Mar 92 (March 6, 1992) guidance allows for the District to include areas with between 5% ...and 12.5% of the growing season as meeting the duration for wetland hydrology. Additionally, the guidance squarely defers to the observation of field indicators of hydrology to identify when wetland hydrology is present. Based on the observation of inundation, saturation and the development of sediment deposits at various sample points around the site the default to 12.5% hydrologic zone for the minimum seems inappropriate for this site.”

The District’s conclusion that the necessary wetland hydrology to meet the requirement of the WDM is continuous inundation and/or saturation of portions of the property exceeding 5% (19 days) of the 365 growing season is reasonable. However, the District’s administrative record must provide sufficient documentation that such inundation and/or saturation of portions of the property actually occurs. The District relied on a combination of field indicators of wetland hydrology from the WDM to support the District’s conclusion that the 5% standard was met. The District supplemented its observations of field indicators from the WDM, with additional field observations of biological conditions specific to this property. The reasonableness of the District’s conclusions based on observations of these factors is discussed below.

The District summarized its conclusions regarding field indicators of wetland hydrology in its May 4, 2005 *Note to File* stating that:

“The ppt to date total at the time of inspection [District’s January 21, 2005 inspection] was about 150% of normal. So the site had experienced greater than normal ppt and

would be considered relatively wet. However, the observation of areas of ponding and saturation on the 21 Jan 05 site inspection indicate the site had been ponded and saturated for a significant period of time since any water that would have drained off or infiltrated through the surface horizon should have already been removed from the site. Vertisols and vertic integrades in relative depressions or with surface roughness allow ponding and shallow perched water tables along the rooting zone of the grasses. The very low E/T [evapotranspiration] rates in Dec, Jan and Feb allow for prolonged contact. There was a total of 2.77 inches or ppt between 21 Jan and 24 Feb when WSA [Appellant's consultant] visited the site. This is significantly below normal for the time of year when approximately 3.5 inches would be normal. Given the below normal ppt amounts WSA still observed shallow perched water tables and areas of surface ponding. They also observed positive reactions to alpha alpha dipyridyl.... Portions of the site were ponded and/or saturated for long enough to develop reducing conditions. Without actual measurements of the duration of hydrology we can infer with certainty the site was partially ponded and/or saturated from early Jan until late Feb. It is likely the site was partially ponded and/or saturated from late Dec to early to late Mar.”

The WDM lists primary and secondary field indicators of wetland hydrology. The WDM states that any one primary indicator of wetland hydrology can be considered sufficient evidence that wetland hydrology is present. In the absence of a primary indicator, two secondary indicators must be present to conclude that wetland hydrology is present. The District concluded that three primary field indicators of wetland hydrology were present on portions of the property. In decreasing order of reliability - as defined by the WDM – these were: visual observation of inundation, visual observation of soil saturation, and sediment deposits (including algal mats and detritus at some locations). The District also concluded that oxidized rhizospheres - a secondary indicator of wetland hydrology - were present at some locations.

The WDM cautions that seasonal conditions and preceding weather conditions must be considered when using the primary wetland hydrology indicators of site inundation and soil saturation. This is because such conditions can affect these field indicators of wetland hydrology, and excessive reliance on conditions of a particular time period or year may not accurately reflect the extent of wetland hydrology typically found on a property. These considerations also apply to the interpretation of sediment deposits, which occur as a result of inundation of portions of a property. On this property, sediment deposits are periodically removed by disking, and so reflect the inundation of the property that has occurred subsequent to the most recent disking. The District stated in its April 27, 2005 *Note to File* that:

“The sediment deposits generally took the form of silts and clay attached to plant detritus. These features require close examination. They are not a long term record of the site but have occurred since the last episode of discing and cannot be used to assess duration of ponding and/or saturation but are field indicators inferring ponding and/or saturation occurred during the last ppt season.”

Observations to determine wetland hydrology were made by the Appellants on August 20, 2003, and by the District and/or Appellants on January 21, 2005, February 22 and 22, 2005, March 9 and 15, 2005, April 27, 2005, and May 10, 2005. The District and/or Appellants observed that

portions of the property were inundated during the January 21, February 22 and 23, March 9, and March 16 site visits. The District and the Appellant disagreed regarding the extent of wetland hydrology that could be inferred based on the field conditions observed. This disagreement was partially due to the District's and Appellant's differing professional opinions regarding the duration of the growing season, the duration of inundation and/or soil saturation necessary during the growing season to establish wetland hydrology, and the appropriate consideration of how prior precipitation during the year should be taken into account in interpreting field observations of conditions on the property.

The District and the Appellant agree that the precipitation to date as of the District's January 21, 2005 site inspection was approximately 150% of normal (District May 4, 2005 *Note to File*, Appellant April 14, 2005 *Reevaluation of Extent of Wetlands and Waters of the United States Existing on the Saca Bilby and Easely Properties in the City of Elk Grove, California, admin record page 215*). The District's May 4, 2005 *Note to File* explains how the District concluded that the conditions observed on January 21, 2005 represented typical conditions for the property stating that:

“The monthly ppt amounts are used to estimate the relative departure from normal patterns for any given month. At the time of the Jan05 site inspection the site had received about 75% of the total normal ppt for the year but was well above (3 or 4 inches?) the normal to date ppt amount. The months of Nov and Jan were at the higher ends of the normal range while the month of Dec was well over normal range and would be considered a wet month. On the Jan05 site visit there was virtually no ppt for 9 days prior to the inspection and seasonally normal ppt amounts for 3 weeks prior to the inspection. Given the amount of time between abnormally large ppt. events at the end of Dec04 and the date of the site inspection, observations of ponding or saturated soils would reflect the normal water holding capacity of impermeable clay soils, lack of E/T [evapotranspiration] and lack of surface drainage on flat soils with surface roughness.”

and that

“The site inspection on 21Jan05 was preceded by 9 days with virtually no ppt and 3.22 inches in the 21 days preceding the inspection. ...At the time of the jan05 site inspection the ppt totals for the year was around 75% of normal. The ppt to date total at the time of inspection was about 150% of normal. So the site had experienced greater than normal ppt and would be considered relatively wet. However, the observation of areas of ponding and saturation on the 21Jan05 site inspection indicate the site had been ponded and saturated for a significant period of time since any water that would have drained off or infiltrated through the surface horizons should have already been removed from the site. ...There was a total of 2.77 inches of ppt between 21Jan and 24 Feb when WSA [Appellant's consultant] visited the site. This is significantly below normal for the time of year when approximately 3.5 inches would be normal. Given the below normal ppt amounts WSA still observed shallow perched water tables and areas of surface ponding.”

The District's determination that conditions on the property represented evidence of wetland hydrology was reasonable. The District took into account the soils, normal precipitation,

precipitation observed in this particular year, and site topography in reaching this determination. Although higher than normal precipitation had occurred prior to the site visit, the District concluded that sufficient time (9 days) had elapsed to allow excess water to either drain from or infiltrate into the property, and so represented typical January conditions for the property.

The District's evaluation supports the conclusion that portions of this property would be inundated for portions of December, January, and February in a typical year. As is typical of most wetland delineations, neither the District nor the Appellant conducted daily observations of inundation and/or soil saturation at the property. However, the District reasonably concluded that inundation would typically occur for a period of 19 or more days during the 365 day growing season, and this conclusion was supported by the District's observations of ponding on the property in January, February, and March 2005.

The District's administrative record provides additional evidence to support this conclusion. The District identified sediment deposits – a primary indicator of wetland hydrology according to the WDM – at 17 of 18 sample points the District concluded were wetland areas. Although the District and the Appellant agreed that the presence of sediment deposits cannot be used to establish the duration of ponding in this relatively flat landscape, their presence does support the conclusion that inundation and ponding occurred. The District also observed oxidized rhizospheres, a secondary indicator of wetland hydrology identified in the WDM, at some of the sample locations the District determined to be wetland areas during its April 24 and May 10, 2005 site investigations. The District's administrative record provided sufficient documentation based the observations of inundation and/or soil saturation, sediment deposits, and oxidized rhizospheres, to support the District's conclusion that wetland hydrology was present in the areas of the Saca-Bilby property the District identified as wetlands.

As described under *Hydrophytic Vegetation* above, the District reasonably concluded that the vegetation on the property did not represent the existing normal circumstances for hydric soils and the wetland hydrology for the property, because of the agricultural activities on the property, including recent disking. Because of these alterations, the District determined that the existing vegetation was not a reliable indicator of whether hydrophytic vegetation was present and that the FAC-Neutral vegetation test for wetland hydrology could not be considered reliable.

If the District concludes that it can use vegetation data as part of a three parameter evaluation of the extent of wetlands on this property, the District may reconsider whether the FAC-Neutral test can appropriately be used to evaluate wetland hydrology on the property. However, the FAC Neutral test is listed in the WDM as a secondary indicator of wetland hydrology and the District has based its conclusions that wetland hydrology was present on three WDM primary indicators of wetland hydrology. The WDM states that its primary indicators of wetland hydrology should be considered more reliable than its secondary indicators of wetland hydrology.

Federal Court Decisions cited by the Appellant in his Request for Appeal

The Appellant's Request for Appeal identified several reasons (see attachment 1) as to why the District's wetland delineation was flawed. The Appellant's reasons asserted that the District's delineation was inconsistent with the Corps regulations and associated policies and guidance, and that the District had not followed the appropriate procedures in the WDM. These issues


were evaluated above. The Appellant also cited federal district court decisions in support of his conclusions.

The Appellant first notes that the Corps has the burden of demonstrating the existence of wetlands in an enforcement action. Such a proposition does not appear to be in dispute. In fact, the foregoing discussion addresses at some length the question of whether the District's wetland's delineation determination in this matter has been reasonable. The Appellant also cites three cases to support the assertion that pursuant to Corps policy, all jurisdictional wetlands delineations must be supported by wetlands indicators for all three diagnostic environmental indicators (soils, vegetation and hydrology). The cited cases are not controlling legal authority in the 9th Circuit. Moreover, the cases relied on by the Appellant are fact driven and fact dependent scenarios that have no particular application beyond their own limited circumstances. In fact, as noted in the foregoing analysis, the WDM specifically directs that under certain circumstances, the Corps should use only soils and hydrology to complete its wetland delineation. Therefore, the Corps is certainly not required to utilize soils, vegetation and hydrology in all cases. As such, I did not consider the legal authority cited by Appellant to be germane to the evaluation of this administrative appeal.

Information Received and its Disposition During the Appeal Review:

This administrative appeal was reviewed based on the Appellant's Request for Appeal and the District's administrative record. The review officer conducted an administrative appeal meeting on October 25, 2005, and held a followup administrative appeal meeting teleconference call on November 22, 2005, to obtain additional information from a District representative not available to attend the October 25, 2005 appeal meeting. The review officer provided summaries of these discussions to the District and Appellant. The Appellant submitted addendums to the Review Officer summaries of both discussions, The Appellant's addendums were consistent with the summaries prepared by the Review Officer, but were more detailed.

Conclusion: The Sacramento District's evaluation of the extent of hydrophytic vegetation on the Saca-Bilby property was inconsistent with the requirements of the Army Corps of Engineers Wetland Delineation Manual and the District's administrative record was internally contradictory. The Sacramento District must reconsider its evaluation of the extent of hydrophytic vegetation and wetlands on the Saca-Bilby property as described in detail in this administrative appeal decision.


Joseph Schroedel
Brigadier General, U. S Army
Commanding

Attachment I

Appellant's Reasons for Appeal as stated beginning on page 5 of his Request for Appeal submitted August 6, 2006. All these reasons for appeal are addressed in the administrative appeal decision.

The District's Determination fails to comply with mandatory Corps of Engineers' Requirements for Wetland Delineation and must be set aside.

- A. The District's determination of "wetlands" was based on analysis which is not consistent with the Corps' regulations and established policies for the proper characterization of "wetlands".
- B. The District delineation improperly concludes that the property should be treated as atypical
- C. Even assuming that the Wetland Delineation Manual's provisions for atypical sites apply, the District delineation did not follow the procedures in the manual for atypical sites.
- D. The District delineation improperly rejected the use of the FAC Neutral Test and improperly set an inundation duration standard of five percent.
- E. The District's analysis failed to accurately consider above normal rainfall conditions preceding the District's site inspections.