

## **APPENDIX R**

# **JURISDICTIONAL DELINEATION OF AREAS SUBJECT TO THE JURISDICTION OF THE CALIFORNIA DEPARTMENT OF FISH AND GAME**

**PURSUANT TO  
SECTION 1600 OF THE FISH AND GAME CODE**

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## **INTRODUCTION**

Federal, state and local agencies, in cooperation with local landowners are currently engaged in a comprehensive land use and natural resource planning process for the San Juan Creek and western San Mateo Creek watersheds within southern Orange County. This comprehensive planning process includes preparation of a Special Area Management Plan (SAMP) and Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan (NCCP/MSAA/HCP). In support of the SAMP and MSAA, the U.S. Army Corps of Engineers (Corps) conducted a landscape level delineation, to identify areas of potential Corps and California Department of Fish and Game (CDFG) jurisdiction along with the mapping of areas of potential wetlands and riparian habitat within the SAMP and MSAA study area.<sup>1</sup>

In addition to the planning level delineation, Regulatory Specialists from Glenn Lukos Associates (GLA) conducted a project level jurisdictional delineation between October 29, 2002 and November 5, 2003 to identify and quantify the extent of areas subject to the jurisdiction of the (1) Corps pursuant to Section 404 of the Clean Water Act and (2) the CDFG pursuant to Section 1600 of the Fish and Game Code. Appendix A to this document includes a list of specific field dates. A total of nine planning areas were evaluated with the maximum potential limits of each planning area subject to the project-level delineation. In addition, all major roadway alignments not included within the nine planning areas were also examined. Finally, for Planning Area 1, a recently completed detailed project level planning delineation identified limited areas adjacent to Planning Area 1 potentially affected by infrastructure improvements that were not addressed during the original delineation of the planning areas and/or roadway alignments. The new delineation was expanded to include these limited areas.

## **METHODOLOGY**

Prior to beginning the field delineation a 200-scale color aerial photograph, a 200-scale topographic base map of the property, and the USGS topographic maps Cañada Gobernadora (dated 1968, photo revised in 1988), San Clemente (dated 1968 and photo revised in 1975) and San Juan Capistrano (dated 1968 and photo revised in 1981) were examined to determine the locations of potential areas of Corps/CDFG jurisdiction. Prior to completing the jurisdictional delineation, GLA was provided a copy of a planning level delineation prepared by the Corps in September of 2000. All areas identified as potentially jurisdictional in the planning level delineation were evaluated for Corps and CDFG jurisdiction. All suspected jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and

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<sup>1</sup> Lichvar, R., G. Gustina, D. MacDonald, and M. Ericsson. 2000. Planning Level Delineation and Geospatial Characterization of Riparian Ecosystems of San Diego Creek Watershed, Orange County California. Prepared for the U.S. Army Corps of Engineers, Engineering and Research Development Center (ERDC) Cold Regions Research and Engineering Laboratory (CRREL), Hanover N.H. September 2000.

hydrology. Suspected wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual<sup>2</sup> (Wetland Manual). While in the field the jurisdictional area was recorded onto a 200-scale color aerial photograph using visible landmarks. Other data were recorded onto wetland data sheets.

Beginning on March 11, 2003, Regulatory Specialists from GLA; a representative of Rancho Mission Viejo; representatives of the Corps including Mr. Russell Kaiser, Ms. Corice Farrar, and Mr. Rob Lawrence; and representatives of CDFG including Mr. Don Chadwick, Mr. Bradley Henderson, and Ms. Donna Cobb conducted a field verification of the project level delineation. Prior to beginning the field-level verification, the Corps representative Mr. Kaiser noted that the Corps would generally assert jurisdiction over drainages that conduct flows during 10-year storm events or less, and that drainages that do not conduct flows during 10-year events are not considered as waters of the United States. Following the initial site visits in early March, the area experienced a rainfall event on March 15, 2003 that averaged over five inches over most of the study area, corresponding very closely with a 10-year event. The 10-year storm event resulted in clear discharge in many of the drainages evaluated, including presence of litter and debris (e.g., oak leaves or other plant materials), sediment deposits, and destruction of terrestrial vegetation (through scouring or buried by sediments). However, many of the features failed to exhibit any signs of discharge. The 10-year storm event recorded on March 15, in at least some instances allowed for determination of (1) presence of a streambed that exhibits flowing water, and (2) where present the lateral extent of the streambed and/or associated aquatic resources.

The field verification was completed on October 27, 2003. During the field verification, all areas identified in the Lichevar (2000) planning level delineation as well as by GLA in the project level delineation were examined.

Exhibits depicting the results of the CDFG jurisdictional delineation are attached to this Appendix as *Figures 1 through 11 (Sheets 1-12)*.

## SUMMARY OF RESULTS

A total of nine potential development areas or “bubbles” were evaluated, plus areas subject to potential impacts associated with major arterials that connect the potential development bubbles. Total CDFG jurisdiction identified within the potential development areas and the potential arterial right-of-ways is 399.03 acres, of which 369.16 acres consist of vegetated riparian habitat. Table 1 summarizes the jurisdictional totals by planning area.

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<sup>2</sup> Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

**TABLE 1: Study Area Jurisdictional Totals**

<b>Planning Area</b>	<b>Riparian Vegetation<sup>1</sup></b>	<b>Unvegetated Streambed<sup>2</sup></b>	<b>Total CDFG<sup>3</sup></b>
Ortega Gateway	3.83	0.84	4.67
Chiquita	41.66	0.55	42.21
Gobernadora	49.46	4.87	54.33
East Ortega	44.49	3.48	47.97
Trampas	26.06	4.29	30.35
Cristianitos Meadows	9.54	0.32	9.86
Cristianitos Canyon	15.87	5.81	21.68
TRW	23.13	4.26	27.39
O'Neill Ranch	31.69	4.47	36.16
Road Gaps	123.43	0.98	124.41
<b>Totals</b>	<b>369.16</b>	<b>29.87</b>	<b>399.03</b>

<sup>1</sup> Total area (acres) of Riparian Vegetation subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>2</sup> Total area (acres) of unvegetated streambed subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>3</sup> Total area (acres) of features subject to CDFG jurisdiction (consists of both riparian vegetation and unvegetated streambed).

### **PLANNING AREA 1 (ORTEGA GATEWAY)**

Planning Area 1 is located near the western edge of the study area immediately west of Antonio Parkway and includes areas on both sides of Ortega Highway. Much of the area encompassed by the Ortega Gateway area has been previously developed or under long-term agriculture. RMV and CDFG have reached concurrence regarding the jurisdictional status for each of the features summarized in the tables below. CDFG jurisdiction in Planning Area 1 totals approximately 4.67 acres, of which 3.83 acres consist of vegetated riparian habitat. *Figure 1* depicts areas of CDFG jurisdiction within Planning Area 1.

**TABLE 2: Ortega Gateway Jurisdictional Totals**

Feature Name	Riparian Vegetation <sup>1</sup>	Unvegetated Streambed <sup>2</sup>	Total CDFG <sup>3</sup>
San Juan Creek	0.65	0.11	0.76
1-1	0.12	0.00	0.12
1-2	0.00	0.03	0.03
1-3	0.09	0.02	0.11
1-4	0.06	0.12	0.18
1-5	0.00	0.02	0.02
1-6	0.04	0.20	0.24
1-7	0.75	0.00	0.75
1-8	0.00	0.03	0.03
1-9	0.37	0.08	0.45
1-10	0.00	0.01	0.01
1-11	0.03	0.01	0.04
1-12	1.73	0.23	1.96
<b>Totals</b>	<b>3.83</b>	<b>0.84</b>	<b>4.67</b>

<sup>1</sup> Total area (acres) of Riparian Vegetation subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>2</sup> Total area (acres) of unvegetated streambed subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>3</sup> Total area (acres) of features subject to CDFG jurisdiction (consists of both riparian vegetation and unvegetated streambed).

## **PLANNING AREA 2 (CHIQUITA CANYON)**

Planning Area 2 is located at the northwestern corner of the study area immediately west of Antonio Parkway and north of San Juan Creek. The Planning Area consists of a main canyon (Chiquita Canyon), which generally traverses the western one-third to one-quarter of the study area. The extreme western portion of the study area includes east-facing slopes that drain toward Chiquita Creek, a prominent aquatic feature/drainage that occupies the bottom of this broad canyon. Chiquita Creek supports a mosaic of wetland types including areas of southern arroyo willow riparian forest, alkali marsh, freshwater marsh, and alkali meadow. The area east of Chiquita Creek consists of a series of northeast-to-southwest trending side canyons alternating with gentle hills. Many of the side canyons are broad features that exhibit low gradients and have been subject to decades of farming, consisting mostly of winter barley or orchards (lemons and avocados). RMV and CDFG have reached concurrence regarding the jurisdictional status for each of the features summarized in the tables below. *Figure 2* depicts areas of CDFG jurisdiction within Planning Area 2.

CDFG jurisdiction in Planning Area 2 totals approximately 42.21 acres, of which 41.66 acres consist of vegetated riparian habitat. A number of the side canyons do not contain drainages that exhibit a bed or bank.

**TABLE 3: Chiquita Jurisdictional Totals**

Feature Name	Riparian Vegetation <sup>1</sup>	Unvegetated Streambed <sup>2</sup>	Total CDFG <sup>3</sup>
Chiquita	29.88	0.00	29.88
2-1	0.39	0.04	0.43
2-2	0.24	0.01	0.25
2-3	0.24	0.00	0.24
2-4	0.48	0.02	0.50
2-5	1.70	0.00	1.70
2-6	0.83	0.02	0.85
2-7	0.00	0.02	0.02
2-8	2.53	0.00	2.53
2-9	0.00	0.02	0.02
2-10	0.00	0.06	0.06
2-11	0.09	0.11	0.20
2-12	0.01	0.00	0.01
2-13	5.27	0.25	5.52
2-14	0.00	0.003	0.003
<b>Totals</b>	<b>41.66</b>	<b>0.55</b>	<b>42.21</b>

<sup>1</sup> Total area (acres) of Riparian Vegetation subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>2</sup> Total area (acres) of unvegetated streambed subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>3</sup> Total area (acres) of features subject to CDFG jurisdiction (consists of both riparian vegetation and unvegetated streambed).

**TABLE 4: Chiquita Non-jurisdictional Feature Totals**

Feature Name	Riparian Vegetation (acres)	Unvegetated Streambed (acres)	Total Acreage
Wetland A	0.11	0.00	0.11
Wetland B	0.40	0.00	0.40
Excavated Depression	NA	NA	0.15
<b>Totals</b>	<b>0.51</b>	<b>0.00</b>	<b>0.66</b>

<sup>1</sup> These features have been field verified and CDFG concurs that they are not subject to regulation pursuant to Section 1602 of the Fish and Game Code

**PLANNING AREA 3 (GOBERNADORA)**

Planning Area 3 is located near the northern edge of the study area east of Caspers Wilderness Park and north of San Juan Creek. The Planning Area generally exhibits steeper topography than Planning Area 2. A ridgeline, that trends from southwest to the northeast divides the Planning Area into two drainage areas, with the northwest half of the Planning Area draining to Gobernadora Creek and the southeast half of the Planning Area draining to San Juan Creek. Gobernadora Creek originates in the Cleveland National Forest to the north, traversing Coto de Caza before entering the Planning Area at the extreme northwest corner of the Planning Area before exiting the Planning Area about 3,000 feet from the northern boundary of the Planning Area. Gobernadora Creek runs parallel to and outside of the Planning Area after exiting the Planning Area, ultimately discharging into San Juan Creek beyond the southwest corner of the Planning Area. RMV and CDFG have reached concurrence regarding the jurisdictional status for each of the features summarized in the tables below. *Figure 3* depicts areas of CDFG jurisdiction within Planning Area 3.

CDFG jurisdiction in Planning Area 3 totals approximately 54.33 acres, of which 49.46 acres consist of vegetated riparian habitat. A number of side canyons to the east of Gobernadora Creek do not contain drainages exhibiting a bed or bank and therefore are not subject to CDFG jurisdiction.

**TABLE 5: Gobernadora Jurisdictional Feature Totals**

<b>Feature Name</b>	<b>Riparian Vegetation<sup>1</sup></b>	<b>Unvegetated Streambed<sup>2</sup></b>	<b>Total CDFG<sup>3</sup></b>
Gobernadora	9.40	0.00	9.40
3-1	0.23	0.00	0.23
3-2	0.04	0.02	0.06
3-3	0.29	0.24	0.53
3-4	1.07	0.05	1.12
3-5	5.49	0.53	6.02
3-6	4.82	0.12	4.94
3-7	0.26	0.33	0.59
3-8	0.00	0.13	0.13
3-9	0.00	0.10	0.10
3-10	1.85	0.47	2.32
3-11	0.00	0.01	0.01
3-12	7.27	1.38	8.65
3-13	12.98	1.48	14.46
3-14	0.48	0.00	0.48

**TABLE 5: Gobernadora Jurisdictional Feature Totals**

Feature Name	Riparian Vegetation <sup>1</sup>	Unvegetated Streambed <sup>2</sup>	Total CDFG <sup>3</sup>
3-15	0.21	0.00	0.21
3-16	4.28	0.00	4.28
3-17	0.00	0.01	0.01
Sulphur Canyon	0.79	0.00	0.79
<b>Totals</b>	<b>49.46</b>	<b>4.87</b>	<b>54.33</b>

<sup>1</sup> Total area (acres) of Riparian Vegetation subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>2</sup> Total area (acres) of unvegetated streambed subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>3</sup> Total area (acres) of features subject to CDFG jurisdiction (consists of both riparian vegetation and unvegetated streambed).

**TABLE 6: Gobernadora Non-jurisdictional Feature Totals**

Feature Name	Riparian Vegetation (acres)	Unvegetated Streambed (acres)	Total Acreage
Isolated Willow Seep	0.26	0.00	0.26
3-5 Seep	0.06	0.00	0.06
Mining Pits	4.36	0.00	4.36
<b>Total</b>	<b>4.68</b>	<b>0.00</b>	<b>4.68</b>

<sup>1</sup> These features have been field verified and CDFG concurs they are not subject to regulation pursuant to Section 1603 of the Fish and Game Code.

#### **PLANNING AREA 4 (EAST ORTEGA)**

Planning Area 4 is located near the northern edge of the study area immediately south of Ortega Highway and includes Verdugo Canyon. RMV and CDFG have reached concurrence regarding the jurisdictional status for each of the features summarized in the tables below. CDFG jurisdiction in Planning Area 4 totals approximately 47.97 acres, of which 44.49 acres consist of vegetated riparian habitat. *Figure 4* depicts areas of CDFG jurisdiction within Planning Area 4.

**TABLE 7: East Ortega Jurisdictional Feature Totals**

Feature Name	Riparian Vegetation <sup>1</sup>	Unvegetated Streambed <sup>2</sup>	Total CDFG <sup>3</sup>
San Juan Creek	0.55	0.00	0.55
Verdugo	19.39	0.00	19.39
4-1	0.02	0.09	0.11
4-2	0.00	0.13	0.13
4-3	1.05	0.16	1.21
4-4	0.00	0.04	0.04
4-5	0.18	0.18	0.36
4-6	0.00	0.05	0.05
4-7	0.36	0.20	0.56
4-8	0.00	0.03	0.03
4-9	0.00	0.04	0.04
4-10	0.00	0.02	0.02
4-11	6.36	0.49	6.85
4-12	6.56	0.48	7.04
4-13	1.34	0.31	1.65
4-14	0.41	0.04	0.45
4-15	0.16	0.10	0.26
4-16	1.52	0.10	1.62
4-17	5.24	0.31	5.55
4-17 Pond	0.59	0.00	0.59
4-18	0.02	0.12	0.14
4-19	0.74	0.59	1.33
<b>Totals</b>	<b>44.49</b>	<b>3.48</b>	<b>47.97</b>

<sup>1</sup> Total area (acres) of Riparian Vegetation subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>2</sup> Total area (acres) of unvegetated streambed subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>3</sup> Total area (acres) of features subject to CDFG jurisdiction (consists of both riparian vegetation and unvegetated streambed).

**TABLE 8: East Ortega Non-jurisdictional Feature Totals**

Feature Name	Riparian Vegetation (acres)	Unvegetated Streambed (acres)	Total Acreage
Nursery Ditch <sup>2</sup>	0.03	0.00	0.03
<b>Total</b>	<b>0.03</b>	<b>0.00</b>	<b>0.03</b>

<sup>1</sup> This feature has been field verified and CDFG concurs it is not subject to regulation pursuant to Section 1602 of the Fish and Game Code

**PLANNING AREA 5 (TRAMPAS)**

Planning Area 5 is located in the San Juan Creek Watershed and is located immediately south of Ortega Highway. Much of the Planning Area is currently occupied by a sand mining and processing operation that has operated in the southern half of the Planning Area since the 1960s. Sand mining and processing has required significant modifications to the landscape in the central portion of the Planning Area including creation of a dam on Trampas Canyon Creek and excavation of a large non-jurisdictional mining pit (Cell A) and additional areas of influence within the sand mining operation. *Figure 5* depicts CDFG jurisdictional areas within Planning Area 5. *Figure 6* focuses on the Oglebay Norton Sand Washing Facilities.

Based upon verification visits with CDFG, RMV and CDFG have agreed on the jurisdictional status of all areas or features within the Planning Area not associated with the mining operations. All areas or features within the mining operation have been constructed to support the mining operation and are maintained to provide such support. Upon cessation of the mining operation all of these features will be removed in accordance with mining reclamation requirements including: (1) Tailings Deposition/Water Recycling Area, (2) Ridgetop Reservoir, (3) Thickener, (4) Desilting Pond and associated Ditches, (5) Temporary Storage Pond, and (6) Cell A Mining Pit. Those features that are components of the mining operation are described below under “Sand Mining Operation,” and since they will be subject to removal during the reclamation process prior to any development within the Planning Area would not be subject to CDFG jurisdiction as they will not exist.

CDFG jurisdiction associated with Planning Area 5 totals 30.35 acres, of which 26.06 acres consist of vegetated riparian habitat. A summary of features subject to CDFG verification for which RMV and the CDFG concur relative to their jurisdictional status is provided in Tables 9 and 10. Table 9 is a summary of areas subject to CDFG jurisdiction and Table 10 is a summary of areas not subject to CDFG jurisdiction due regulatory considerations (e.g., isolated wetlands or riparian habitat not associated with a lake or streambed).

**TABLE 9: Trampas Jurisdictional Feature Totals**

Feature Name	Riparian Vegetation <sup>1</sup>	Unvegetated Streambed <sup>2</sup>	Total CDFG <sup>3</sup>
5-1A	2.76	0.21	2.97
5-1B	6.25	1.96	8.21
5-2	1.94	0.00	1.94
5-3	0.00	0.03	0.03
5-4	0.09	0.17	0.26

**TABLE 9: Trampas Jurisdictional Feature Totals**

Feature Name	Riparian Vegetation <sup>1</sup>	Unvegetated Streambed <sup>2</sup>	Total CDFG <sup>3</sup>
5-5	1.27	0.01	1.28
5-6	0.10	0.13	0.23
Slope Wetland B	0.17	0.00	0.17
5-7	7.12	1.28	8.40
5-7A	3.64	0.08	3.72
5-7B	2.72	0.42	3.14
<b>Totals</b>	<b>26.06</b>	<b>4.29</b>	<b>30.35</b>

<sup>1</sup> Total area (acres) of Riparian Vegetation subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>2</sup> Total area (acres) of unvegetated streambed subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>3</sup> Total area (acres) of features subject to CDFG jurisdiction (consists of both riparian vegetation and unvegetated streambed).

**TABLE 10: Trampas Non-jurisdictional Feature Totals**

Feature Name	Riparian Vegetation (acres)	Unvegetated Streambed (acres)	Total Acreage
Saltgrass Swale	0.002	0.00	0.002
Seasonal Pond	0.13	0.00	0.13
Slope Wetland A	0.04	0.00	0.04
Settling Pond A	NA	NA	0.26
Settling Pond B	NA	NA	1.30
Settling Pond C	NA	NA	1.33
Settling Pond D	NA	NA	2.37
Juncus Patch	NA	NA	0.05
<b>Total</b>	<b>0.17</b>	<b>0.00</b>	<b>0.17</b>

<sup>1</sup> These features have been field verified and CDFG concurs they are not subject to regulation pursuant to Section 1602 of the Fish and Game Code

### **Sand Mining Facilities**

As noted above, a substantial portion of the Trampas Planning Area has been affected by sand mining activities since the 1960s. The sand mining operation requires use of water during various steps in the process including (1) washing of the mined materials to separate silts and clays from the sand, and (2) use of water to transport silt and clay tailings to tailings storage area areas (i.e., Tailings Pond) via pumps. In order to conserve water through recycling as well as to maintain maximum flexibility in the system, an elaborate system of ponds, pipes, and ditches have been constructed that are used in the washing and recycling processes. These various

components of the sand washing operation are described below and are also depicted and appropriately designated on *Figures 5 and 6*. The features further described below include:

- Trampas Dam and associated “Tailings Deposition/ Water Recycling Area”
- Dam-Face “V”-Ditches
- Dam-Face Leach Field and Associated Drainage Features
- Thickener
- Desilting Pond and Associated Recycling Ditches and Pipes
- Ridgetop Reservoir
- Temporary Storage Pond
- Cell A

### **Trampas Dam and Associated Tailings Deposition and Water Recycling Area**

Trampas Dam was constructed in 1975 following preparation and certification of an Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act.<sup>3</sup> The dam was constructed in a manner that isolated Trampas Creek and its ephemeral tributaries that supported approximately 12 acres of southern coast live oak riparian forest.

Because substantial water is lost to evaporation during various steps in the washing process as well as from the Tailings Deposition/Water Recycling Area, it is necessary to pump well water into the pond to maintain water levels. If water is not regularly added to the process, the Tailings Pond Area will dry up. At its current elevation, the Tailings Deposition and Water Recycling Area covers approximately 70 acres. Portions of the exposed tailings support various densities of southern cattail (*Typha domingensis*, OBL), and California bulrush (*Scirpus californicus*, OBL), depending on water levels.

The Tailings Deposition/Water Recycling Area serves two primary functions in the processing of sand: (1) it receives all of the tailings separated from the sand during the washing process, and (2) it serves as a re-circulating water source for the washing process. During the washing process, water is moved through a variety of the facilities noted above with the movement patterns of the water varying according to a number of factors directly related to the needs of the mining operation. As stated above, the goal to conserve the maximum amount of water during the washing process has resulted in the creation of a series of storage areas and conduits that allow water to be recycled at various points in the process.

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<sup>3</sup> Final Environmental Impact Report (EIR 74-7). 1974. Prepared for Owen-Illinois Waste Management and Water Reclamation System. Final EIR Certified on June, 1974.

Construction of the Tailings Deposition/Water Recycling Area resulted in the loss of ephemeral drainages that also supported approximately 12 acres of southern coast live oak riparian forest prior to construction. While the EIR identified impacts to oak woodland, no distinction was made between southern coast live oak riparian forest and non-riparian oak woodlands or forest. The determination that approximately 12 acres of oak riparian habitat was affected by the dam and subsequent inundation was based on a review of historic aerial photographs in conjunction with an onsite field review of nearby canyons with similar oak riparian resources by GLA during the project level delineation. The tailings pond is still in active use by Oglebay Norton, the operator of the mining facility.

All of the features discussed below were created for the purposes of the mining operations and will not exist in their current state after the plant closes. The descriptions that follow address components in the sand mining and processing operation as they exist today as well as a discussion of the aquatic characters they would be expected to retain after mining operations cease. These descriptions are intended to clearly demonstrate that none of the features associated with the mining operation would be regulated as a stream or lake under Section 1600. Although the term “lakes” is not defined in the Fish and Game Code or in CDFG regulations, the CDFG’s Legal Advisor has referred to the definition in Black’s Law Dictionary, 5<sup>th</sup> edition:

A considerable body of standing water in a depression of land or expanded part of a closed basin serving to drain surrounding country; or a body of water of considerable size surrounded by land; a widened portion of a river or a lagoon. Also a: Body of water, more or less, stagnant, in which the water is supplied from drainage.<sup>4</sup>

### **Dam Face and Associated “V”-Ditches**

Construction of the dam included installation of a series of V-Ditches that capture precipitation falling on the 11.5-acre dam face. There is no hydrologic connection between the Tailings Pond/Recycle Area behind the dam and the water collected on the face of the dam. The primary function of the V-Ditches on the Dam is to prevent damage to the dam through rilling and erosion. These V-Ditches have been designed to discharge all flows to an underground inlet near the face of the dam where a 24-inch pipe was installed to collect the runoff, ultimately directing it to the “Desilting Pond” via pipes and an above-ground artificial non-jurisdictional drainage ditch. By design, all water that originates on the face of the dam is directed into the recycling system for use in the mining process. The concrete V-Ditches constructed on the dam face do not meet the definition of a stream set forth in the Fish and Game Code and would not be subject to regulation pursuant to Section 1600.

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<sup>4</sup> Ivester, Dave. December 9, 2003. Memorandum regarding CDFG jurisdiction.

### **Dam Face Leachfield and Associated Pipes**

Construction of the dam also included installation of interior drains to protect the dam from seepage. Water is collected in drains, which are in turn are connected to an underground rock and gravel collection field. Much of the water is collected in a four-inch clay pipe and is carried underground to the “Temporary Storage Pond”. As noted above, the leachfield is also designed to drain to the V-Ditch and then into the 24-inch pipe. By design, all of the subdrain water from the base of the dam is intended for the Temporary Storage Pond or the Desilting Pond, and ultimately to the Thickener.

### **Thickener**

The Thickener is a constructed circular basin that receives tailings-laden water from the washing operations and also receives fresh water that enters the washing system at this point (well water can be pumped into the system at a number of locations as needed). The thickener is mechanically “stirred” in order to maintain the tailings in suspension so that they can be pumped as a slurry to the Tailings Deposition/Water Recycling Area. The outer rim of the thickener includes a two-foot-wide concrete ditch that directs overflow water (the thickener only rarely overflows) to a metal pipe, which carries the overflow to the Temporary Storage Pond from where the water can be pumped back to the thickener or to the Desilting Pond. The Thickener does not meet the definition of a lake set forth in the Fish and Game Code and would not be subject to regulation pursuant to Section 1600 since it was constructed in upland and is not sustained by drainage from the surrounding land but rather artificial irrigation. Also, as noted, this component of the mining operation would be removed prior to any RMV development within the Planning Area.

### **Ridgetop Reservoir**

The Ridgetop Reservoir is located immediately adjacent to and substantially above the Tailings Pond in elevation. This feature receives water that is pumped from the Desilting Pond as well as directly from well water. This feature was constructed entirely on upland and because of its topographic position does not receive and runoff from the surrounding watershed. While it supports limited areas of hydrophytic vegetation, the only source of water for this feature (other than direct rainfall) is entirely from pumped water. The Ridgetop Reservoir does not meet the definition of a lake set forth in the Fish and Game Code and would not be subject to regulation pursuant to Section 1600 since it was constructed in upland and is not sustained by drainage from the surrounding land but rather artificial irrigation. Also, as noted, this component of the mining operation would be removed prior to any RMV development within the Planning Area.

### **Temporary Storage Pond**

The Temporary Storage Pond, which covers approximately 0.65 acre, is an artificial basin, constructed on upland and, by design, was not constructed as an impoundment of jurisdictional waters. Rather, the Temporary Storage Pond was constructed to receive overflow from the Thickener as well as the minimal discharge from the four-inch clay pipe, generated by the drain at the base of the dam.

Accumulation of sediments generated by the sand mining and processing operation has resulted in a minor diversion of a nearby drainage such that a side channel has developed that flows into the basin during large storm events. The basin has no outlet or spillway and is, by design fully isolated from jurisdictional waters. The bottom of the basin supports California bulrush, mule fat scrub and a few individual arroyo willows.

This feature was excavated and bermed in uplands and has no connection to downstream jurisdictional streams. A side channel that migrated from the mainstem of Drainage 5-7 currently discharges to this feature; however, the feature was not designed with this connection and the feature remains isolated. The Temporary Storage Pond does not meet the definition of a lake set forth in the Fish and Game Code and would not be subject to regulation pursuant to Section 1600 since it was constructed in upland and is sustained by artificial irrigation. Also, as noted, this component of the mining operation would be removed prior to any RMV development within the Planning Area.

### **Desilting Pond and Associated Ditches and Pipes**

A Desilting Pond is located immediately west of the Thickener. The Desilting Pond receives tailings-laden wash water that is drained from washed sands located in the washing facilities immediately east of the washing facilities (see Figure 5). From the wet sand piles, water drains through one of two artificial non-jurisdictional drainage ditches (NJD Feature A and/or NJD Feature B). NJD Feature A is connected directly to the Desilting Pond by means of a pipe. NJD Feature B is connected directly to the Desilting Pond by means of a pipe, which discharges into NJD Feature C and a third pipe that connects NJD Feature C with the Desilting Pond. The Desilting Pond does not meet the definition of a lake set forth in the Fish and Game Code and would not be subject to regulation pursuant to Section 1600. The collection ditches that drain water from the washed sand to the Desilting Pond do not meet the definition of a stream set forth in the Fish and Game Code and would not be subject to regulation pursuant to Section 1600 since it was constructed in upland and is not sustained by drainage from the surrounding land, but rather artificial irrigation. Also, as noted, this component of the mining operation would be removed prior to any RMV development within the Planning Area. Also, as noted, this

component of the mining operation would be removed prior to any RMV development within the Planning Area.

### Cell A

Cell A is located approximately 1,000 feet north of the Trampas Dam. Cell A, which covers approximately 11.56 acres of open water and exposed tailings which support various densities of southern cattail (*Typha domingensis*, OBL), and bulrush (*Scirpus californicus*, OBL). Cell A is an area of dry land that has been under excavation since the 1960's and currently consists of a mining pit that is fully isolated with no potential outlets due to the elevation. Cell A is a potential reservoir for deposition of tailings and recycling of wash water. Cell A is subject to active mining and any portions remaining at the termination of mining operations would be reclaimed pursuant to the reclamation plan developed for the site. Cell A will not meet the definition of a lake set forth in the Fish and Game Code at the time of project implementation and therefore is not subject to regulation pursuant to Section 1600.<sup>5</sup> Also, as noted, this component of the mining operation would be removed prior to any RMV development within the Planning Area.

### Abandoned Settling Ponds

A series of five abandoned settling basins occupy a bench below the ridgeline that runs along the western boundary of the Planning Area. The abandoned basins are isolated and are not connected to jurisdictional waters. None of the basins support a predominance of hydrophytic vegetation and, due to the lack of water subsidies from the mining operation, are reverting to upland habitat.

**Table 11: Trampas Non-jurisdictional Mining Facilities**

Feature Name	Riparian Vegetation (acres)	Unvegetated Streambed (acres)	Total Acreage
Cell A Mining Pit	11.56	0.00	11.56
Desilting Pond	0.00	0.12	0.12
NJD Erosional Feature	0.00	0.04	0.04
NJD Mining Feature A	0.17	0.00	0.17
NJD Mining Feature B	0.00	0.11	0.11
NJD Mining Feature C	0.00	0.13	0.13
Ridgetop Reservoir	1.86	3.24	5.10

<sup>5</sup> California Department of Fish and Game. October 7, 2004. Letter addressed to Oglebay Norton Industrial Sands, Inc, confirming that Cell A does not meet the definition of a lake and is not subject to the 1600 Streambed/Lake program.

**Table 11: Trampas Non-jurisdictional Mining Facilities**

Feature Name	Riparian Vegetation (acres)	Unvegetated Streambed (acres)	Total Acreage
Thickener	0.18	1.34	1.52
ONIS Tailings Pond	41.32	29.79	71.11
Temporary Storage Pond	0.65	0.00	0.65
<b>Total</b>	<b>55.74</b>	<b>34.77</b>	<b>90.51</b>

**PLANNING AREA 6 (CRISTIANITOS MEADOWS)**

Planning Area 6 is located near the southeastern edge of the study area immediately north of the O'Neill Land Conservancy. RMV and CDFG have reached concurrence regarding the jurisdictional status for each of the features summarized in the tables below. CDFG jurisdiction in Planning Area 6 totals approximately 9.86 acres, of which 9.54 acres consist of vegetated riparian habitat. *Figure 7* depicts areas of CDFG jurisdiction within Planning Area 6.

**TABLE 12: Cristianitos Meadows Jurisdictional Feature Totals**

Feature Name	Riparian Vegetation <sup>1</sup>	Unvegetated Streambed <sup>2</sup>	Total CDFG <sup>3</sup>
Cristianitos Stock Pond	1.00	0.00	1.00
6-1	0.00	0.01	0.01
6-2	2.20	0.02	2.22
6-3	0.22	0.18	0.40
6-4	6.12	0.11	6.23
<b>Totals</b>	<b>9.54</b>	<b>0.32</b>	<b>9.86</b>

<sup>1</sup> Total area (acres) of Riparian Vegetation subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>2</sup> Total area (acres) of unvegetated streambed subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>3</sup> Total area (acres) of features subject to CDFG jurisdiction (consists of both riparian vegetation and unvegetated streambed).

**TABLE 13: Cristianitos Meadows Non-jurisdictional Feature Totals**

Feature Name	Riparian Vegetation (acres)	Unvegetated Streambed (acres)	Total Acreage
Vernal Marsh	0.17	0.00	0.17
<b>Total</b>	<b>0.17</b>	<b>0.00</b>	<b>0.17</b>

<sup>1</sup> This feature has been field verified and CDFG concurs that it is not subject to regulation pursuant to Section 1602 of the Fish and Game Code

### **PLANNING AREA 7 (CRISTIANITOS CANYON)**

Planning Area 7 is located near the southern portion of the study area and immediately east of the O'Neill Land Conservancy. For this report, the Planning Area is divided into two distinct areas: the eastern half which is characterized by fairly steep topography with deep canyons that drain toward Gabino Creek that runs generally parallel to and beyond the limits of the southern Planning Area boundary. The western half of the Planning Area exhibits more gentle topography and drains to the upper reach of Cristianitos Creek. Gabino Creek and the upper reach of Cristianitos Creek join just southwest of the Planning Area boundary.

The southern portion of the Planning Area exhibits a number of clay mines that have been under operation since the 1930s. Mining is currently not in operation; however, the lease holders continue maintenance operations and all but one of the mining operations are subject to reclamation pursuant to plans submitted to and administered by the County of Orange.<sup>6</sup> As recently as September of 2002, representatives of Riverside Cement met with officials of the County of Orange onsite to review reclamation plans and discuss plant palettes to be used upon implementation of the reclamation programs.<sup>7</sup>

CDFG jurisdiction in Planning Area 7 totals approximately 21.68 acres, of which 15.87 acres consist of vegetated riparian habitat. *Figure 8* depicts areas of CDFG jurisdiction within Planning Area 7.

<sup>6</sup> No jurisdictional waters are associated with clay mine that are not subject to County of Orange reclamation requirements.

<sup>7</sup> Bomkamp, Tony. Personal observation as attendee at two meetings to address reclamation of the sites.

**TABLE 14: Cristianitos Canyon Jurisdictional Feature Totals**

Feature Name	Riparian Vegetation <sup>1</sup>	Unvegetated Streambed <sup>2</sup>	Total CDFG <sup>3</sup>
7-1	0.22	0.44	0.66
7-2	0.17	0.57	0.74
7-3	0.00	0.13	0.13
7-4	0.00	0.29	0.29
7-5	0.00	0.09	0.09
7-6	1.18	0.13	1.31
7-7	7.29	1.17	8.46
7-8	0.00	0.08	0.08
7-9	0.02	0.08	0.10
7-10	0.00	0.15	0.15
7-11	0.07	0.04	0.11
7-12	2.11	0.25	2.36
7-13	3.78	2.18	5.96
7-14	0.16	0.00	0.16
7-15	0.22	0.02	0.24
7-16	0.60	0.02	0.62
7-17	0.05	0.02	0.07
7-18	0.00	0.01	0.01
7-19	0.00	0.14	0.14
<b>Totals<sup>4</sup></b>	<b>15.87</b>	<b>5.81</b>	<b>21.68</b>

<sup>1</sup> Total area (acres) of Riparian Vegetation subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>2</sup> Total area (acres) of unvegetated streambed subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>3</sup> Total area (acres) of features subject to CDFG jurisdiction (consists of both riparian vegetation and unvegetated streambed).

**TABLE 15: Cristianitos Canyon Non-jurisdictional Feature Totals**

Feature Name	Riparian Vegetation (acres)	Unvegetated Streambed (acres)	Total Acreage
Cattail pond	0.01	0.00	0.01
7-11 Isolated seasonal pond <sup>1</sup>	0.04	0.00	0.04
7-12 Isolated stock pond <sup>1</sup>	0.03	0.00	0.03
Isolated willow patch <sup>2</sup>	NA	NA	0.15
<b>Totals</b>	<b>0.40</b>	<b>0.28</b>	<b>0.83</b>

<sup>1</sup> These features have been field verified and CDFG concurs that they are not subject to regulation pursuant to Section 1602 of the Fish and Game Code

**PLANNING AREA 8 (TRW)**

Planning Area 8 is located near the southern edge of the study area east of Avenida Pico and north of Talega Creek. RMV and CDFG have reached concurrence regarding the jurisdictional status for each of the features. CDFG jurisdiction in Planning Area 8 totals approximately 27.39 acres, of which 23.13 acres consist of vegetated riparian habitat. *Figure 9* depicts CDFG jurisdiction within Planning Area 8.

**TABLE 16: TRW Jurisdictional Feature Totals**

Feature Name	Riparian Vegetation <sup>1</sup>	Unvegetated Streambed <sup>2</sup>	Total CDFG <sup>3</sup>
Blind Canyon	18.90	0.96	19.86
8-1	0.33	0.17	0.50
8-2	0.00	0.01	0.01
8-3	0.00	0.03	0.03
8-4	0.57	0.05	0.62
8-5	0.00	0.10	0.10
8-6	0.07	0.03	0.10
8-7	0.06	0.19	0.25
8-8	0.00	0.09	0.09
8-9	0.18	0.14	0.32
8-10	0.00	0.05	0.05
8-11	0.09	0.05	0.14
8-12	0.06	0.08	0.14
8-13	0.00	0.07	0.07
8-14	0.00	0.05	0.05
8-15	0.83	0.06	0.89
8-16	0.20	0.02	0.21
8-17	0.01	0.05	0.07
8-18	0.00	0.01	0.01
8-19	0.00	0.01	0.01
8-20	0.10	0.06	0.16
8-21	0.00	0.02	0.02
8-22	0.06	0.48	0.54
8-23	0.02	0.33	0.35
8-24	1.65	0.27	1.92
8-25	0.00	0.14	0.14
8-26	0.00	0.16	0.16
8-27	0.00	0.10	0.10
8-28	0.00	0.13	0.13
8-29	0.00	0.16	0.16
8-30	0.00	0.00	0.00
8-31	0.00	0.14	0.14
8-32	0.00	0.02	0.02
8-33	0.00	0.02	0.02
8-34	0.00	0.01	0.01

**TABLE 16: TRW Jurisdictional Feature Totals**

Feature Name	Riparian Vegetation <sup>1</sup>	Unvegetated Streambed <sup>2</sup>	Total CDFG <sup>3</sup>
<b>Totals</b>	<b>23.13</b>	<b>4.26</b>	<b>27.39</b>

<sup>1</sup> Total area (acres) of Riparian Vegetation subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>2</sup> Total area (acres) of unvegetated streambed subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>3</sup> Total area (acres) of features subject to CDFG jurisdiction (consists of both riparian vegetation and unvegetated streambed).

**TABLE 17: TRW Non-jurisdictional Feature Totals**

Feature Name	Riparian Vegetation (acres)	Unvegetated Streambed (acres)	Total Acreage
Isolated Seasonal Pond	0.58	0.00	0.58
<b>Total</b>	<b>0.58</b>	<b>0.00</b>	<b>0.58</b>

<sup>1</sup> This feature has been field verified and CDFG concurs it is not subject to regulation pursuant to Section 1602 of the Fish and Game Code

## **PLANNING AREA 9 (O'NEILL RANCH)**

Planning Area 9 is located near the eastern edge of the study area within portions of Gabino Canyon. RMV and CDFG reached concurrence regarding the jurisdictional status for each of the features summarized in the Table 18, though it should be noted that under the proposed Ranch Plan alternative (the B-12 Alternative), development is no longer proposed for this Planning Area. CDFG jurisdiction in Planning Area 9 totals approximately 36.16 acres, of which 31.69 acres consist of vegetated riparian habitat. *Figure 10* depicts areas of CDFG jurisdiction within Planning Area 9.

**TABLE 18: O'Neill Ranch Jurisdictional Feature Totals**

Feature Name	Riparian Vegetation <sup>1</sup>	Unvegetated Streambed <sup>2</sup>	Total CDFG <sup>3</sup>
Gabino	18.89	0.05	18.94
9-1	0.60	0.61	1.21
9-2	3.55	0.32	3.87
9-3	0.69	0.10	0.79
9-4	1.64	0.33	1.97
9-5	0.38	0.02	0.40
9-6	0.13	0.17	0.30
9-7	0.00	0.003	0.003

**TABLE 18: O’Neill Ranch Jurisdictional Feature Totals**

Feature Name	Riparian Vegetation <sup>1</sup>	Unvegetated Streambed <sup>2</sup>	Total CDFG <sup>3</sup>
9-8	0.00	0.01	0.01
9-9	0.00	0.01	0.01
9-10	0.00	0.04	0.04
9-11	0.29	0.15	0.44
9-12	0.00	0.03	0.03
9-13	0.10	0.11	0.21
9-14	2.55	0.12	2.67
9-15	0.05	0.22	0.27
Gabino/Jerome Lake Wetland	1.87	0.00	1.87
Jerome Lake	0.95	2.18	3.13
<b>Totals</b>	<b>31.69</b>	<b>4.47</b>	<b>36.16</b>

<sup>1</sup> Total area (acres) of Riparian Vegetation s subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>2</sup> Total area (acres) of unvegetated streambed subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>3</sup> Total area (acres) of features subject to CDFG jurisdiction (consists of both riparian vegetation and unvegetated streambed).

## **ROAD GAPS**

Road Gaps are located throughout the study area. RMV and CDFG have reached concurrence regarding the jurisdictional status for each of the features summarized in the tables below. CDFG jurisdiction in the road gaps totals approximately 124.41 acres, of which 123.43 acres consist of vegetated riparian habitat. CDFG jurisdiction associated with these areas are depicted on *Figure 11, Sheets 1-12*.

**TABLE 19: Road Gap Jurisdictional Feature Totals**

Feature Name	Riparian Vegetation <sup>1</sup>	Unvegetated Streambed <sup>2</sup>	Total CDFG <sup>3</sup>
Blind Canyon	0.84	0.00	0.84
Chiquita	1.72	0.00	1.72
Chiquita Wetland	12.60	0.00	12.60
Cristianitos Creek	9.79	0.00	9.79
Gabino Creek	5.50	0.00	5.50
Gobernadora	3.03	0.00	3.03
Road Gap-1	0.64	0.06	0.70
Road Gap-10/1-7	0.29	0.00	0.29
Road Gap-11/2-11	0.30	0.00	0.30
Road Gap 12/2-12	0.32	0.00	0.32
Road Gap-13/2-14	0.35	0.00	0.35
Road Gap-14/2-13	0.62	0.00	0.62
Road Gap-15/3-16	2.49	0.00	2.49

**TABLE 19: Road Gap Jurisdictional Feature Totals**

Feature Name	Riparian Vegetation <sup>1</sup>	Unvegetated Streambed <sup>2</sup>	Total CDFG <sup>3</sup>
Road Gap-16/3-13	0.45	0.00	0.45
Road Gap-17/5-1	0.00	0.40	0.40
Road Gap-18	0.00	0.01	0.01
Road Gap 19/5-7A	0.23	0.01	0.24
Road Gap 2	0.00	0.02	0.02
Road Gap-20/8-21	0.00	0.06	0.06
Road Gap 21	0.00	0.01	0.01
Road Gap-22	1.25	0.00	1.25
Road Gap-3	0.00	0.01	0.01
Road Gap-4	0.00	0.02	0.02
Road Gap-5/2-1	2.85	0.08	2.93
Road Gap-6/2-4	0.00	0.07	0.07
Road Gap-7/2-5	0.00	0.05	0.05
Road Gap-8	1.44	0.04	1.48
Road Gap-9	0.00	0.14	0.14
San Juan Creek A	6.12	0.00	6.12
San Juan Creek B	16.56	0.00	16.56
San Juan Creek C	17.77	0.00	17.77
San Juan Creek D	22.57	0.00	22.57
San Juan Creek E	10.28	0.00	10.28
Sulphur Canyon Creek	5.42	0.00	5.42
<b>Totals</b>	<b>123.43</b>	<b>0.98</b>	<b>124.41</b>

<sup>1</sup> Total area (acres) of Riparian Vegetation subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>2</sup> Total area (acres) of unvegetated streambed subject to CDFG jurisdiction pursuant to Section 1602 of the Fish and Game Code.

<sup>3</sup> Total area (acres) of features subject to CDFG jurisdiction (consists of both riparian vegetation and unvegetated streambed).

**TABLE 20: Road Gap Non-jurisdictional Feature Totals**

Feature Name	Riparian Vegetation (acres)	Unvegetated Streambed (acres)	Total Acreage
Sulphur Slope Wetland	0.16	0.00	0.16
<b>Totals</b>	<b>0.16</b>	<b>0.00</b>	<b>0.16</b>

<sup>1</sup> This feature has been field verified and CDFG concurs that it is not subject to regulation pursuant to Section 1602 of the Fish and Game Code

**APPENDIX A**  
**Delineation and Verification Site Visit Dates**

<b>Type</b>	<b>Month and Year</b>	<b>Individual Dates</b>
Delineation	October 2002	29, 30, 31
Delineation	November 2003	1, 4, 7, 11, 12, 14, 21, 25, 26
Delineation	December 2002	6, 16
Delineation	January 2003	15
Delineation	February 2003	19, 21, 24, 27
Delineation	March 2003	3, 5, 6, 8, 21, 24, 26
Delineation	April 2003	1, 8, 16, 22, 23, 24, 25, 28
Delineation	May 2003	1, 2, 13, 22, 23
Delineation	June 2003	2, 5, 9, 11, 12, 13, 26, 27
Delineation	July 2003	9, 10, 11, 14
Delineation	October 2003	6, 7, 17
Delineation	November 2003	5
Verification	March 2003	11, 14, 19
Verification	April 2003	1, 11, 29, 30
Verification	May 2003	21, 23
Verification	June 2003	18, 25
Verification	July 2003	2, 3, 8, 9, 14, 22, 23, 30, 31
Verification	August 2003	6, 15
Verification	October 2003	27