



MEMORANDUM

TO: Tom Adams
FROM: Michael Johnson, Mehagan Hopkins
DATE: August 28, 2009
SUBJECT: Overview of Potential Impacts to Wetlands and Waters of the U.S.

This memo is intended to summarize potential impacts to wetlands and Waters of the U.S. pursuant to Section 404 of the Clean Water Act.

By way of background, Kleinfelder prepared a Revised Draft Preliminary Jurisdictional Wetland Delineation, dated March 27, 2009¹ ("Revised Delineation"). The Revised Draft Delineation included an evaluation of approximately 0.3 acres of potential jurisdictional features not delineated in the Preliminary Draft Jurisdictional Wetland Delineation, dated January 18, 2007.

The Revised Delineation will be finalized and submitted to the U.S. Army Corps of Engineers (Corps) in September of 2009; it will be made available to Sonoma County PRMD (County) and ENTRIX on the same date of the application submittal.

Three categories of jurisdictional features were identified in the Revised Delineation: wetlands, linear drainage features and jurisdictional crossings. Wetlands were identified based on vegetation, soils and hydrology and are located within vineyard boundaries. Linear drainage features were identified based on the presence of an ordinary high water mark and are located within vineyard boundaries. Crossings are locations where a stream crosses a project road. Jurisdictional crossings were identified based on the presence of an ordinary high water mark and are located at roads which will be upgraded or maintained to allow for access to the vineyard areas. Linear drainage features and crossings are identified as separate categories based on the location of and the types of potential impacts to these features. Impacts to crossings generally consist of upgrading existing culverts or installing new culverts, and as such may be covered under Section 404(f) exemptions for constructing and maintaining farm, forest, or mining roads. Potential impacts to linear drainage features were originally expected to be more extensive and included removal of the feature for farming over; however, as discussed below the linear features are now expected to be avoided with a limited number of rock road crossings and installation of underground infrastructure, i.e., irrigation collection and distribution lines.

¹ Update to the Preliminary Jurisdictional Wetland Delineation dated Jan. 18, 2007.



The project description has recently been revised to avoid the filling and farming over of Class 3 / linear drainage features within the proposed vineyard footprints resulting in the impacts to these features being reduced to a limited number of rocked road crossings and the installation of subsurface water collection and irrigation infrastructure in specific areas. The proposed reduced amount of fill is currently being calculated based on the revised vineyard footprint. Accordingly, the Corps and California Dept. of Fish and Game (Fish and Game) permit applications will provide information on the proposed impacts to jurisdictional features; this information will be provided to both the County and ENTRIX in September 2009.

The total delineated area of each of the three features by type is summarized below:

Summary of Delineated Features by Type

| TYPE OF FEATURE | AREA (ACRES) |
|--------------------------------|---------------------|
| Linear Drainage Features | |
| Perennial | 0.215 |
| Seasonal | 2.393 |
| Subtotal (WoUS): | 2.608 |
| Crossings * | |
| Unique Subtotal (WoUS): | 2.080 |
| Wetland Features | |
| Perennial Wetlands | 0.605 |
| Freshwater Seep/Spring | 0.112 |
| Seasonal Wetland | 1.125 |
| Wet-Meadow | 0.129 |
| Swale | 0.026 |
| Subtotal (wetlands): | 1.997 |
| TOTAL: | 6.685 |

PLEASE NOTE:

- Portions of the crossings were also delineated as Linear Drainage Features due to some roads being located within proposed vineyard footprints. Only the acreages which are independent of the delineated linear drainage features are listed here.
- The Table above reflects recent field reviews in August 2009 of Class 3 / linear drainage features involving bed, bank and channel located within the proposed vineyard blocks.
- The final impact areas are expected to be less than the final total acreage area of jurisdictional features presented above due to project avoidance of linear features and specific wetland features. This information will be provided in the Revised Delineation in September of 2009.