

SECTION V. RESULTS

This section discusses the jurisdictional waters determinations based on data gathered in the field during the wetland delineation, and provides a summary table of those results.

CORPS JURISDICTIONAL WATERS DETERMINATION

This section provides a discussion of the findings of the wetland delineation and presents the Corps jurisdictional determinations of waters of the U.S., including wetlands, currently present at the Lyons Canyon Ranch project site. The results are based on, and supported by, findings at each surveyed data point for each of the three wetland criteria, as described above in the previous section and as required by Corps wetland delineation manual.

Table 3, Lyons Canyon Ranch Surveyed Data Points and Wetland Delineation Determinations, is a summary table of all determinations made for 234 sampling plots that have been surveyed at the project site. Table 3 provides the plot number, the determinations for all three wetland criteria (vegetation, hydrology, and soils), and the jurisdictional status assigned to each plot based on those wetland criteria determinations.

It should be noted that the Lyons Canyon project site has been determined to be in an Atypical Situation (Engineering Laboratory 1987) for determining wetlands as a result of the October 2003 Simi Wildfire, which has significantly altered the vegetation onsite. In addition, several locations have been altered due to grading activities, which has altered not only the vegetation onsite, but may have buried positive indicators hydric soils as well.

Initially, all data were collected in the field by determining the presence (or absence) for all three wetland parameters. However, since much of the Lyons Canyon Ranch project site has been determined to be an Atypical Situation, not all three wetland criteria need be met at specific data points to be considered a wetland. Therefore, once the data could be analyzed in the lab, and photographic interpretation could be conducted, the results of the Atypical Situation analysis could then be presented.

Table 3 presents all Atypical Situation wetland delineation results determined by the collected field data and by the Atypical Situation investigations, which were conducted according to the *Corps of Engineers Wetlands Delineation Manual* (Engineering Laboratory 1987). The Corps Wetland Delineation Manual Data Form 3 for Atypical Situations is provided as Appendix C at the end of this report, which indicates the plots for which the vegetation determination changed as a result of the Atypical Situation analysis.

The total length of Corps jurisdictional watercourses is approximately 33,834.2 linear feet (28,723.8 linear feet outside of jurisdictional wetlands). The total Corps jurisdictional waters and wetlands area onsite is approximately 9.10 acres, including approximately 4.35 acres of Corps jurisdictional waters of the U.S. and approximately 4.75 acres of Corps jurisdictional wetlands. Figure 4, Lyons Canyon Ranch Corps Jurisdictional Waters of the U.S., Including Wetlands, illustrates the Corps jurisdictional area and wetland plots determined from the field wetland delineation surveys conducted onsite, and by aerial photographic interpretation.

The Corps jurisdictional waters of the U.S. were calculated by measuring the stream lengths (of all drainages onsite) outside of jurisdictional wetlands by an average width of 6.7 feet for a total area of 4.35 acres. Stream channel widths were obtained by periodic onsite field measurements of channel widths along representative reaches of each drainage type (bottomland channels and headwaters drainages).

Appendix B, Wetland Delineation Maps, includes large-scale maps of the surveyed wetland delineation plots.



Corps Jurisdictional Waters of the U.S.

For the purpose of this project, areas of waters of the U.S. under Corps jurisdiction include the bed and banks of Lyon Canyon Creek and its unnamed tributaries and associated wetlands. Table 3 shows that of the 234 plots surveyed, 123 plots (53%) are determined to satisfy criteria as Corps jurisdictional waters of the U.S. These 123 survey plots have at least positive indicators of wetland hydrology.

Of the 33,834.2 total linear feet of Corps jurisdictional watercourses, approximately 28,723.8 linear feet of the waters are within Corps jurisdictional wetlands. From these linear feet calculations, an average width (based on periodic stream width measurements) of 6.7 feet was used to calculate the area of Corps jurisdictional waters of the U.S. existing onsite.

Table 3. Lyons Canyon Ranch Surveyed Data Points and Wetland Delineation Determinations

Transect ⁵	Plot	Determinations					
		<i>Vegetation</i>	<i>Hydrology</i>	<i>Soils</i>	<i>Waters of U.S.</i>	<i>Wetland</i>	<i>CDFG</i>
A	1	No	Yes	Yes	Yes	No	Yes
A	2	No	No	No	No	No	No
B	1	No	Yes	Yes	Yes	No	Yes
B	2	No	Yes	Yes	Yes	No	Yes
B	3	No	No	No	No	No	No
C	1	Yes	No	No	No	No	Yes
C	2	No	Yes	No	Yes	No	Yes
C	3	No	No	No	No	No	No
D	1	Yes	Yes	Yes	Yes	Yes	Yes
D	2	Yes	Yes	Yes	Yes	Yes	Yes
D	3	Yes	Yes	Yes	Yes	Yes	Yes
D	4	Yes	Yes	Yes	Yes	Yes	Yes
E	1	Yes	Yes	Yes	Yes	Yes	Yes
E	2	Yes	Yes	Yes	Yes	Yes	Yes
E	3	Yes	Yes	Yes	Yes	Yes	Yes
E	4	Yes	No	No	No	No	Yes
F	1	Yes	No	No	No	No	Yes
F	2	Yes	No	No	No	No	Yes
F	3	No	Yes	Yes	Yes	No	Yes
F	4	Yes	Yes	Yes	Yes	Yes	Yes
F	5	No	No	No	No	No	No
G	1	No	No	No	No	No	No
G	2	Yes	No	No	No	No	Yes
G	3	Yes	Yes	Yes	Yes	Yes	Yes
G	4	Yes	Yes	Yes	Yes	Yes	Yes
G	5	Yes	No	No	No	No	Yes
G	6	Yes	Yes	Yes	Yes	Yes	Yes
G	7	No	No	No	No	No	No
H	1	Yes	Yes	Yes	Yes	No	Yes
H	2	Yes	Yes	Yes	Yes	Yes	Yes
H	3	Yes	No	No	No	No	Yes
H	4	Yes	Yes	Yes	Yes	Yes	Yes
H	5	Yes	Yes	Yes	Yes	Yes	Yes
H	6	Yes	Yes	Yes	Yes	Yes	Yes
H	7	No	No	No	No	No	No
H	8	No	No	Yes	No	No	Yes
H	9	Yes	No	No	No	No	Yes

⁵ Note: Transect letter designations were intended to be alphabetically sequential; however, the sequence skips AA through AZ after Transect Z and jumps to Transect BA. No transect data are missing.



Transect ⁵	Plot	Wetland Parameter			Determinations		
		Vegetation	Hydrology	Soils	Waters of U.S.	Wetland	CDFG
H	10	No	No	No	No	No	No
I	1	No	No	No	No	No	No
I	2	No	No	No	No	No	No
I	3	Yes	Yes	Yes	Yes	Yes	Yes
I	4	Yes	Yes	Yes	Yes	Yes	Yes
I	5	Yes	Yes	Yes	Yes	Yes	Yes
I	6	Yes	Yes	Yes	Yes	Yes	Yes
I	7	Yes	No	No	No	No	Yes
I	8	Yes	No	No	No	No	Yes
I	9	Yes	Yes	Yes	Yes	Yes	Yes
I	10	Yes	No	No	No	No	Yes
I	11	No	No	No	No	No	No
J	1	No	No	No	No	No	No
J	2	No	No	No	No	No	No
J	3	Yes	No	No	No	No	Yes
J	4	Yes	Yes	Yes	Yes	Yes	Yes
J	5	Yes	Yes	Yes	Yes	Yes	Yes
J	6	Yes	Yes	Yes	Yes	Yes	Yes
J	7	Yes	Yes	Yes	Yes	Yes	Yes
J	8	Yes	Yes	No	Yes	No	Yes
J	9	Yes	Yes	No	Yes	No	Yes
J	10	Yes	No	No	No	No	Yes
K	1	No	No	No	No	No	No
K	2	No	No	No	No	No	No
K	3	Yes	Yes	Yes	Yes	Yes	Yes
K	4	Yes	Yes	Yes	Yes	Yes	Yes
K	5	Yes	Yes	Yes	Yes	Yes	Yes
K	6	Yes	Yes	No	Yes	No	Yes
K	7	No	No	No	No	No	No
K	8	No	No	No	No	No	No
L	1	No	No	No	No	No	No
L	2	Yes	No	No	No	No	Yes
L	3	No	No	No	No	No	No
L	4	No	No	No	No	No	No
L	5	Yes	Yes	Yes	Yes	Yes	Yes
L	6	No	No	No	No	No	No
M	1	No	No	No	No	No	No
M	2	Yes	Yes	Yes	Yes	Yes	Yes
M	3	Yes	Yes	Yes	Yes	Yes	Yes
M	4	Yes	No	No	No	No	Yes
M	5	No	No	No	No	No	No
N	1	No	No	No	No	No	No
N	2	No	No	No	No	No	No
N	3	No	Yes	Yes	Yes	No	Yes
N	4	No	No	No	No	No	No
N	5	No	No	No	No	No	No
O	1	No	No	No	No	No	No
O	2	Yes	Yes	Yes	Yes	Yes	Yes
O	3	No	No	No	No	No	No
O	4	Yes	Yes	Yes	Yes	Yes	Yes
O	5	Yes	No	No	No	No	Yes
P	1	No	No	No	No	No	No
P	2	Yes	Yes	Yes	Yes	Yes	Yes
P	3	No	Yes	Yes	Yes	No	Yes
P	4	Yes	No	No	No	No	Yes



Transect ⁵	Plot	Wetland Parameter			Determinations		
		Vegetation	Hydrology	Soils	Waters of U.S.	Wetland	CDFG
Q	1	No	No	No	No	No	No
Q	2	Yes	Yes	No	Yes	No	Yes
Q	3	Yes	Yes	Yes	Yes	Yes	Yes
Q	4	No	Yes	Yes	Yes	No	Yes
R	1	No	No	Yes	No	No	Yes
R	2	No	Yes	Yes	Yes	No	Yes
R	3	No	No	Yes	No	No	Yes
R	4	No	No	Yes	No	No	Yes
R	5	No	No	No	No	No	No
R	6	No	No	No	No	No	No
S	1	Yes	Yes	Yes	Yes	Yes	Yes
S	2	Yes	Yes	Yes	Yes	Yes	Yes
S	3	Yes	Yes	Yes	Yes	Yes	Yes
T	1	No	Yes	No	Yes	No	Yes
T	2	Yes	Yes	No	Yes	Yes	Yes
T	3	No	Yes	Yes	Yes	No	Yes
U	1	No	Yes	No	Yes	No	Yes
U	2	No	Yes	No	Yes	No	Yes
U	3	No	Yes	No	Yes	No	Yes
U	4	No	No	No	No	No	No
V	1	No	No	Yes	No	No	Yes
V	2	No	Yes	No	Yes	No	Yes
V	3	No	No	Yes	No	No	Yes
W	1	No	Yes	Yes	Yes	No	Yes
W	2	Yes	Yes	Yes	Yes	Yes	Yes
W	3	Yes	Yes	Yes	Yes	Yes	Yes
W	4	No	No	Yes	No	No	Yes
X	1	No	No	Yes	No	No	Yes
X	2	Yes	Yes	Yes	Yes	Yes	Yes
X	3	No	No	No	No	No	No
Y	1	No	No	Yes	No	No	Yes
Y	2	No	Yes	No	Yes	No	Yes
Y	3	No	No	No	No	No	No
Z	1	No	Yes	No	Yes	No	Yes
Z	2	No	Yes	No	Yes	No	Yes
Z	3	No	Yes	No	Yes	No	Yes
BA	1	No	No	Yes	No	No	Yes
BA	2	No	Yes	Yes	Yes	No	Yes
BA	3	No	No	Yes	No	No	Yes
BB	1	No	Yes	No	Yes	No	Yes
BB	2	Yes	Yes	Yes	Yes	Yes	Yes
BB	3	Yes	Yes	Yes	Yes	Yes	Yes
BB	4	Yes	No	No	No	No	Yes
BC	1	No	No	No	No	No	No
BC	2	Yes	Yes	Yes	Yes	Yes	Yes
BC	3	Yes	Yes	Yes	Yes	Yes	Yes
BD	1	No	No	No	No	No	No
BD	2	Yes	Yes	Yes	Yes	Yes	Yes
BD	3	Yes	Yes	Yes	Yes	Yes	Yes
BD	4	Yes	Yes	Yes	Yes	Yes	Yes
BE	1	No	Yes	No	Yes	No	Yes
BE	2	Yes	Yes	Yes	Yes	Yes	Yes
BE	3	No	Yes	No	Yes	No	Yes
BF	1	No	No	No	No	No	No
BF	2	Yes	Yes	No	Yes	No	Yes



Transect ⁵	Plot	Wetland Parameter			Determinations		
		Vegetation	Hydrology	Soils	Waters of U.S.	Wetland	CDFG
BF	3	Yes	Yes	No	Yes	No	Yes
BG	1	No	No	No	No	No	No
BG	2	Yes	Yes	No	Yes	No	Yes
BG	3	No	Yes	No	Yes	No	Yes
BG	4	No	No	No	No	No	No
BH	1	Yes	Yes	Yes	Yes	Yes	Yes
BH	2	Yes	Yes	Yes	Yes	Yes	Yes
BH	3	No	Yes	Yes	Yes	No	Yes
BI	1	No	Yes	Yes	Yes	No	Yes
BI	2	Yes	Yes	Yes	Yes	Yes	Yes
BI	3	Yes	Yes	Yes	Yes	Yes	Yes
BI	4	No	No	Yes	No	No	Yes
BJ	1	No	No	No	No	No	No
BJ	2	Yes	Yes	Yes	Yes	Yes	Yes
BJ	3	No	Yes	Yes	Yes	No	Yes
BK	1	No	Yes	Yes	Yes	No	Yes
BK	2	No	Yes	No	Yes	No	Yes
BK	3	No	Yes	No	Yes	No	Yes
BL	1	No	Yes	No	Yes	No	Yes
BL	2	Yes	Yes	Yes	Yes	Yes	Yes
BL	3	No	Yes	No	Yes	No	Yes
BM	1	Yes	Yes	No	Yes	No	Yes
BM	2	Yes	Yes	Yes	Yes	Yes	Yes
BM	3	No	Yes	No	Yes	No	Yes
BN	1	No	Yes	No	Yes	No	Yes
BN	2	No	Yes	No	Yes	No	Yes
BN	3	No	Yes	No	Yes	No	Yes
BO	1	No	No	No	No	No	No
BO	2	No	Yes	No	Yes	No	Yes
BO	3	No	Yes	No	Yes	No	Yes
BO	4	No	No	No	No	No	No
BP	1	No	Yes	No	Yes	No	Yes
BP	2	No	Yes	No	Yes	No	Yes
BP	3	No	Yes	No	Yes	No	Yes
BQ	1	No	No	No	No	No	No
BQ	2	No	Yes	No	Yes	No	Yes
BQ	3	No	Yes	No	Yes	No	Yes
BR	1	No	No	No	No	No	No
BR	2	Yes	Yes	Yes	Yes	Yes	Yes
BR	3	Yes	Yes	No	Yes	No	Yes
BR	4	No	No	No	No	No	No
BS	1	No	No	No	No	No	No
BS	2	Yes	Yes	No	Yes	No	Yes
BS	3	Yes	Yes	Yes	Yes	Yes	Yes
BS	4	Yes	Yes	Yes	Yes	Yes	Yes
BS	5	Yes	No	No	No	No	Yes
BS	6	Yes	No	No	No	No	Yes
BS	7	Yes	No	Yes	No	No	Yes
BS	8	No	No	Yes	No	No	Yes
BS	9	No	No	No	No	No	No
BT	1	No	No	No	No	No	No
BT	2	Yes	Yes	Yes	Yes	Yes	Yes
BT	3	Yes	No	Yes	No	No	Yes
BT	4	No	No	No	No	No	No
BT	5	No	No	Yes	No	No	Yes



Transect ⁵	Plot	Wetland Parameter			Determinations		
		Vegetation	Hydrology	Soils	Waters of U.S.	Wetland	CDFG
BT	6	No	No	Yes	No	No	Yes
BU	1	No	No	No	No	No	No
BU	2	No	Yes	No	Yes	No	Yes
BU	3	No	Yes	No	Yes	No	Yes
BU	4	No	No	Yes	No	No	Yes
BV	1	No	No	No	No	No	No
BV	2	No	No	No	No	No	No
BV	3	No	Yes	Yes	Yes	No	Yes
BV	4	No	No	No	No	No	No
BW	1	No	No	No	No	No	No
BW	2	No	Yes	No	Yes	No	Yes
BW	3	No	No	Yes	No	No	Yes
BW	4	No	No	No	No	No	No
BX	1	No	No	No	No	No	No
BZ	1	No	No	No	No	No	No
BZ	2	Yes	Yes	Yes	Yes	Yes	Yes
BZ	3	Yes	Yes	Yes	Yes	Yes	Yes
BZ	4	No	No	No	No	No	No
CA	1	Yes	No	No	No	No	Yes
CB	1	No	No	No	No	No	No
CB	2	No	No	No	No	No	No
CB	3	No	No	No	No	No	No
CB	4	No	No	No	No	No	No
CC	1	No	No	No	No	No	No
CC	2	No	Yes	No	Yes	No	Yes
CC	3	No	No	No	No	No	No
CC	4	No	No	No	No	No	No
CD	1	No	No	No	No	No	No
CD	2	No	Yes	No	Yes	No	Yes
CD	3	No	No	No	No	No	No
CD	4	No	No	No	No	No	No
CD	5	No	No	No	No	No	No

The total area of Corps jurisdictional waters of the U.S. (excluding jurisdictional wetlands) at the Lyons Canyon Ranch project site is approximately 7.89 acres. Figure 4 shows the 123 plots (out of the 234 plots surveyed onsite) determined to be Corps jurisdictional waters of the U.S., including wetlands.

Corps Jurisdictional Wetlands

Table 3 (above) shows that of the 234 plots surveyed, 123 plots (53%) satisfy criteria as Corps jurisdictional waters of the U.S., including wetlands. Therefore, of those 123 plots determined to be jurisdictional waters of the U.S., 62 plots satisfy criteria for *Corps jurisdictional wetlands*, pursuant to Section 404 of the Clean Water Act. These 62 plots determined to be wetlands make up 26% of the total 234 plots surveyed, and make up 50% of the 123 plots determined to be waters of the U.S. Figure 4 illustrates the Corps jurisdictional waters and wetlands area, and indicates the 62 plots that satisfy criteria as Corps jurisdictional wetlands. These 62 plots have positive indicators for all three wetland criteria: areas dominated by hydrophytic vegetation, showing positive indicators of wetland hydrology, and exhibiting evidence of hydric soil conditions. The total area of Corps jurisdictional wetlands, as supported by the findings at those 62 wetland delineation plots, is approximately 4.75 acres.

CDFG JURISDICTIONAL WETLANDS AND RIPARIAN HABITATS

Total area of CDFG jurisdictional wetlands and riparian habitats at the Lyons Canyon Ranch project site is approximately 15.51 acres. Of the 33,814.9 linear feet of stream channels onsite, approximately 19,343.4 linear feet lack riparian vegetation. Figure 5, Map of the CDFG Jurisdictional Riparian Habitat Area at Lyons Canyon Ranch, shows the delineated boundaries of CDFG jurisdictional wetlands and riparian habitats as determined by field surveys and observations and aerial photograph interpretation. Figure 5 includes all delineation plots used to determine CDFG jurisdiction, which are based on the plots used to determine Corps jurisdiction.

Table 3 (above) shows that in many instances at least one of the three wetland criteria were satisfied as required for wetland status under CDFG jurisdiction. These findings support the presence of the CDFG jurisdictional wetlands and riparian habitats at Lyons Canyon Ranch.

Appendix B, Wetland Delineation Maps, shows large-scale maps of the surveyed wetland delineation plots.

Figure 4. Lyons Canyon Ranch Corps Jurisdictional Waters of the U.S., Including Wetlands

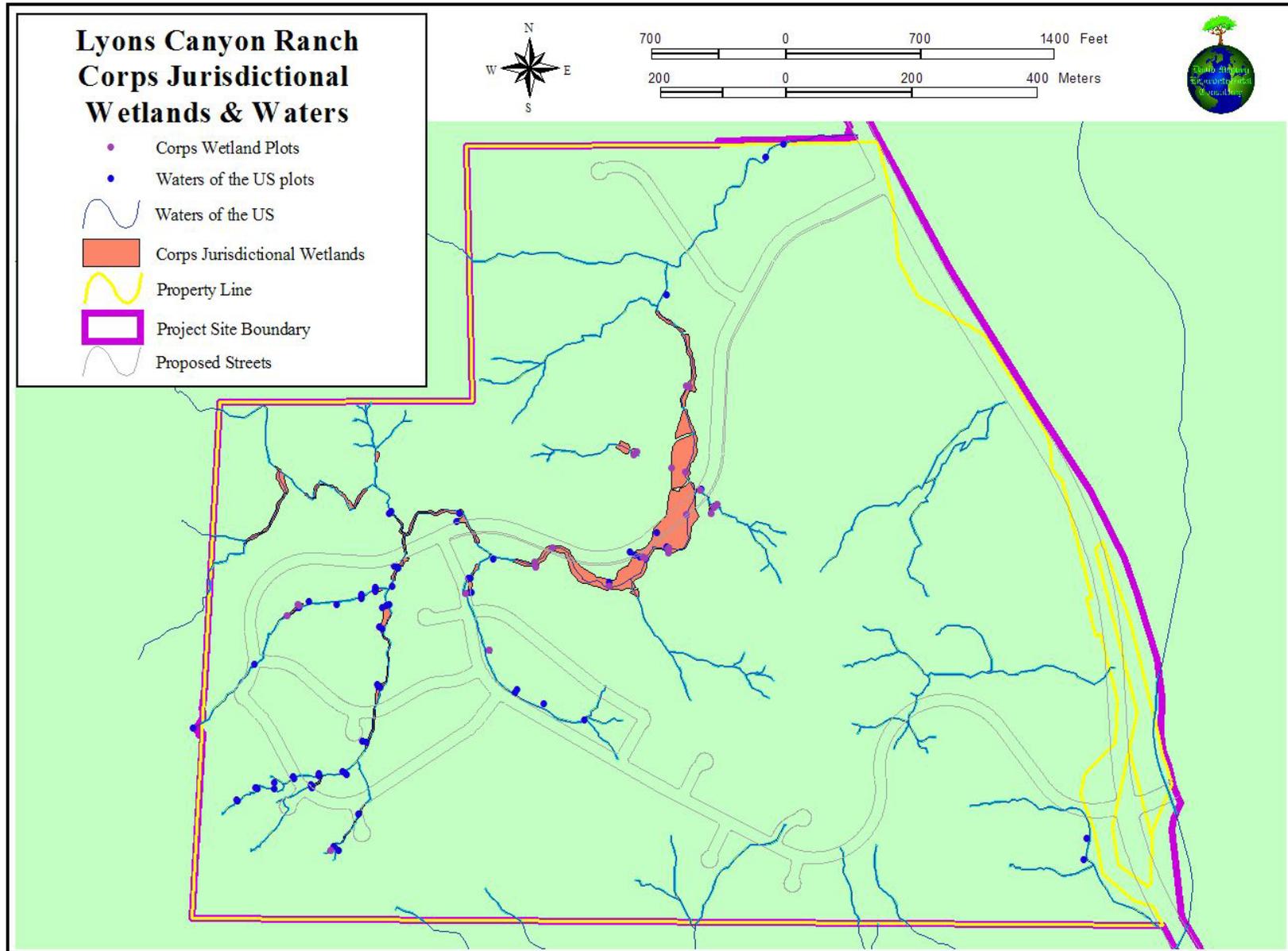
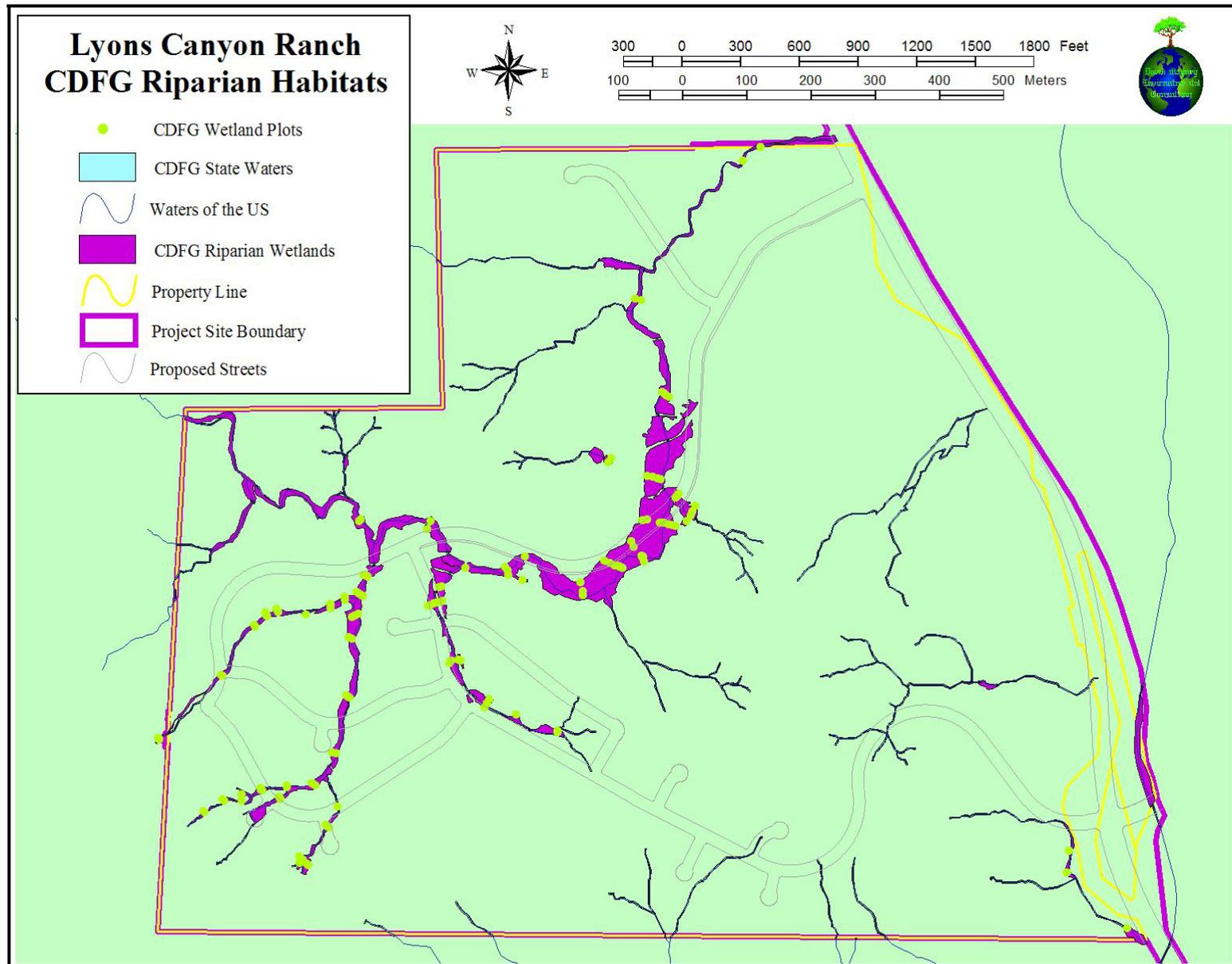


Figure 5. Map of the CDFG Jurisdictional Riparian Habitat Area at Lyons Canyon Ranch





TOTAL JURISDICTIONAL WATERS AND WETLANDS

This subsection provides a summary and total area of all Lyons Canyon Ranch jurisdictional waters and wetlands (Table 4, Summary of All Jurisdictional Waters, Wetland, and Riparian Areas at Lyons Canyon Ranch; and Figure 6, Map of All Waters, Wetland, and Riparian Areas at Lyons Canyon Ranch). Total Corps jurisdiction is estimated to be 9.10 acres, including 34,939.8 linear feet of watercourses. Corps jurisdictional wetlands onsite total approximately 4.75 acres using the three wetland criteria method. CDFG area was determined by identifying areas and plots that had either riparian/wetland vegetation or well-defined watercourses (ephemeral included). CDFG jurisdictional area is estimated at 15.51 acres onsite and includes all areas under Corps jurisdiction. Approximately 12.44 acres of riparian wetland habitat exists onsite.

Table 4. Summary of All Jurisdictional Waters, Wetland, and Riparian Areas at Lyons Canyon Ranch

Agency/Status	Linear Feet	Acres
Corps Jurisdictional Waters of the U.S., excluding wetlands	28,723.8	4.35
Corps Jurisdictional Wetlands	6,216.0	4.75
Total Corps Jurisdiction (Waters and Wetlands)	34,939.8	9.10
CDFG Riparian Habitats	14,474.5	12.44 ⁶
CDFG stream courses (without riparian vegetation)	19,343.4	3.07
Total CDFG Jurisdictional Area	33,814.9	15.51

As mentioned under Site Conditions in Section II, past activities by others (not associated with the proposed development) within the wetlands and drainages onsite have resulted in fill or habitat degradation. DMEC attempted to identify many of these sites, which are shown on Figures B1 through B10 (as Appendix B), the wetland delineation maps of the project site. Road culvert crossings are included. The firefighters working the Simi Wildfire also caused fill at a number of locations throughout the project site, primarily the result of bulldozer work to remove riparian vegetation and fill drainages apparently to allow vehicle access easier. Below are some photographs of such conditions onsite within jurisdictional areas of the project site.

No calculations of total area previously impacted has been attempted; however, the total area is likely less than 1% of the Corps jurisdictional area but likely significantly higher for habitats under CDFG jurisdiction.

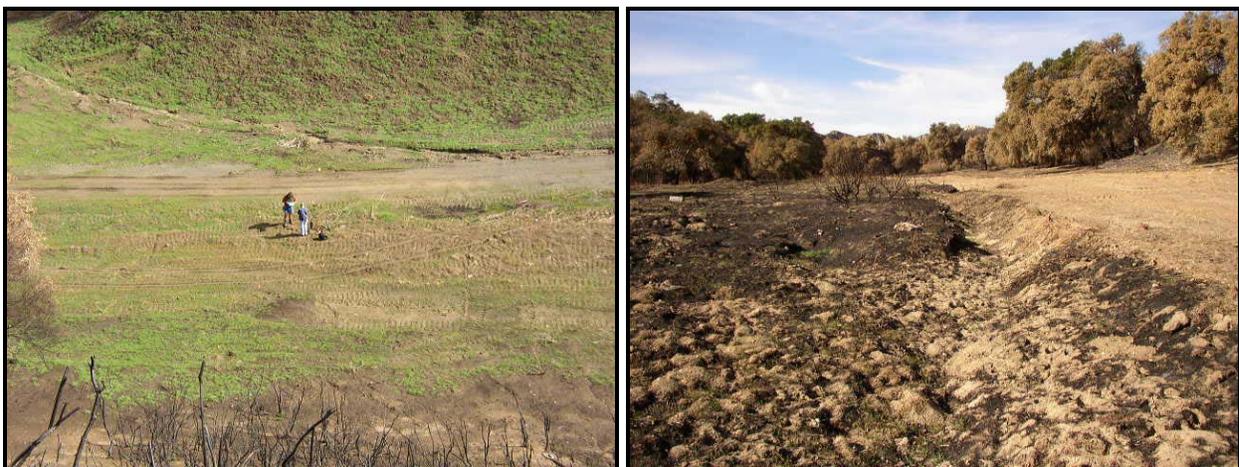
⁶ The area of riparian habitat was calculated from the delineation of habitat by the field surveys and aerial photograph interpretation of pre-burned vegetation.



Dozer work next to/and upstream of a The Old Road culvert (19Dec2003).

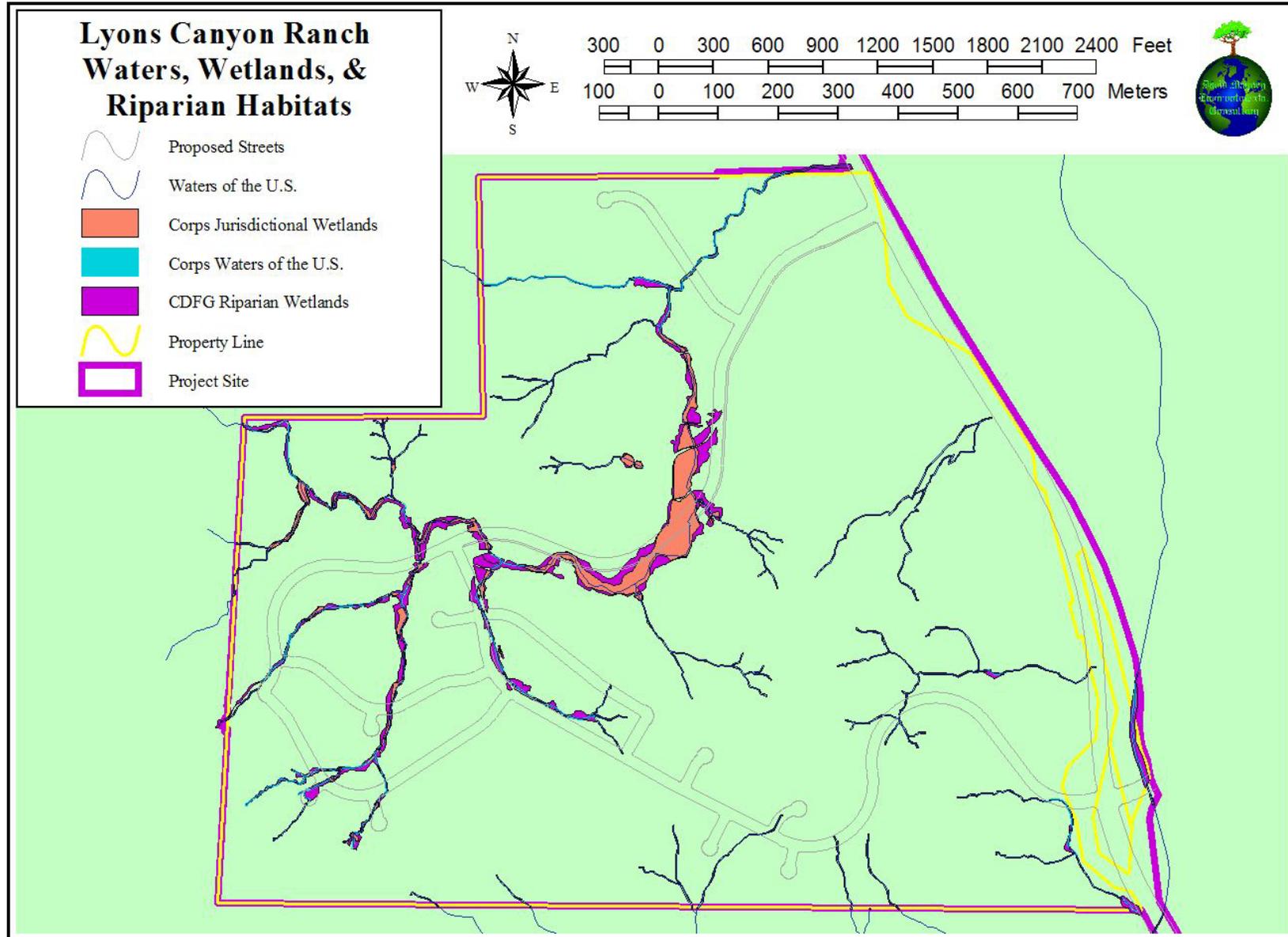


Sandbag bank stabilization and an old culvert crossing on Lyon Canyon Creek (23Feb2004).



Left: Bulldozer marks in canyon bottom where Mulefat Scrub once dominated (23Feb2004). Right: A tributary creek filled by bulldozer activities presumably during firefighting events of October 2003 (19Dec2003).

Figure 6. Map of All Waters, Wetland, and Riparian Areas at Lyons Canyon Ranch



SECTION VI. ACKNOWLEDGEMENTS

This delineation of jurisdictional waters and riparian habitats report was written by David Magney (project manager) and Cher Batchelor. Mr. Magney and Kenneth Niessen prepared the GIS database and graphics for this report. Mr. Magney calculated the area for all jurisdictional areas (waters and wetlands). Mr. Magney, Ms. Batchelor, Mr. Niessen, and Daniel Brenner conducted the wetland delineation onsite.

Jasch Janowicz, of Daly Owens Group, provided assistance with various components of the project objectives and activities. Diamond West Engineering provided project boundaries and project site development graphics components. This delineation was reviewed and verified by Ms. Lisa Mangione of the U.S. Army Corps of Engineers, Regulatory Branch, Los Angeles District, Ventura Field Office.

SECTION VII. CITATIONS

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