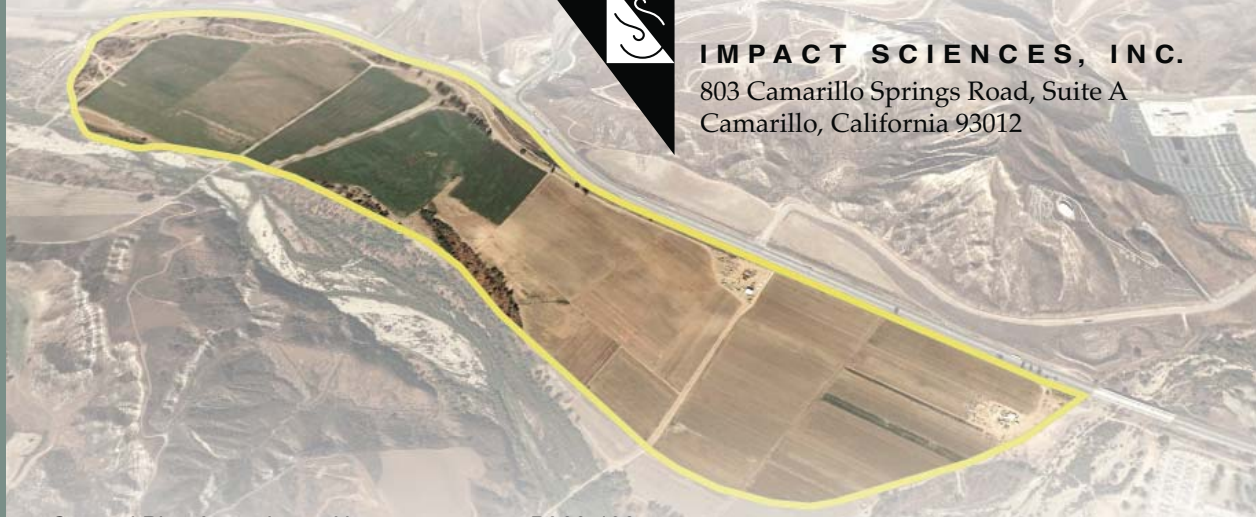
County of Los Angeles

Draft Environmental Impact Report

SCH No. 2004021002

Map Box

LANDMARK VILLAGE



Prepared By:

IMPACT SCIENCES, INC.
803 Camarillo Springs Road, Suite A
Camarillo, California 93012

General Plan Amendment No.	PA00-196
Sub Plan Amendment No.	LP00-197
Specific Plan Amendment No.	SP00-198
Vesting Tentative Tract Map No.	53108
SEA Conditional Use Permit No.	RCUP200500112
Oak Tree Permit No.	OTP00-196
Off-Site Materials Transport Approval No.	CUP00-196
Conditional Use Permit (Off-Site Grading)	CUP00-196

NEWHALL RANCH
Newhall Ranch Company

NOVEMBER 2006

Map Box

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4.4-5 Special-Status Plants
4.4-8 Impacted Jurisdictional Resources

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4.1-B Major Land Division Vesting Tentative Tract Map No. 53108 – Plate II
4.1-C Major Land Division Vesting Tentative Tract Map No. 53108 – Plate III
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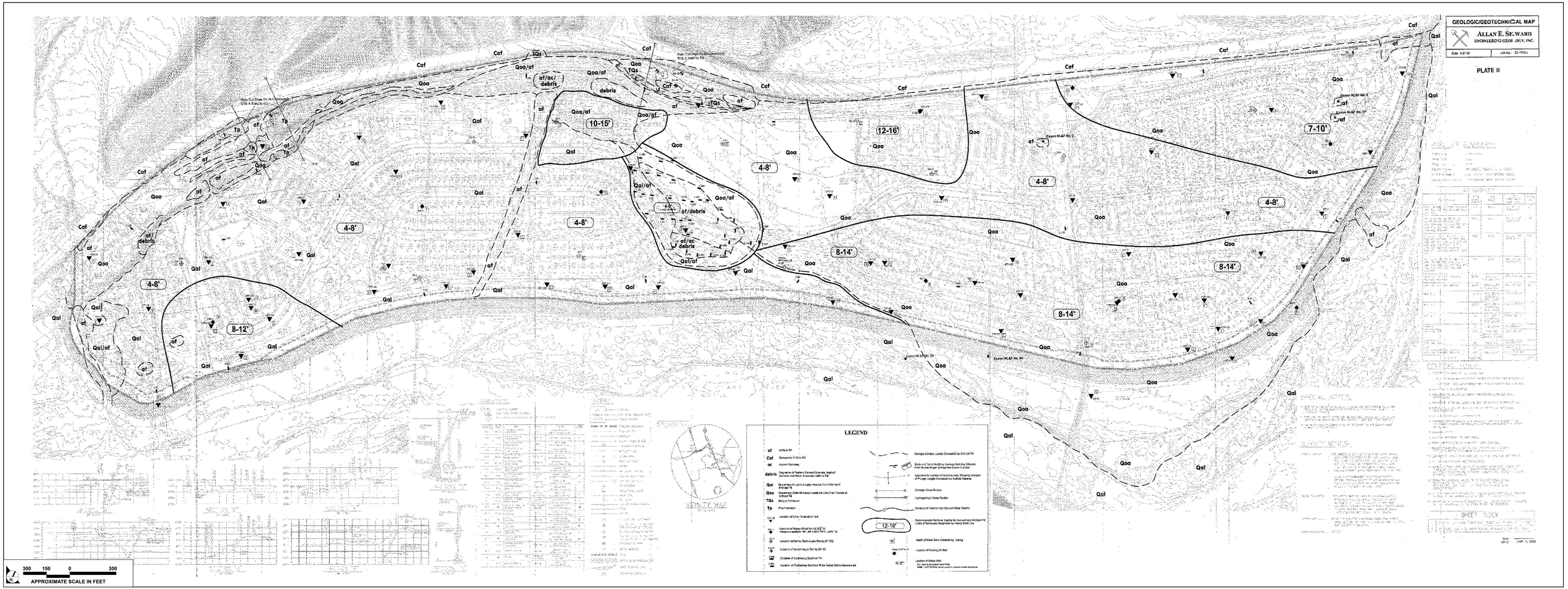
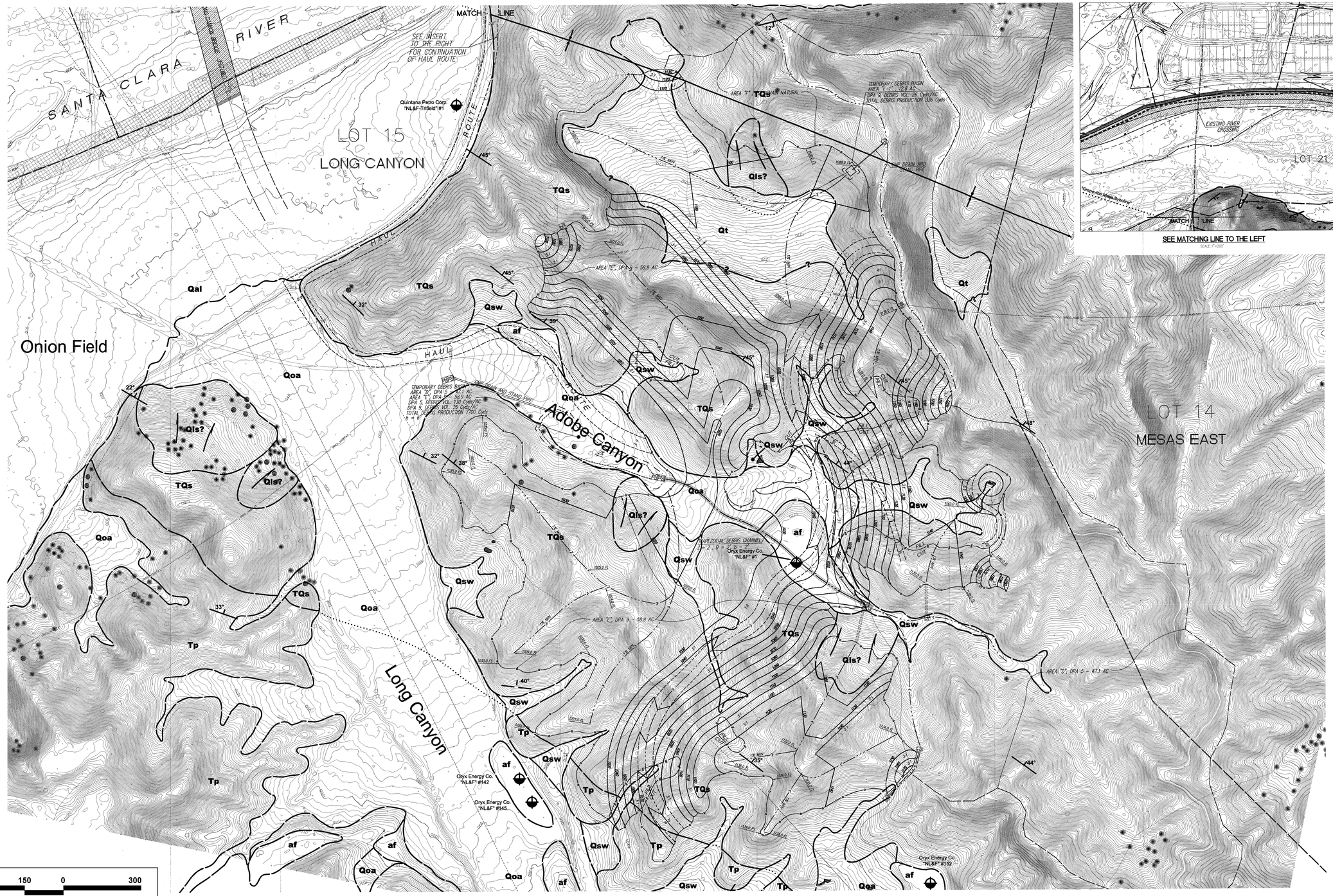


SOURCE: PSOMAS – September 2006

FIGURE **4.1-1**

Geologic/Geotechnical Map

32-92•10/06



SEE MATCHING LINE TO THE LEFT

SCALE 1"=100'

ALLAN E. SEWARD
ENGINEERING GEOLOGY, INC.
Geological And Geotechnical Consultants

Geologic/Geotechnical Map

Date: 11/14/03		Job No.: 03-2022-9
Scale: 1" = 100'		CAD File: Geologic/Geotechnical Map - AC
PLATE I	Geology by: Staff Drawn by: GBD	Revised:

LEGEND

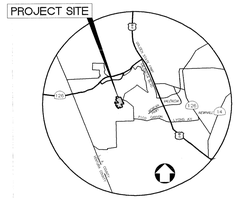
af	Artificial Fill
Qsw	Quaternary Slopewash Deposits
Qal	Quaternary Alluvium
Qoa	Quaternary Older Alluvium
Qls?	Quaternary Landslide, queried where uncertain
Qt	Quaternary Terrace Deposits
TQs	Lower Saugus Formation
Tp	Pico Formation
	Geologic Contact; Dotted where concealed; Queried where inferred
	Trace of Syncline, showing direction of plunge; Dotted where concealed
	Strike and Dip of Bedding
	Approximate Strike and Dips of Bedding
	Approximate Location of Oil Well

LEGEND:

	EXISTING LOT LINE
	EXISTING EASEMENT
1100	PROPOSED CONTOUR
	DAYLIGHT LINE
CUT / FILL	CUT & FILL
	FLOW LINE
	BENCH
	SWALE
	HAUL ROUTE ACCESS ROAD
RC03	RIVER CORRIDOR-2003 (FORMERLY SEA 23)
RC	RIVER CORRIDOR (FORMERLY SEA 23)
FEMA	FEMA
QSD	Q-CAP
	DEBRIS TRIBUTARY LIMIT
	DEBRIS BASIN
	OIL WELL GPS POSITIONED
	OIL WELL DEPT. OF OIL AND GAS CALCULATED POSITION
	OIL WELL DIGITIZED POSITION
	OIL WELL DEPT. OF OIL AND GAS METAL DETECTOR POSITION
	EXISTING OAK TREE
RIP	RIP-RAP
	SPINE FLOWER

RAW EARTHWORK VOLUMES	
RAW CUT	6,580,000 Cubic Yards
RAW FILL	238,850 Cubic Yards
EXPORT	6,341,150 Cubic Yards

PROJECT SITE



VICINITY MAP

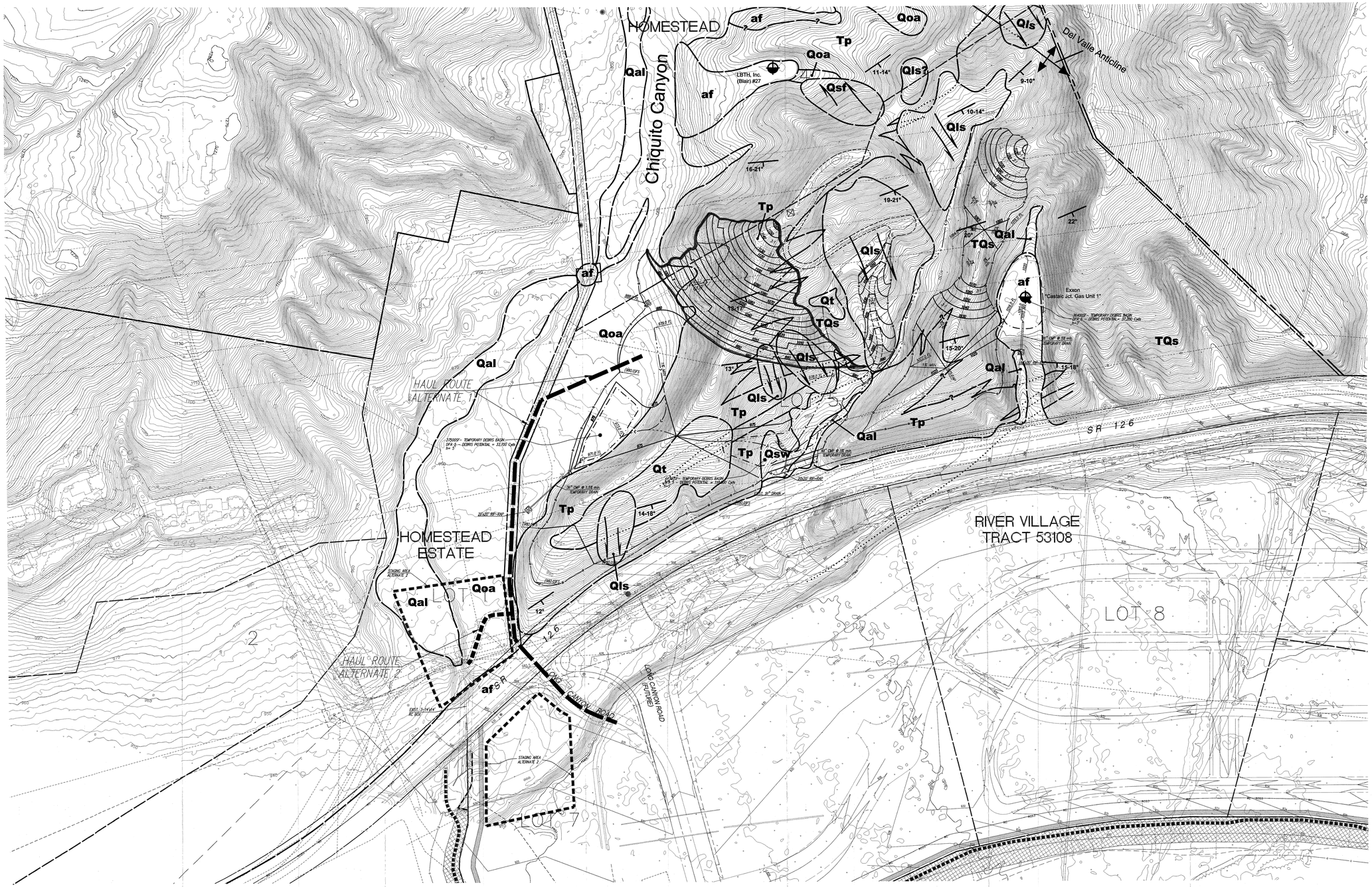
NOT TO SCALE

SOURCE: PSOMAS – September 2006

FIGURE **4.1-2**

Adobe Canyon Geologic/Geotechnical Map

32-92•10/06



300 150 0 300

APPROXIMATE SCALE IN FEET

SOURCE: PSOMAS – September 2006

ALLAN E. SEWARD
ENGINEERING GEOLOGY, INC.
Geological And Geotechnical Consultants

Geologic/Geotechnical Map

Date: 11/14/03	Job No.: 03-2022-8
Scale: 1" = 100'	CAD File: Geologic/Geotechnical Map-CC
PLATE II	Geology by: Staff / Drawn by: GSD / Reviewed:

LEGEND

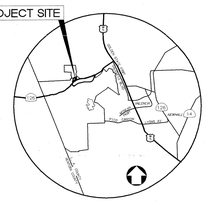
af	Artificial Fill
Qsw	Quaternary Slopewash Deposits
Qal	Quaternary Alluvium
Qoa	Quaternary Older Alluvium
Qls?	Quaternary Landslide, queried where uncertain
Qt	Quaternary Terrace Deposits
TQs	Lower Saugus Formation
Tp	Pico Formation
	Geologic Contact; Dotted where concealed, Queried where inferred
	Trace of Anticline, showing direction of plunge; Dotted where concealed
	Strike and Dip Range of Bedding
	Approximate Location of Oil Well

LEGEND:

- EXISTING PROPERTY LINE
- PROPERTY BOUNDARY
- EXISTING LOT LINE
- EXISTING EASEMENT
- 1000 PROPOSED CONTOUR
- DAYLIGHT LINE
- CUT & FILL
- FLOW LINE
- BENCH
- SWALE
- HAUL ROUTE
- RCC3 RIVER CORRIDOR-2003 (FORMERLY SEA 23)
- RC RIVER CORRIDOR (FORMERLY SEA 23)
- FEMA FEMA
- QSO Q-CAP
- DEBRIS BASIN
- OIL WELL GPS POSITIONED
- OIL WELL DEPT. OF OIL AND GAS CALCULATED POSITION
- OIL WELL DIGITIZED POSITION
- OIL WELL DEPT. OF OIL AND GAS METAL DETECTOR POSITION
- EXISTING OAK TREE
- RIP-RAP
- Qal GEOLOGY

RAW EARTHWORK VOLUMES	
RAW CUT	1,519,000 Cubic Yards
RAW FILL	5,900 Cubic Yards
EXPORT	1,513,200 Cubic Yards

PROJECT SITE



VICINITY MAP
NOT TO SCALE

FIGURE **4.1-3**

Chiquito Canyon Geologic/Geotechnical Map

32-92•10/06

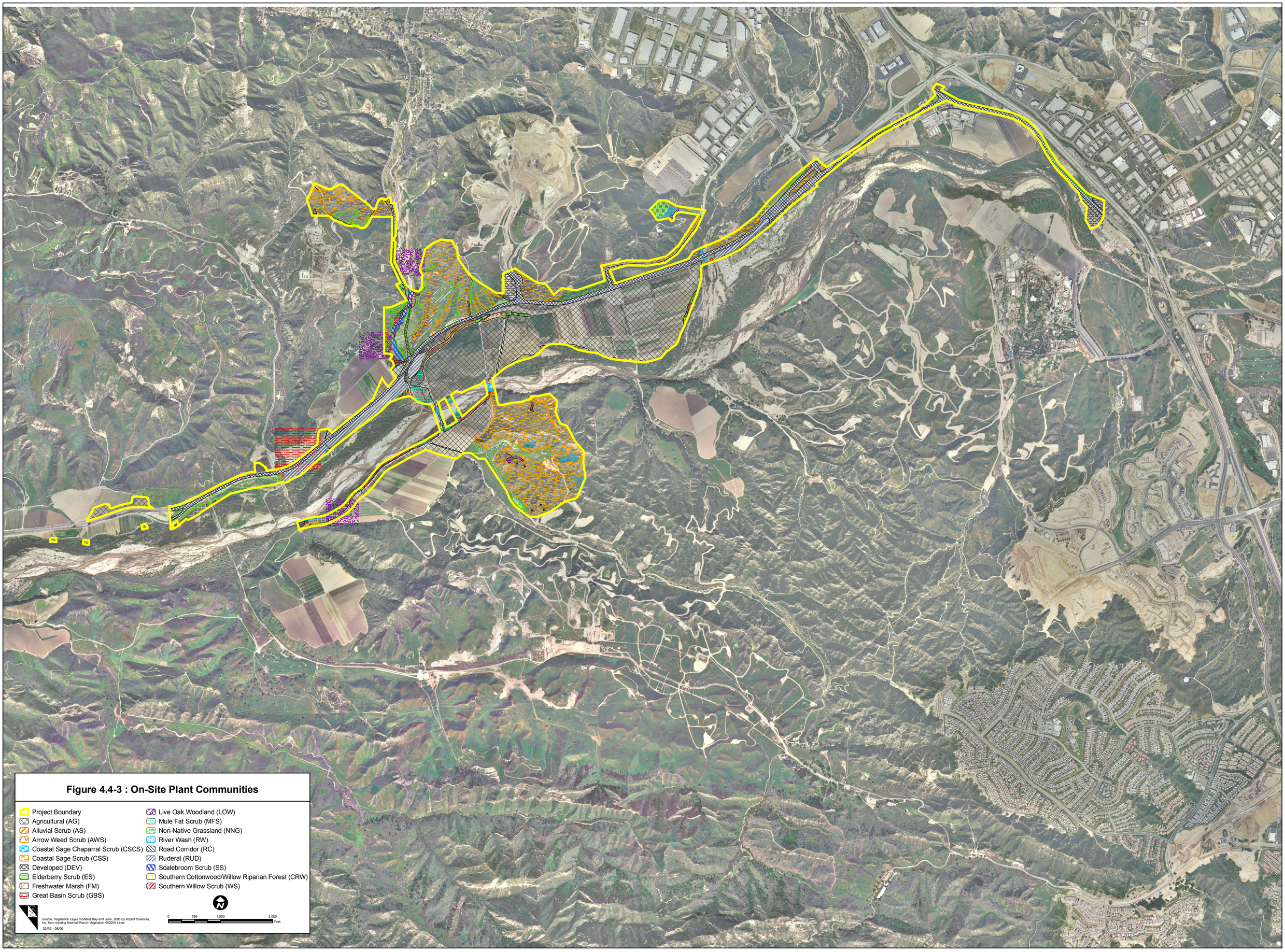


Figure 4.4-3 : On-Site Plant Communities

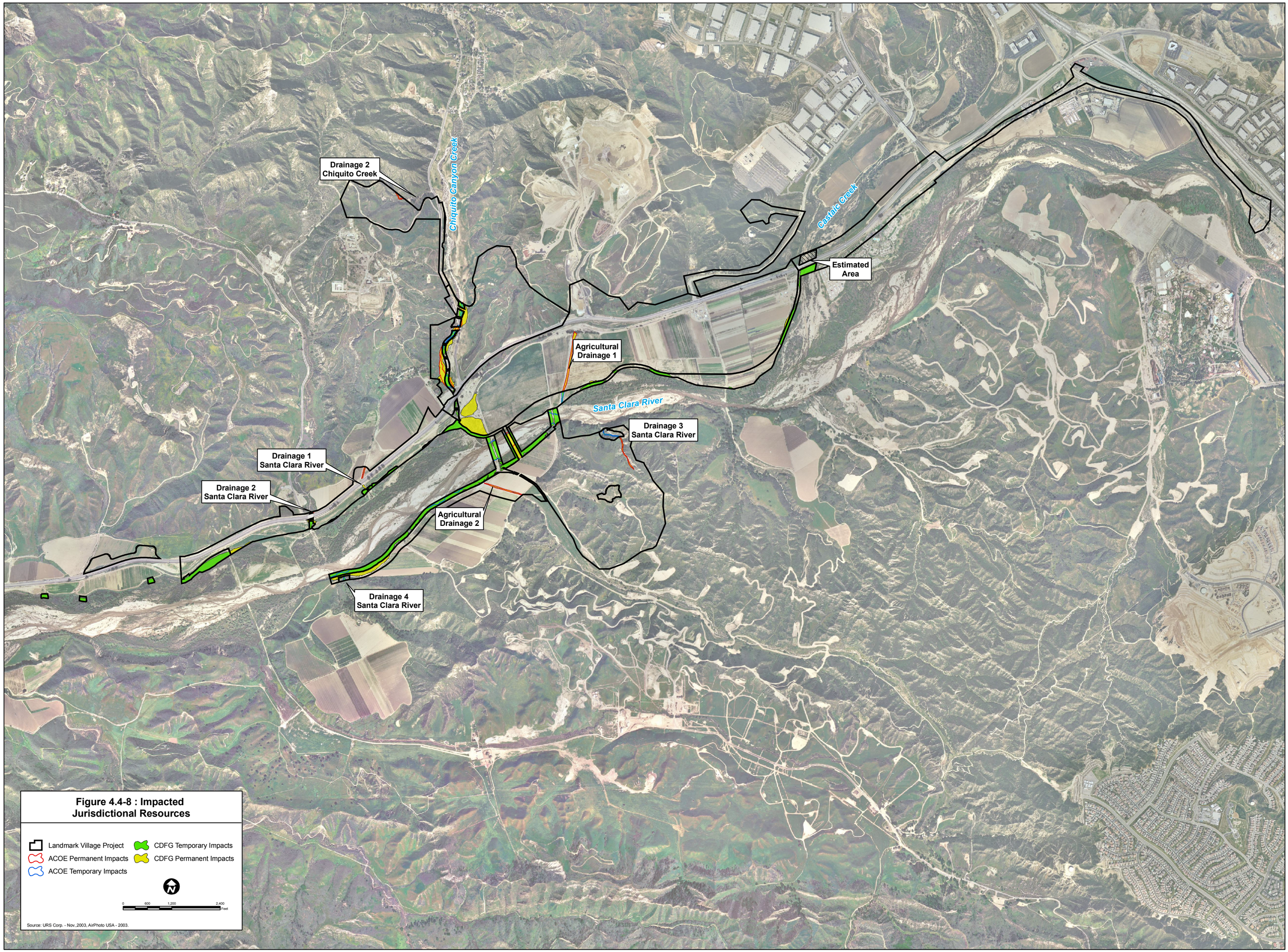
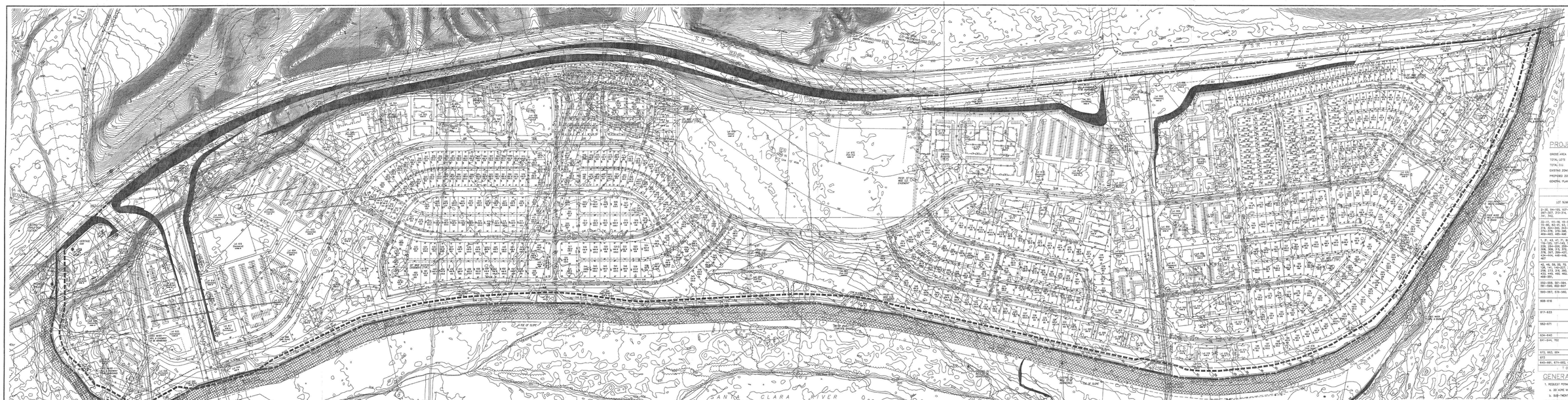


Figure 4.4-8 : Impacted Jurisdictional Resources

PLATE I

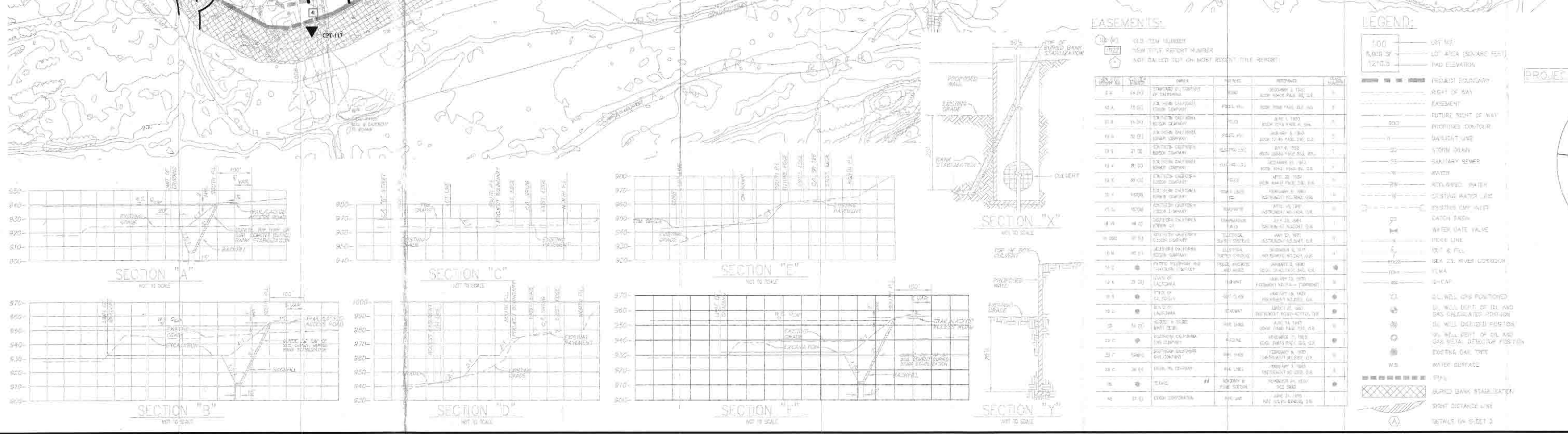

SANTA CLARA RIVER
SR 126
SR 126
SR 126

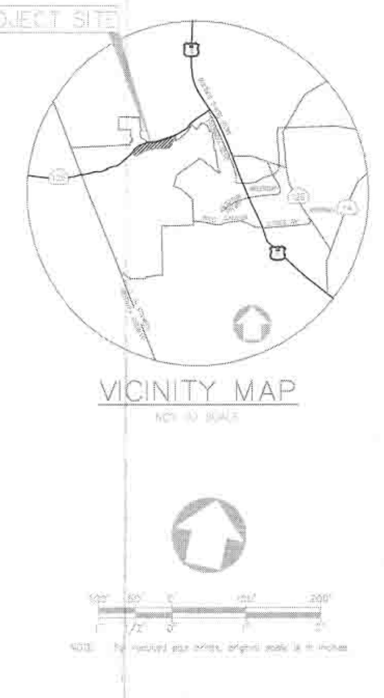
GEOLOGIC/GEOTECHNICAL MAP

ALLAN E. SEWARD
ENGINEERING GEOLOGY, INC.

Date: 9-27-00 | Job No.: 00-1702A

PLATE II





LEGEND

Symbol	Description
af	Artificial Fill
Caf	Compacted Artificial Fill
ac	Asphalt Concrete
debris	Fragments of Portland Cement Concrete, Asphalt Concrete and Rebar mixed with Artificial Fill
Qal	Quaternary Alluvium; Locally Includes Thin Patches of Artificial Fill
Qoa	Quaternary Older Alluvium; Locally Includes Thin Patches of Artificial Fill
TQs	Saugus Formation
Tp	Pico Formation
CPT-128	Location of Cone Penetration Test
RW-14	Location of Rotary-Wash Boring (5 7/8" D) (Piezometers Installed in RW-1, RW-3, RW-7, RW-11 and RW-13)
HS-13	Location of Hollow-Stem-Auger Boring (8" OD)
BA-4R	Location of Bucket-Auger Boring (24" D)
T-27R	Location of Exploratory Backhoe Pit
T-38D	Location of Exploratory Backhoe Pit for Buried Debris Assessment
	Geologic Contact, Locally Concealed by Artificial Fill
	Strike and Dip of Bedding; Average Bedding Attitudes From Bucket-Auger Borings Are Shown In a Box
	Approximate Location of Anticline Axis; Showing Direction of Plunge; Largely Concealed by Surficial Material
3 — 3'	Geologic Cross Section
3H — 3H'	Hydrogeologic Cross Section
5'	Contours of Historic High Ground Water Depths
12-16'	Recommended Removal Depths for Alluvium and Artificial Fill; Limits of Removals Designated by Heavy Solid Line
18'	Depth of Weak Soils Indicated by Testing
Exxon NL&F No. 77	Location of Existing Oil Well
8-8	Location of Water Well. 8-8 - Existing Agricultural Water Wells; 6498A - LACFCD Wells; Some Locations Uncertain and/or Abandoned

PROJECT SUMMARY:

GROSS AREA — 291.2 Acres
TOTAL LOTS — 702
TOTAL D.U. — 1,444
EXISTING ZONING — SP (NEWHALL RANCH SPECIFIC PLAN)
PROPOSED ZONING — SP (NEWHALL RANCH SPECIFIC PLAN)
GENERAL PLAN LAND USE — SP (NEWHALL RANCH SPECIFIC PLAN)

LOT SUMMARY

LOT NUMBERS	TOTAL LOTS/ BLDGS	TYPE (USE)	TYPICAL DIMENSION and SIZE	TOTAL D.U.
2-30, 94-105, 107-118, 293-295, 297-307, 310-314, 317, 320-323, 341, 345	77/	S.F.D.	33' x 105' 3,500± S.F.	77
30-41, 44-46, 48-59, 61-69, 72-80, 83-91, 93, 206, 318, 319, 324-341, 342-349, 351-371, 374-379, 3[illegible]-389, 464-466, 469-483, 485-498	152/	S.F.D.	36' x 105' 3,800± S.F.	152
1, 31, 43, 47, 71, 92, 106, 119, [illegible]-125, 127-140, 142-148, 225, 226, 254-158, 259-273, 274-292, 308, 309, 315, 372, 373, 377, 378, 387, 39[illegible]-427, 429-431, 434-444, 44[illegible]-449, 451-461, 463, 467	142/	S.F.D.	50' x 105' 5,250± S.F.	142
42, 48, 59, 60, 70, 81, 82, 118, 126, 141, 149-227, 230-253, 257, 258, 273, [illegible], 390, 398, 428, 432, 433, 445, 450, 462, 465, 484, 499-551	180/	S.F.D.	60' x 105' 6,300± S.F.	180
552-559, 561-564, 568-577, 581-590, 600-617	48/72	ATTACHED CONDOMINIUMS	1,208,524± S.F.	373
560-567, 578-580, 585-591	16/20	APARTMENTS (FOR LEASE)	150,140 S.F.	520
60[illegible]-612	5/15	MIXED USED/ COMMERCIAL (FOR LEASE)	472,151 S.F.	
617-633	17/13	MIXED USED/ COMMERCIAL (FOR LEASE)	1,264,0[illegible] S.F.	
652-57[illegible]	10/	MIXED USED/ COMMERCIAL (FOR LEASE)	324,6[illegible] S.F.	
634-640	7/	RECREATIONS	141,589 S.F.	
641-644, 701	3/	DRAINAGE (WATER QUALITY CONTROL BASIN)	34,2[illegible] S.F.	
673, 583, 684	3/	PARK SITE	827,[illegible] S.F.	
672	1/	SCHOOL SITE	44,[illegible] S.F.	
645-681, 674-682, 685-701	41/	OPEN SPACE	1,500,[illegible] S.F.	
T O T A L	702/140			1,444

GENERAL NOTES:

1. REQUEST PERMISSION TO FILE PARCEL MAP.
   a. 20 ACRE MINIMUM PARCELS WITH NO REQUIRED PUBLIC IMPROVEMENTS.
   b. SUB-TWENTY (20) ACRE PARCELS WITH PUBLIC ACCESS AND UTILITIES.
2. UNIT PHASING IS REQUESTED.
3. PERMISSION TO ADJUST LOT LINES IS REQUESTED (ACREAGES ARE APPROXIMATE).
4. PERMISSION TO RECORD ADDITIONAL OPEN SPACE LOTS IS REQUESTED.
5. PERMISSION TO RECORD JOINT ACCESS EASEMENTS [illegible] LOTS REQUESTED.
6. REQUEST PERMISSION TO COMBINE LOTS.
7. PROPOSED STREET GRADING IS APPROXIMATE ONLY AND SUBJECT TO ADJUSTMENTS PENDING DETERMINATION OF FINAL DEVELOPMENT LAYOUT AND PLANS.
8. GRADING ±10 FT.
9. REQUEST PERMISSION TO MASS GRADE.
10. TOPO COMPILED 6/30/98 FROM DATA FLOWN 6/26/98.
11. REQUEST PERMISSION TO ADJUST UNIT TYPICALS AND BUILDINGS FOOTPRINTS WITHIN THE MINIMUM SETBACK REQUIREMENTS.
12. LOCATION OF TRAILS TO BE FINALIZED PRIOR TO FINAL MAP APPROVAL.
13. ALL DIMENSIONS SHOWN ARE APPROXIMATE.
14. MODIFIED STREET CROSS-SECTIONS AS SHOWN ON VESTING TENTATIVE TRACT MAP ARE REQUESTED. HOWEVER, PERMISSION IS SOUGHT TO CONSTRUCT STANDARD AND ALTERNATE STREET CROSS-SECTIONS AT THE DISCRETION THE SUBDIVIDER.
15. DEVELOPER REQUESTS THE ABILITY TO REPLACE TYPICAL STREET SECTIONS FOR "S", "W" TO "Z" AND "T" TO "V" STREETS WITH MODIFIED LOCAL STREET (50' R/W) WITH PARKING BOTH SIDES OF STREET.
16. REQUEST PERMISSION TO CONSTRUCT ROLLED CURB & GUTTER IN STREETS IN FRONT OF ALL RESIDENTIAL LOTS EXCEPT ON THE [illegible].
17. WATER QUALITY BASINS ARE CONCEPTUAL ONLY. WATER QUALITY MEASURES WILL BE IMPLEMENTED AT THE DISCRETION OF THE DEVELOPER.

SPECIAL NOTES:

1. LOCATION & SIZE OF WATER QUALITY BASINS ARE APPROXIMATE. SIZES ARE DEPENDENT ON THE AMOUNT OF WATER QUALITY FILTRATION PROVIDED IN UPSTREAM PROJECTS.
2. DEPENDING ON WATER FILTER SIZE, DURING FINAL DESIGN, ANY EXCESS LOT AREA CAN BE INCORPORATED INTO ADJACENT LOTS AND THEIR LAND USE.
3. THE WATER QUALITY BASINS SHALL BE DEDICATED TO THE COUNTY WHEN COMPLETED AND ACCEPTED.

SURVEY NOTES:

VERTICAL DATUM: LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS BENCHMARK DESCRIBED AS FOLLOWS: LACDPW [illegible] ... 1995 ADJUSTMENT (NAVD 1988) ELEVATION = 1031.981

THERE IS APPROXIMATELY 2.3 FEET DIFFERENCE BETWEEN PREVIOUS COUNTY OF LOS ANGELES DATUMS BASED UPON NAVD 1929 AND NAVD 1988 (NAVD 1988 IS 2.3 FEET HIGHER THAN NGVD 1929).

AERIAL PLANIMETRY: THIS SURVEY WAS PREPARED BY PHOTOGRAMMETRIC PROCESSES UTILIZING AERIAL PHOTOGRAPHY DATED SEPTEMBER 18, 1998. THE OUTLINE OF BUILDINGS AND OTHER ROOFED IMPROVEMENTS MAY INCLUDE EAVES, CANOPIES AND BALCONIES. SINCE BUILDINGS BELOW THOSE ITEMS ARE NOT VISIBLE TO THE CAMERA.

TOPOGRAPHY: BY PHOTOGRAMMETRIC PROCESSES FROM LIDAR IMAGING DATED JUNE 24-26, 1998, AND COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS.

CONTOUR INTERVAL: 2 FOOT.

SHEET INDEX

1	VESTING TENTATIVE TRACT MAP-TRACT NO. 53108 (1" = 100')
2	20 ACRE SUB = 20 ACRE PARCEL PHASING & DETAIL SHEET

REV:
DATE: JUNE 11, 2000

LEGAL DESCRIPTION:
PARCELS 14, 15, 16, 17 OF PARCEL MAP NO. 24500-01 PMB 293-34 / 67, RECORDS OF LOS ANGELES COUNTY.

REGISTERED PROFESSIONAL ENGINEER JASON H. FUKUMITSU No. 40695 Exp. 3-31-03 CIVIL STATE OF CALIFORNIA

PSOMAS
11444 West Olympic Boulevard, Suite 750
West Los Angeles, CA 90064-1549
(310) 954-3700 (310) 954-3777 (FAX)

JASON H. FUKUMITSU R.C.E. NO. 40695 DATE

DESIGNED: JFH
DRAFTED: MD/DB
CHECKED: JFH/WY

OWNER/DEVELOPER:
NEWHALL RANCH
23823 WEST VALENCIA BOULEVARD
VALENCIA, CALIFORNIA 91335
TELEPHONE: (661) 255-4000
REPRESENTATIVE: MR. DAVID CROWDER

MAJOR LAND DIVISION
VESTING TENTATIVE TRACT MAP
NO. 53108

4.1-B

IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES STATE OF CALIFORNIA

PROJECT NO. 1NRC0107.00

SHEET 1 OF 2

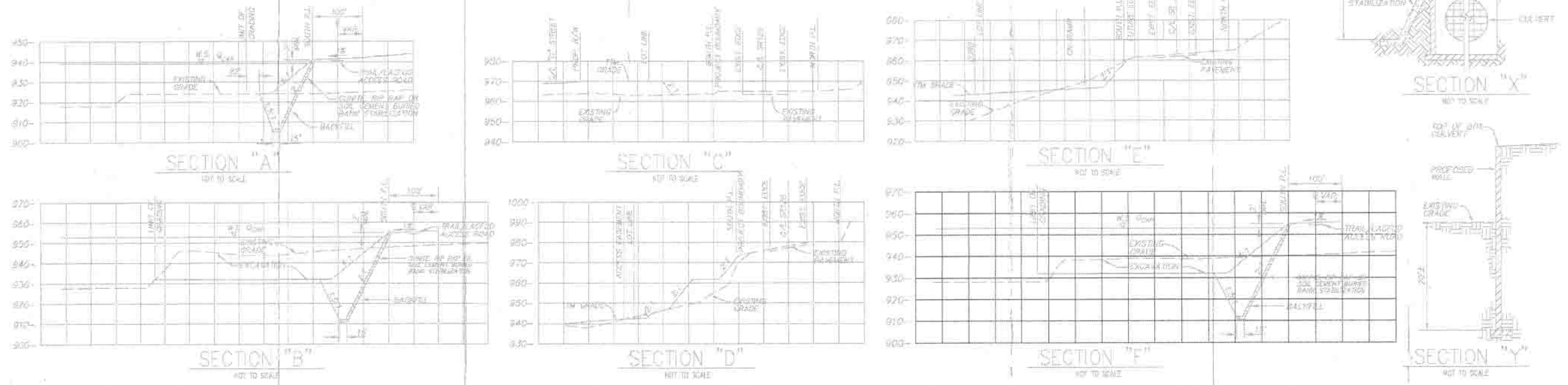
RV01-01

GROUND WATER CONTOUR MAP

ALLAN E. SEWARD
ENGINEERING GEOLOGY, INC.

Date: 9-27-00 | Job No.: 00-1702

PLATE III



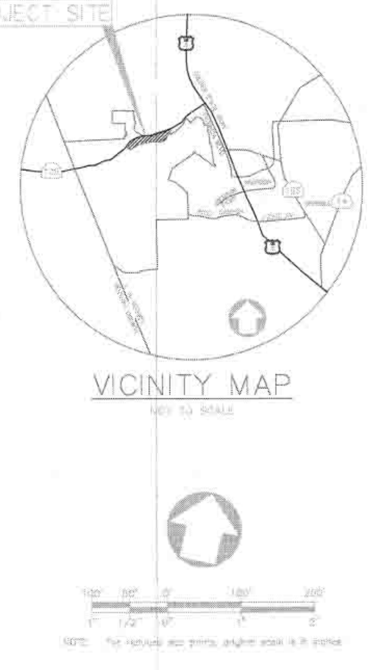
EASEMENTS:

OLD ITEM NUMBER
NEW TITLE REPORT NUMBER
NOT CALLED OUT ON MOST RECENT TITLE REPORT

LEGEND:

100 — LOT NO.
4,000 SF — LOT AREA (SQUARE FEET)
1210.5 — PAD ELEVATION
PROJECT BOUNDARY
RIGHT OF WAY
EASEMENT
FUTURE RIGHT OF WAY
PROPOSED CONTOUR
DAYLIGHT LINE
STORM DRAIN
SANITARY SEWER
WATER
RECLAIMED WATER
EXISTING WATER LINE
EXISTING CMP INLET
CATCH BASIN
WATER GATE VALVE
RIDGE LINE
CUT & FILL
SEA 23 RIVER CORRIDOR
FEMA
Q-CAP
OIL WELL GPS POSITIONED
OIL WELL DEPT. OF OIL AND GAS CALCULATED POSITION
OIL WELL DIGITIZED POSITION
OIL WELL DEPT. OF OIL AND GAS METAL DETECTOR POSITION
EXISTING OAK TREE
WATER SURFACE
TRAIL
BURIED BANK STABILIZATION
SIGHT DISTANCE LINE
DETAILS ON SHEET 2

PROJECT SITE



VICINITY MAP
NOT TO SCALE

LEGEND

Symbol	Description
af	Artificial Fill
Caf	Compacted Artificial Fill
ac	Asphalt Concrete
debris	Fragments of Portland Cement Concrete, Asphalt Concrete and Rebar mixed with Artificial Fill
Qal	Quaternary Alluvium; Locally Includes Thin Patches of Artificial Fill
Qoa	Quaternary Older Alluvium; Locally Includes Thin Patches of Artificial Fill
TQs	Saugus Formation
Tp	Pico Formation
CPT-128	Location of Cone Penetration Test
RW-14	Location of Rotary-Wash Boring (5 7/8" D) (Piezometers Installed In RW-1, RW-3, RW-7, RW-11 and RW-13)
HS-13	Location of Hollow-Stem-Auger Boring (8" OD)
BA-4R	Location of Bucket-Auger Boring (24" D)
T-27R	Location of Exploratory Backhoe Pit
T-38D	Location of Exploratory Backhoe Pit for Buried Debris Assessment
	Geologic Contact, Locally Concealed by Artificial Fill
	Strike and Dip of Bedding; Average Bedding Attitudes From Bucket-Auger Borings Are Shown In a Box
	Approximate Location of Anticline Axis; Showing Direction of Plunge; Largely Concealed by Surficial Material
3 — 3'	Geologic Cross Section
3H — 3H'	Hydrogeologic Cross Section
5'	Contours of Historic High Ground Water Depths
12-16'	Recommended Removal Depths for Alluvium and Artificial Fill; Limits of Removals Designated by Heavy Solid Line
18'	Depth of Weak Soils Indicated by Testing
Exxon NL&F No. 77	Location of Existing Oil Well
6948A B-6	Location of Water Well B-6 - Existing Agricultural Water Wells 6498A - LACFCD Wells; Some Locations Uncertain and/or Abandoned

PROJECT SUMMARY:

GROSS AREA — [illegible] Acres
TOTAL LOTS — 702
TOTAL D.U. — 1,444
EXISTING ZONING — SP (NEWHALL RANCH SPECIFIC PLAN)
PROPOSED ZONING — SP (NEWHALL RANCH SPECIFIC PLAN)
GENERAL PLAN LAND USE — SP (NEWHALL RANCH SPECIFIC PLAN)

LOT SUMMARY

LOT NUMBERS	TOTAL LOTS/BLDGS	TYPE (USE)	TYP. DIMENSION and SIZE	TOTAL D.U.
2–30, [illegible]	77/	S.F.D.	32' x 105' 3,360 S.F.	77
32–41, [illegible]	152/	S.F.D.	38' x 105' 3,990 S.F.	152
1, 31, [illegible]	142/	S.F.D.	50' x 105' 5,250 S.F.	142
42, 48, [illegible]	180/	S.F.D.	60' x 105' 6,300 S.F.	180
552–559, [illegible]	38/76	ATTACHED CONDOMINIUMS	1,208,594 S.F.	273
580–587, [illegible]	12/30	APARTMENTS (FOR LEASE)	740,146 S.F.	520
608–616	9/15	MIXED USES/ COMMERCIAL (FOR LEASE)	472,151 S.F.	
617–633	17/17	MIXED USES/ COMMERCIAL (FOR LEASE)	1,264,021 S.F.	
862–871	10/	MIXED USES/ COMMERCIAL (FOR LEASE)	554,630 S.F.	
634–640	7/	RECREATIONS	147,689 S.F.	
641–644, 702	5/	DRAINAGE (WATER QUALITY CONTROL BASIN)	34,035 S.F.	
872, 583, 864	3/	PARK SITE	927,026 S.F.	
873	1/	SCHOOL SITE	341,817 S.F.	
645–661, [illegible]	43/	OPEN SPACE	1,980,357 S.F.	
TOTAL	702/140			1,444

GENERAL NOTES:

1. REQUEST PERMISSION TO FILE PARCEL MAP:
   a. 20 ACRE MINIMUM PARCELS WITH NO REQUIRED PUBLIC IMPROVEMENTS.
   b. SUB-TWENTY (20) ACRE PARCELS WITH PUBLIC ACCESS AND UTILITIES.
2. UNIT PHASING IS REQUESTED.
3. PERMISSION TO ADJUST LOT LINES IS REQUESTED (ACREAGES ARE APPROXIMATE).
4. PERMISSION TO RECORD ADDITIONAL OPEN SPACE LOTS IS REQUESTED.
5. PERMISSION TO RECORD JOINT ACCESS EASEMENTS (28' WIDE) AS LOTS REQUESTED.
6. REQUEST PERMISSION TO COMBINE LOTS.
7. PROPOSED STREET GRADING IS APPROXIMATE ONLY AND SUBJECT TO ADJUSTMENTS PENDING DETERMINATION OF FINAL DEVELOPMENT LAYOUT AND PLANS.
8. GRADING ±10 FT.
9. REQUEST PERMISSION TO MASS GRADE.
10. TOPO COMPILED 6/25/98 FROM DATA FLOWN 6/26/98.
11. REQUEST PERMISSION TO ADJUST UNIT TYPICALS AND BUILDINGS FOOTPRINTS WITHIN THE MINIMUM SETBACK REQUIREMENTS.
12. LOCATION OF TRAILS TO BE FINALIZED PRIOR TO FINAL MAP APPROVAL.
13. ALL DIMENSIONS SHOWN ARE APPROXIMATE.
14. MODIFIED STREET CROSS-SECTIONS AS SHOWN ON VESTING TENTATIVE TRACT MAP ARE REQUESTED. HOWEVER, PERMISSION IS SOUGHT TO CONSTRUCT STANDARD AND ALTERNATE STREET CROSS-SECTIONS AT THE OPTION OF THE SUBDIVIDER.
15. DEVELOPER REQUESTS THE ABILITY TO REPLACE TYPICAL STREET SECTIONS FOR "D", "G" TO "O", AND "T" TO "X" STREETS WITH MODIFIED LOCAL STREET (58' R/W), WITH PARKING BOTH SIDES OF STREET.
16. REQUEST PERMISSION TO CONSTRUCT ROLLED CURB & GUTTER IN STREETS IN FRONT OF ALL RESIDENTIAL LOTS EXCEPT ON THE SPINE ROAD.
17. WATER QUALITY BASINS ARE CONCEPTUAL ONLY. WATER QUALITY MEASURES WILL BE IMPLEMENTED AT THE DISCRETION OF THE DEVELOPER.

SPECIAL NOTES:

1. LOCATION & SIZE OF WATER QUALITY BASINS ARE APPROXIMATE. SIZES ARE DEPENDENT ON THE AMOUNT OF WATER QUALITY FILTRATION PROVIDED IN UPSTREAM PROJECTS.
2. DEPENDING ON WATER FILTER SIZE, DURING FINAL DESIGN, ANY EXCESS LOT AREA CAN BE INCORPORATED INTO ADJACENT LOTS AND THEIR LAND USE.
3. THE WATER QUALITY BASINS SHALL BE DEDICATED TO THE COUNTY WHEN COMPLETED AND ACCEPTED.

SURVEY NOTES:

VERTICAL DATUM: LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS BENCHMARK DESCRIBED AS FOLLOWS: [illegible] 1995 ADJUSTMENT (NAVD 1988) ELEVATION = [illegible]

THERE IS APPROXIMATELY 2.3 FEET DIFFERENCE BETWEEN PREVIOUS COUNTY OF LOS ANGELES DATUMS BASED UPON NAVD 1929 AND NAVD 1988 (NAVD 1988 IS 2.3 FEET HIGHER THAN NAVD 1929).

AERIAL PLANIMETRY: THIS SURVEY WAS PREPARED BY PHOTOGRAMMETRIC PROCESSES, UTILIZING AERIAL PHOTOGRAPHY DATED SEPTEMBER 19, 1996. THE OUTLINE OF BUILDINGS AND OTHER ROOFED IMPROVEMENTS MAY INCLUDE EAVES, CANOPIES AND BALCONIES, SINCE BUILDINGS BELOW THESE ITEMS ARE NOT VISIBLE TO THE CAMERA.

TOPOGRAPHY: BY PHOTOGRAMMETRIC PROCESSES FROM LIDAR IMAGING DATED JUNE 24–25, 1998, AND COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS.

CONTOUR INTERVAL: 2 FOOT

SHEET INDEX

1	VESTING TENTATIVE TRACT MAP - TRACT NO. 53108 (1" = 100')
2	20 ACRE SUB - 20 ACRE PARCEL PHASING & DETAIL SHEET

REV:
DATE: JUNE 11, 2000

LEGAL DESCRIPTION:
PARCELS 14, 15, 16, 17 OF PARCEL MAP NO. 24500-01 PMB 293-34 / 67, RECORDS OF LOS ANGELES COUNTY.

REGISTERED PROFESSIONAL ENGINEER — JASON H. FUKUMITSU — No. 40695 — Exp. 3-31-03 — CIVIL — STATE OF CALIFORNIA

PSOMAS
11444 West Olympic Boulevard, Suite 750
West Los Angeles, CA 90064-1549
(310) 954-3700 (310) 954-3777 (FAX)

JASON H. FUKUMITSU R.C.E. NO. 40695 DATE

DESIGNED: JFH
DRAFTED: MD/DB
CHECKED: JFH/WY

OWNER/DEVELOPER:
NEWHALL RANCH
23823 WEST VALENCIA BOULEVARD
VALENCIA, CALIFORNIA 91335
TELEPHONE: (661) 255-4000
REPRESENTATIVE: MR. DAVID CROWDER

MAJOR LAND DIVISION
VESTING TENTATIVE TRACT MAP
NO. 53108

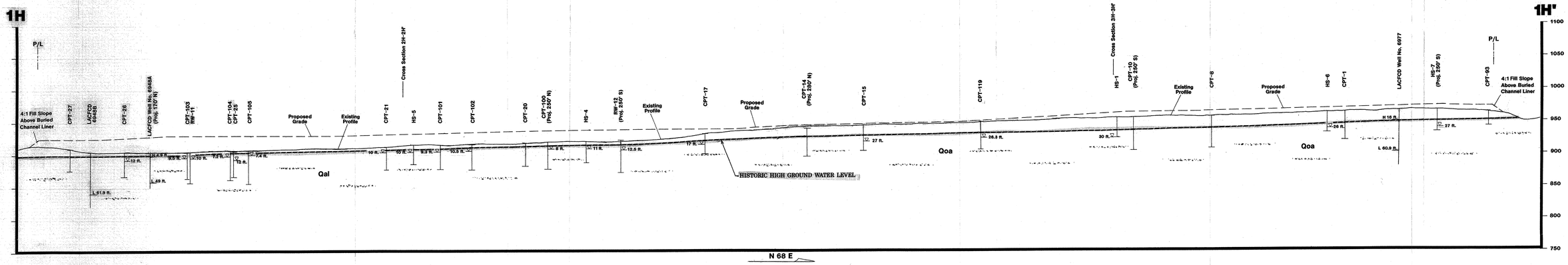
4.1-C

IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES — STATE OF CALIFORNIA

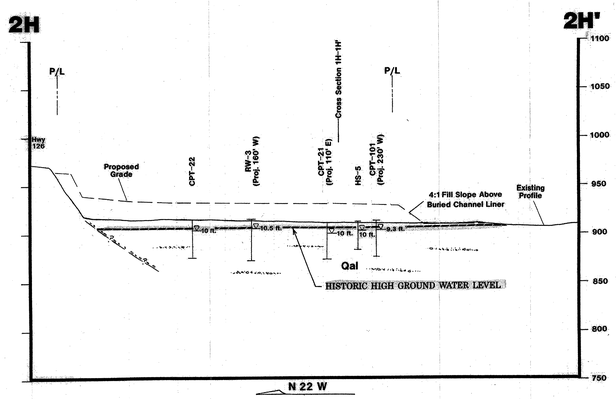
PROJECT NO. 1NRC0107.00
SHEET 1 OF 2

RV01-01

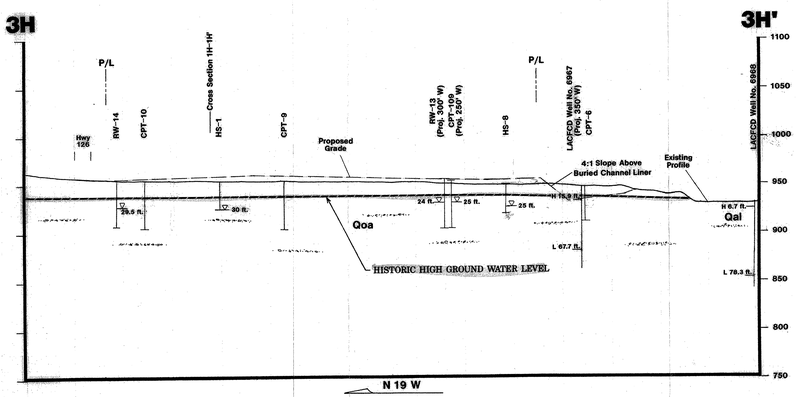
HYDROGEOLOGIC CROSS SECTION

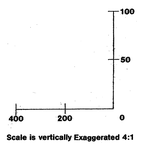


HYDROGEOLOGIC CROSS SECTION



HYDROGEOLOGIC CROSS SECTION

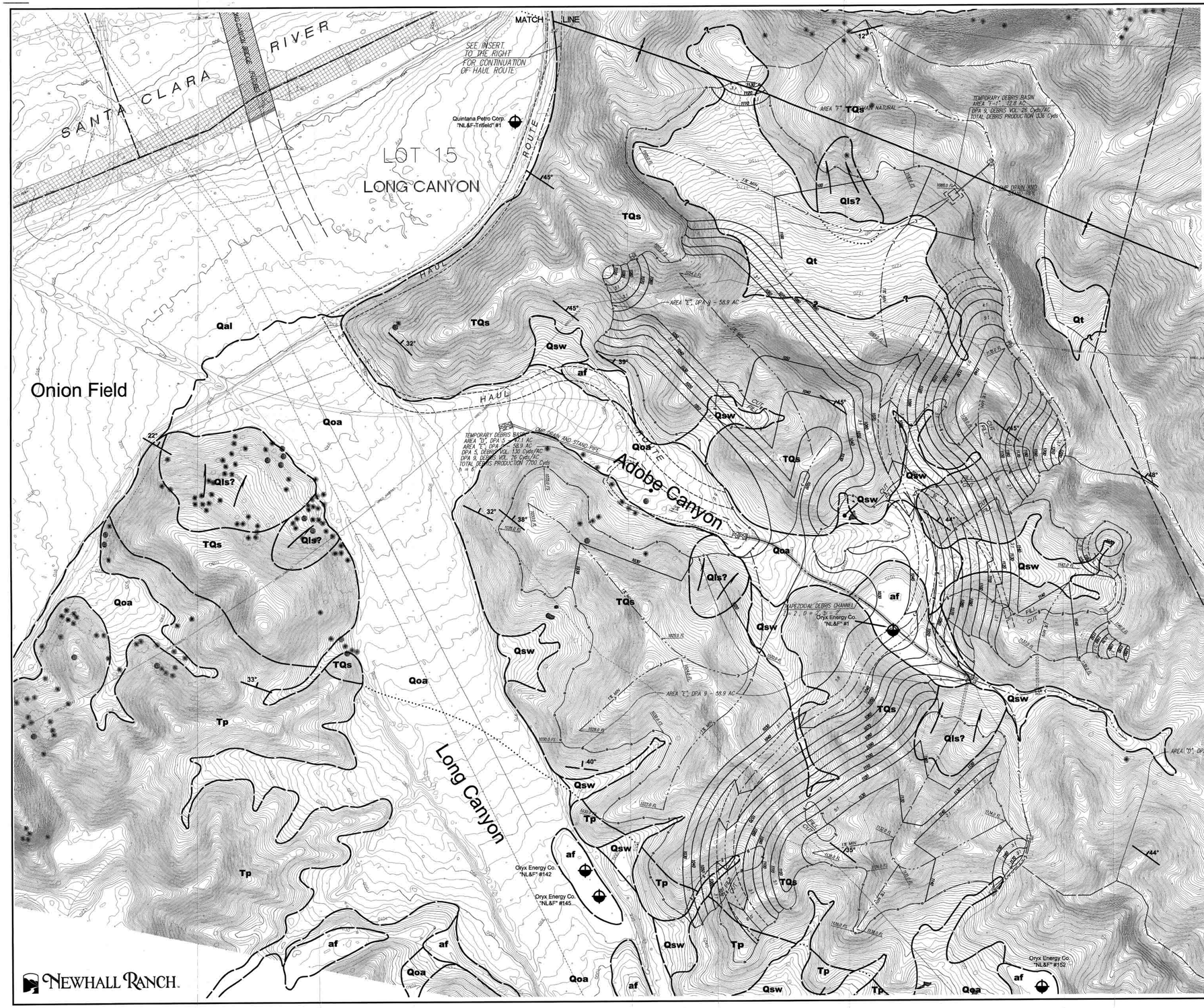


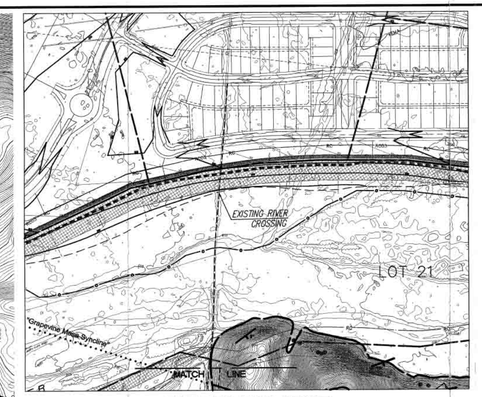


NOTE: Historic High Ground Water Levels Interpolated from measured ground water, historic LACFCD Well Data, and Robson (1972)

ALLAN E. SEWARD
ENGINEERING GEOLOGY, INC.
SINCE 1968

Date: 9/27/00		Job No.: 00-1702R-4	
Scale: H: 1" = 200' V: 1" = 50'	Geology by: BJS Drawn by: DGG/BJS	Revised	4.1-D





SEE MATCHING LINE TO THE LEFT

SCALE 1"=200'

ALLAN E. SEWARD ENGINEERING GEOLOGY, INC.
Geologic And Geotechnical Consultants

Geologic/Geotechnical Map

Date: 11/14/03	Job No.: 03-2022-9
Scale: 1" = 100'	CAD File: Geologic/Geotechnical Map - AC
PLATE I	Geology by: Staff / Drawn By: GSD / Revised:

LEGEND

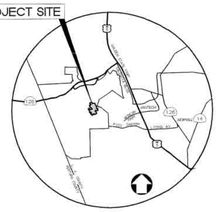
af	Artificial Fill
Qsw	Quaternary Slopewash Deposits
Qal	Quaternary Alluvium
Qoa	Quaternary Older Alluvium
Qls?	Quaternary Landslide, quarted where uncertain
Qt	Quaternary Terrace Deposits
TQs	Lower Saugus Formation
Tp	Pico Formation
	Geologic Contact; Dotted where concealed; Queried where inferred
	Trace of Syncline, showing direction of plunge; Dotted where concealed
	Strike and Dip of Bedding
	Approximate Strike and Dip of Bedding
	Approximate Location of Oil Well

LEGEND:

- EXISTING LOT LINE
- EXISTING EASEMENT
- 1100 PROPOSED CONTOUR
- DAYLIGHT LINE
- CUT & FILL
- FLOW LINE
- BENCH
- SWALE
- HAUL ROUTE ACCESS ROAD
- RCC3 RIVER CORRIDOR-2003 (FORMERLY SEA 23)
- RC RIVER CORRIDOR (FORMERLY SEA 23)
- FEMA FEMA
- QSD Q-CAP
- DEBRIS TRIBUTARY LIMIT
- DEBRIS BASIN
- OIL WELL GPS POSITIONED
- OIL WELL DEPT. OF OIL AND GAS CALCULATED POSITION
- OIL WELL DIGITIZED POSITION
- OIL WELL DEPT. OF OIL AND GAS METAL DETECTOR POSITION
- EXISTING OAK TREE
- RIP-RAP
- SPINE FLOWER

RAW EARTHWORK VOLUMES	
RAW CUT	6,580,000 Cubic Yards
RAW FILL	238,850 Cubic Yards
EXPORT	6,341,150 Cubic Yards

PROJECT SITE



VICINITY MAP

NOT TO SCALE

FEET 100 50 0 100 200

INCHES 1 1/2 0 1 2

Adobe Canyon

PRELIMINARY BULK GRADING STUDY

4.1-E

PSOMAS

DATE: 10/8/03 REVISED ON: 10/21/03
JOB No: 1NRC0107.05 SHEET 1 OF 1

RV0139-01.dwg

NEWHALL RANCH

ALLAN E. SEWARD ENGINEERING GEOLOGY, INC.
Geological And Geotechnical Consultants

Geologic/Geotechnical Map

Date: 11/14/03		Job No.: 03-2022-9
Scale: 1" = 100'		CAD File: Geologic/Geotechnical Map-CC
PLATE II	Geology by: Staff Drawn by: GSD	Revised:

LEGEND

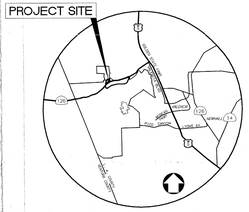
af	Artificial Fill
Qsw	Quaternary Slopewash Deposits
Qal	Quaternary Alluvium
Qoa	Quaternary Older Alluvium
Qls?	Quaternary Landslide, queried where uncertain
Qt	Quaternary Terrace Deposits
TQs	Lower Saugus Formation
Tp	Pico Formation
	Geologic Contact; Dotted where concealed, Queried where inferred
	Trace of Anticline, showing direction of plunge; Dotted where concealed
14-21°	Strike and Dip Range of Bedding
	Approximate Location of Oil Well

LEGEND:

- EXISTING PROPERTY LINE
- PROPERTY BOUNDARY
- EXISTING LOT LINE
- EXISTING EASEMENT
- 1000 — PROPOSED CONTOUR
- DAYLIGHT LINE
- CUT & FILL (CUT / FILL)
- FLOW LINE
- BENCH
- SWALE
- HAUL ROUTE
- RCO3 — RIVER CORRIDOR-2003 (FORMERLY SEA 23)
- RC — RIVER CORRIDOR (FORMERLY SEA 23)
- FEMA — FEMA
- OSO — O-CAP
- DEBRIS BASIN
- OIL WELL GPS POSITIONED
- OIL WELL DEPT. OF OIL AND GAS CALCULATED POSITION
- OIL WELL DIGITIZED POSITION
- OIL WELL DEPT. OF OIL AND GAS METAL DETECTOR POSITION
- EXISTING OAK TREE
- RIP-RAP
- Qal — GEOLOGY

RAW EARTHWORK VOLUMES	
RAW CUT	1,519,000 Cubic Yards
RAW FILL	5,900 Cubic Yards
EXPORT	1,513,200 Cubic Yards

PROJECT SITE



VICINITY MAP
NOT TO SCALE

FEET 100 50 0 100 200
INCHES 1 1/2 0 1 2

Chiquito Canyon
PRELIMINARY BULK GRADING STUDY

4.1-F

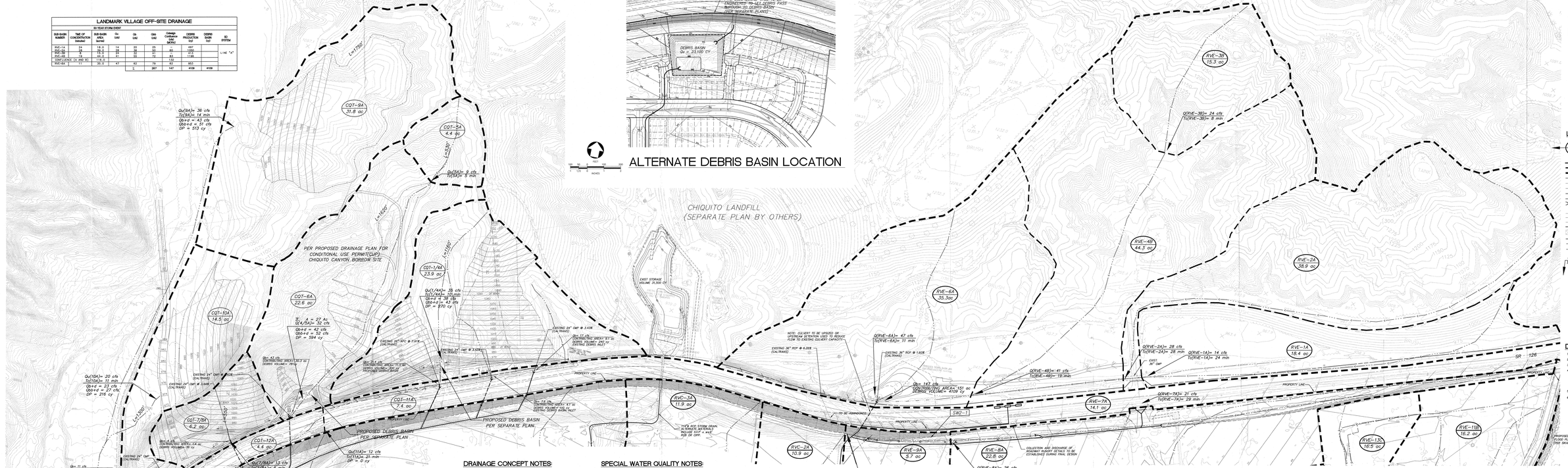
PSOMAS

DATE: 10/8/03 REVISED ON: 10/21/03
JOB No: 1NRC0107.05 SHEET 1 OF 1

LANDMARK VILLAGE OFF-SITE DRAINAGE

50-YEAR STORM EVENT

SUB-BASIN NUMBER	TIME OF CONCENTRATION (minutes)	SUB-BASIN AREA (acres)	Qu (cfs)	Qb (cfs)	Qbb (cfs)	Drainage Coefficient (cfs/ac)	DEBRIS PRODUCTION (cy)	DEBRIS BASIN (cy)	SD SYSTEM
RVE-1A	24	18.4	14	20	25	441	441		
RVE-1B	24	16.2	24	35	41	441	441		
RVE-2A	9	38.9	41	60	72	63	1,176		LINE "A"
RVE-2B (AS ADD'D)	9	19.5				63			
RVE-3A	11	35.3	47	62	76	62	653		
				Σ	267	147	4108	4108	


ALTERNATE DEBRIS BASIN LOCATION
PROPOSED SOUND WALL TO BE CONSTRUCTED TO ALLOW DEBRIS PASS THROUGH TO DEBRIS BASIN (SEE SEPARATE PLANS)
DEBRIS BASIN Qv = 23,100 CY
CHIQUITO LANDFILL (SEPARATE PLAN BY OTHERS)
PER PROPOSED DRAINAGE PLAN FOR CONDITIONAL USE PERMIT(CUP) CHIQUITO CANYON BURBOW SITE
PROPOSED DEBRIS BASIN PER SEPARATE PLAN
EXIST STORAGE VOLUME 31,500 CY
NOTE: CULVERT TO BE UPSIZED OR UPSTREAM DETENTION USED TO REDUCE FLOW TO EXISTING CULVERT CAPACITY
COLLECTION AND DISCHARGE OF UPSTREAM DRAINAGE TO BE ESTABLISHED DURING FINAL DESIGN
TO BE ABANDONED
PROPERTY LINE
SR-126
PROPOSED 50 YEAR CAPITAL FLOOD PLAIN LIMIT PER SKANDI 17
CQT-9A 31.8 ac
CQT-5A 4.4 ac
CQT-1A 23.9 ac
CQT-6A 22.6 ac
CQT-10A 14.5 ac
CQT-11A 7.4 ac
CQT-7/8A 6.2 ac
CQT-12A 4.4 ac
RVC-2A 10.9 ac
RVE-3A 11.9 ac
RVE-9A 5.7 ac
RVE-8A 22.8 ac
RVE-7A 14.1 ac
RVE-6A 35.3ac
RVE-4B 44.3 ac
RVE-3B 15.3 ac
RVE-2A 38.9 ac
RVE-1A 18.4 ac
RVE-11B 16.2 ac
RVE-13A 16.5 ac
RVW-2A 19.7 ac
RVC-2B 39.3 ac
RVW-1A 10.8 ac
Qu(9A)= 36 cfs Tc(9A)= 14 min Qb+d = 43 cfs Qbb+d = 51 cfs DP = 313 cy
Qu(5A)= 9 cfs Tc(5A)= 5 min
Qu(1/4A)= 35 cfs Tc(1/4A)= 10 min Qb+d = 38 cfs Qbb+d = 43 cfs DP = 970 cy
Qu(10A)= 20 cfs Tc(10A)= 11 min Qb+d = 23 cfs Qbb+d = 27 cfs DP = 216 cy
Qu(11A)= 12 cfs Tc(11A)= 21 min DP = 0 cy
Qu(7/8A)= 13 cfs Tc(7/8A)= 5 min DP = 0 cy
Qu(12A)= 9 cfs Tc(12A)= 12 min DP = 0 cy
Q(RVE-6A)= 47 cfs Tc(RVE-6A)= 11 min
Q(RVE-9A)= 11 cfs Tc(RVE-9A)= 11 min
Q(RVE-8A)= 26 cfs Tc(RVE-8A)= 30 min
Q(RVE-7A)= 21 cfs Tc(RVE-7A)= 29 min
Q(RVE-4B)= 41 cfs Tc(RVE-4B)= 19 min
Q(RVE-2A)= 28 cfs Tc(RVE-2A)= 28 min
Q(RVE-1A)= 14 cfs Tc(RVE-1A)= 24 min
Q(RVE-3B)= 24 cfs Tc(RVE-3B)= 8 min
Q(RVE-13A)= 151 cfs DEBRIS VOLUME= 4109 cy
SW2-1
EXIST 36" CMP
EXIST 30" CMP
EXISTING 24" CMP @ 3.43%
EXISTING 36" RCP @ 6.26%
EXISTING 36" RCP @ 1.63%
EXISTING 24" CMP @ 1.94%
EXISTING 24" CMP @ 2.12%
EXISTING 24" CMP @ 3.43%
EXISTING 24" CMP
EXISTING 24" CMP (CALTRANS)
EXISTING 24" CMP (CALTRANS)
EXISTING 24" CMP @ 2.12%
EXISTING 24" CMP @ 1.94%
EXISTING 24" CMP @ 3.43%
EXISTING 24" CMP (CALTRANS)
EXISTING 24" CMP (CALTRANS)
CULVERT TO BE UPSIZED OR ADDITIONAL DETENTION PROVIDED AS NEEDED
TO BE ABANDONED
TO BE ABANDONED
EXIST DURD
11"X4 RCP STORM DRAIN INSTALLED AT STATED DEPTH BELOW & WITH SUB CIP DRPP.
Qv= 27 cfs CONTRIBUTING AREA= 0.7 ac DEBRIS VOLUME= 0 CY
Qv= 42 cfs CONTRIBUTING AREA= 1.4 ac DEBRIS VOLUME= 0 CY
Qv= 52 cfs CONTRIBUTING AREA= 1.7 ac DEBRIS VOLUME= 0 CY
Qv= 41 cfs CONTRIBUTING AREA= 1.4 ac DEBRIS VOLUME= 0 CY
Qv= 20 cfs CONTRIBUTING AREA= 0.8 ac DEBRIS VOLUME= 0 CY
Qv= 23 cfs CONTRIBUTING AREA= 0.9 ac DEBRIS VOLUME= 0 CY
Qv= 27 cfs CONTRIBUTING AREA= 1.1 ac DEBRIS VOLUME= 0 CY
Qv= 41 cfs CONTRIBUTING AREA= 1.4 ac DEBRIS VOLUME= 0 CY
Qv= 47 cfs CONTRIBUTING AREA= 1.6 ac DEBRIS VOLUME= 0 CY
Qv= 37 cfs CONTRIBUTING AREA= 0.7 ac DEBRIS VOLUME= 0 CY
Qv= 27 cfs CONTRIBUTING AREA= 0.5 ac DEBRIS VOLUME= 0 CY
Qv= 41 cfs CONTRIBUTING AREA= 0.8 ac DEBRIS VOLUME= 0 CY
Qv= 47 cfs CONTRIBUTING AREA= 0.9

DRAINAGE CONCEPT NOTES:

1. HYDROLOGY INFORMATION AND STORM DRAIN ALIGNMENTS SHOWN ARE NOT NECESSARILY APPROVED.
2. ALL STREET DRAINAGE REQUIREMENTS WILL COMPLY WITH THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
3. DEDICATION OF THE NECESSARY EASEMENTS FOR THE STORM DRAIN SYSTEM SHOWN WILL BE TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
4. PAVED VEHICULAR ACCESS WILL BE PROVIDED TO ALL INLETS, OUTLETS AND BASINS TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
5. APPROVAL OF THE DRAINAGE CONCEPT DOES NOT CONSTITUTE DETERMINATION THAT THE OFFSITE IMPROVEMENTS ARE REQUIRED WITHIN THE MEANING OF GOVERNMENT CODE SECTION 66462.5, (EXCEPT AS NOTED).
6. DELINEATE THE FLOOD HAZARD AREA AND DEDICATE TO THE COUNTY OF LOS ANGELES THE RIGHT TO RESTRICT BUILDING WITHIN THAT AREA ON THE FINAL MAP.
7. THE PROPOSED WATER QUALITY BASIN, SWALES, DEBRIS BASINS AND STORM DRAIN FACILITIES WILL BE MAINTAINED BY LOS ANGELES COUNTY.
8. BECAUSE THE WATER QUALITY BASIN, AND SWALES PROVIDE AN OUTLET, AND NO PERCOLATION CONSIDERED, A 7-DAY PERCOLATION TEST WILL NOT BE REQUIRED.
9. FLOODWAY MAP WILL BE AMENDED AS PART OF THE RIVER ANALYSIS BY PACE ENGINEERING; TO BE SUBMITTED SEPARATELY.
10. CLOMR UNDER PREPARATION BY OTHERS; TO BE SUBMITTED SEPARATELY.
11. WHEN DUPLICATE DATA SHOWN ON BOTH TABLE & PLAN, PLAN DATA SHOWN FOR INFORMATIONAL PURPOSES ONLY.
12. ALL RIVER SWALES TO HAVE EMERGENCY OVERFLOW SPILLWAY FOR FLOOD DISCHARGE.
13. ENCROACHMENT INTO EXISTING MAIN LINE FLOODWAY AND FEMA ZONE "A" WILL BE MITIGATED.
14. PROPOSED DRAINAGE FACILITIES WITHIN CALTRANS R/W SHALL BE MAINTAINED BY CALTRANS.

LANDMARK VILLAGE (WEST) POST PROJECT DRAINAGE

50-YEAR STORM EVENT

SUB-BASIN NUMBER	TIME OF CONCENTRATION (minutes)	SUB-BASIN AREA (acres)	Qdesign (cfs)	Qdesign Confluence (cfs) (MORA)	SD SYSTEM
RVW-1A RVW-2A	14 14	11.0 15.0	17 28	— 33	LINE "L"
			TOTAL	33	

LANDMARK VILLAGE (CENTER) POST PROJECT DRAINAGE

50-YEAR STORM EVENT

SUB-BASIN NUMBER	TIME OF CONCENTRATION (minutes)	AREA (acres)	Qdesign (cfs)	Qdesign Confluence (cfs) (MORA)	SD SYSTEM
RVC-2A RVC-3A RVC-7A RVC-8A RVC-12C	9 15 27 14 18	11.0 12.0 10.0 5.0 3.0	18 20 13 8 3	— — — — 63	LINE "G"
RVC-11B RVC-13C	11 12	16.0 2.0	30 3	— 33	LINE "H"
RVC-17C RVC-18C	19 14	2.0 17.0	2 29	— 31	LINE "I"
RVC-21D	16	3.0	3	3	LINE "J"
RVC-22D RVC-23E RVC-24E	12 21 22	3.0 39.0 7.0	7 53 12	— — 72	LINE "K"
			TOTAL	202	

LANDMARK VILLAGE (EAST) POST PROJECT DRAINAGE

50-YEAR STORM EVENT

SUB-BASIN NUMBER	TIME OF CONCENTRATION (minutes)	SUB-BASIN AREA (acres)	Qdesign (cfs)	Qdesign Confluence (cfs) (MORA)	SD SYSTEM
RVE-1A/6A IS OFF-SITE PER TABLE BELOW				147	
RVE-7A RVE-8A RVE-9A	29 30 11	14.0 23.0 6.0	21 26 22	— — 198	LINE "A"
RVE-11B	14	16.0	27	27	LINE "B"
RVE-12C RVE-13C	15 19	1.0 17.0	1 25	— 26	LINE "B" LINE "C"
RVE-16D RVE-17D	20 15	2.0 18.0	2 30	— 32	LINE "D"
RVE-20E RVE-21F	16 7	18.0 1.0	28 1	— 29	LINE "E"
RVE-24F RVE-25F	14 16	2.0 14.0	2 22	— 24	LINE "F"
RVE-27B RVE-28B RVE-29B	12 10 14	7.0 5.0 1.0	15 11 1	— — 27	LINE "M"
			TOTAL	363	

LANDMARK VILLAGE OFF-SITE DRAINAGE

50-YEAR STORM EVENT

SUB-BASIN NUMBER	TIME OF CONCENTRATION (minutes)	SUB-BASIN AREA (acres)	Qu (cfs)	Qb (cfs)	Qbb (cfs)	Qdesign Confluence (cfs) (MORA)	DEBRIS PRODUCTION (cy)	DEBRIS BASIN (cy)	SD SYSTEM
RVE-1A	24	18.0	14	20	25	–	497		LINE "A"
RVE-2A	28	39.0	28	38	50	60	1050		
RVE-3B	8	15.0	24	32	41	–	413		
RVE-4B	19	44.0	41	55	72	83	1196		
CONFLUENCE (A AND B)		116.0				132			
RVE-6A	11	35.0	47	62	79	62	953		
				TOTAL	267	147	4109	4109	

REFERENCES:

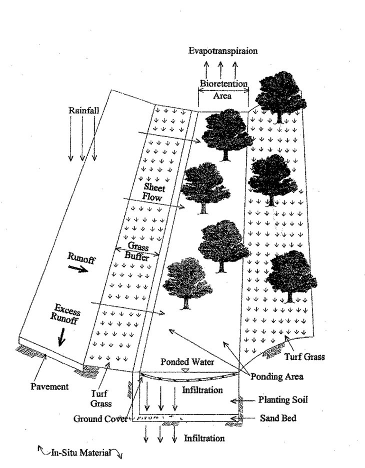
* THIS WAS CALCULATED BY SIKAND AND CAN BE FOUND THE NEWHALL RANCH SPECIFIC PLAN MASTER HYDROLOGY AND DRAINAGE CONCEPT, DATED 06/28/99. APPENDED FOR REFERENCE.

** DEBRIS GENERATED WITHIN THESE SUB-BASINS WILL BE COLLECTED IN DEBRIS BASINS UPSTREAM OF S.R. 126 AND WILL NOT ENTER THE RIVER VILLAGE DEVELOPMENT. THIS IS IN ACCORDANCE WITH THE NEWHALL RANCH SPECIFIC MASTER PLAN HYDROLOGY AND DRAINAGE CONCEPT - NORTHERLY SIDE DRAIN SYSTEMS PREPARED BY SIKAND AND DATED 06/28/99.

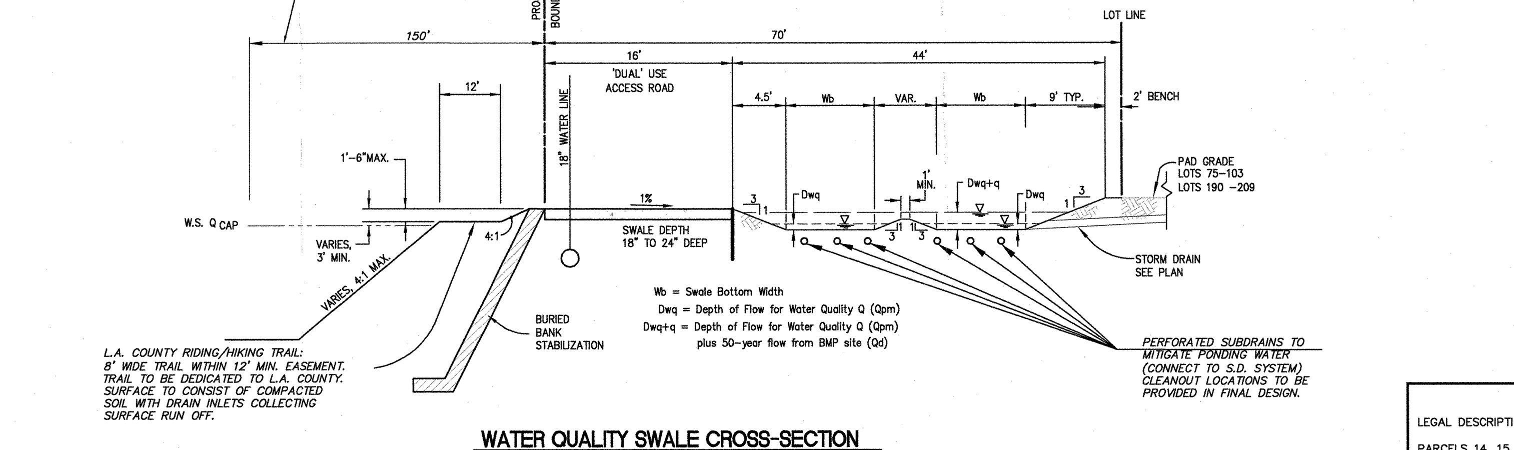
*** SIKAND 50-YEAR FLOODPLAIN PER DRAINAGE CONCEPT PLAN VTTM NO. 53108 - EXHIBIT2_SC_EX60.DWG

SPECIAL WATER QUALITY NOTES:

1. LOCATION, SIZE AND NUMBER OF WATER QUALITY BASIN, SWALES AND FITER STRIP ARE APPROXIMATE. SIZES ARE DEPENDENT ON THE AMOUNT OF WATER QUALITY TREATMENT PROVIDED IN UPSTREAM PROJECTS.
2. DEPENDING ON WATER QUALITY FACILITY SIZE, DURING FINAL DESIGN, ANY EXCESS LOT AREA CAN BE INCORPORATED INTO ADJACENT LOTS AND THEIR LAND USE.
3. THE WATER QUALITY BASIN, SWALES AND FILTER STRIP SHALL BE DEDICATED TO THE COUNTY WHEN COMPLETED AND ACCEPTED.
4. CDS UNIT OR OTHER DEPARTMENT APPROVED EQUIVALENT BMPS MAY BE SUBSTITUTED AS APPROPRIATE DURING FINAL DESIGN.
5. WATER QUALITY FACILITIES ASSOCIATED WITH SR 126 ARE PER SEPARATE PLAN BY OTHERS.

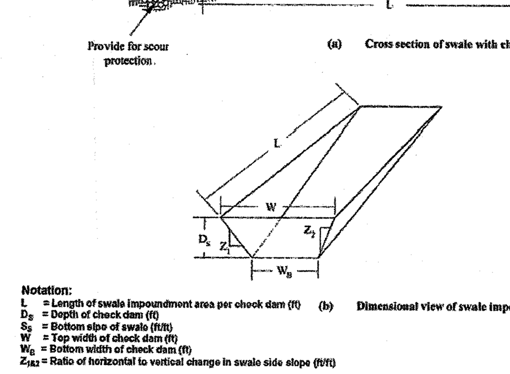


BIORETENTION DETAIL
N.T.S.



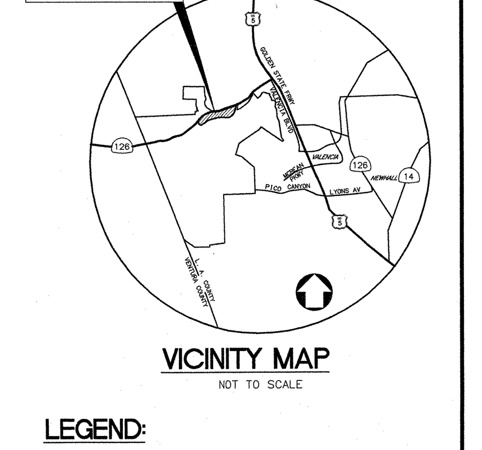
WATER QUALITY SWALE CROSS-SECTION
N.T.S.

NOTE: For reduced size prints, original scale is in inches.



Notation:
L = Length of swale impoundment area per check dam (ft)
D_s = Depth of check dam (ft)
S_s = Bottom slope of swale (ft/ft)
W = Top width of check dam (ft)
W_B = Bottom width of check dam (ft)
$Z_{1\&2}$ = Ratio of horizontal to vertical change in swale side slope (ft/ft)

PROPOSED VEGETATED SWALE DETAILS
N.T.S.



LEGEND:

PROJECT BOUNDARY; SUB-BASIN BOUNDARY; DRAINAGE AREA BOUNDARY; RIGHT OF WAY; EASEMENT; PROPOSED CONTOUR; DAYLIGHT LINE; STORM DRAIN; EXISTING CMP INLET; CATCH BASIN; FEMA LINE; LOS ANGELES COUNTY FLOODWAY; Q-CAP (Existing) PER SEPARATE PLANS; Q-CAP (Proposed) PER SEPARATE PLANS; BURIED BANK STABILIZATION; DEBRIS BASIN CONTRIBUTING AREA; FLOWPATH; DEBRIS FLOWPATH; PROPOSED DEBRIS FLOWPATH

Q(sub)= 9 cfs — POST DEVELOPMENT SUBAREA Qdesign
Tc(sub)= 15 min — POST DEVELOPMENT TIME OF CONCENTRATION

BIORETENTION; PRE-TREATMENT/TRASH COLLECTION; ON-SITE STORM DRAIN; OFF-SITE STORM DRAIN; VEGETATED TREATMENT SWALE; TREATED RUNOFF AND FLOOD DISCHARGE POINTS FOR PROJECT AREA; FLOOD DISCHARGE POINTS FOR PROJECT AREA; EXTENDED DETENTION WQ BASIN; VEGETATED CONVEYANCE SWALE (SUPPLEMENTAL TREATMENT); VEGETATED PRE-TREATMENT/CONVEYANCE DITCH

RVC-00X / 0.0 ac — SUB-BASIN ID NUMBER / SUB-BASIN AREA (ac)

Q	Q unburned/develop
Qd	Q developed
Qb	Q burned
Qbb	Q burned+bulked
DP	DEBRIS PRODUCTION

DRAINAGE DESIGN CRITERIA:

1. 50-YEAR 24-HOUR ISOHYET: 5.8
2. SOIL TYPE: 020
3. DESIGN STORM: 50 YEAR RETURN PERIOD
4. PERCENT IMPERVIOUS VALUES: SINGLE FAMILY - 42%, MULTI-FAMILY - 68%, COMMERCIAL - 92%, SCHOOL - 82%, OPEN SPACE - 0%, PARK - 15%, ROADWAY - 100%
5. DPA= 09
6. BULK FACTOR= 1.27

HYDROLOGY PLAN

PROJECT AREA

REV: SEPT 21, 2005
DATE: SEPT. 15, 2004

LEGAL DESCRIPTION:
PARCELS 14, 15, 16, 17 OF PARCEL MAP NO. 24500-01 PMB 293-34 / 67, RECORDS OF LOS ANGELES COUNTY.

REGISTERED PROFESSIONAL ENGINEER ROSS W. BARKER No. C-32799 Exp. 06/30/06 CIVIL STATE OF CALIFORNIA

PSOMAS
28470 Avenue Stanford, Suite 300
Santa Clarita, CA 91355-1460
(661) 219-6000 (661) 775-2718 (FAX)

ROSS W. BARKER R.C.E. NO. C32799 DATE

DESIGNED: AM/MH/EW
DRAFTED: AC/ML
CHECKED: MG/RB

OWNER/DEVELOPER:
NEWHALL RANCH
23823 WEST VALENCIA BOULEVARD
VALENCIA, CALIFORNIA 91335
TELEPHONE: (661) 255-4000
REPRESENTATIVE: MR. FRED MACMURDO

DRAINAGE CONCEPT
VESTING TENTATIVE TRACT MAP
NO. 53108
NEWHALL RANCH - LANDMARK VILLAGE
IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

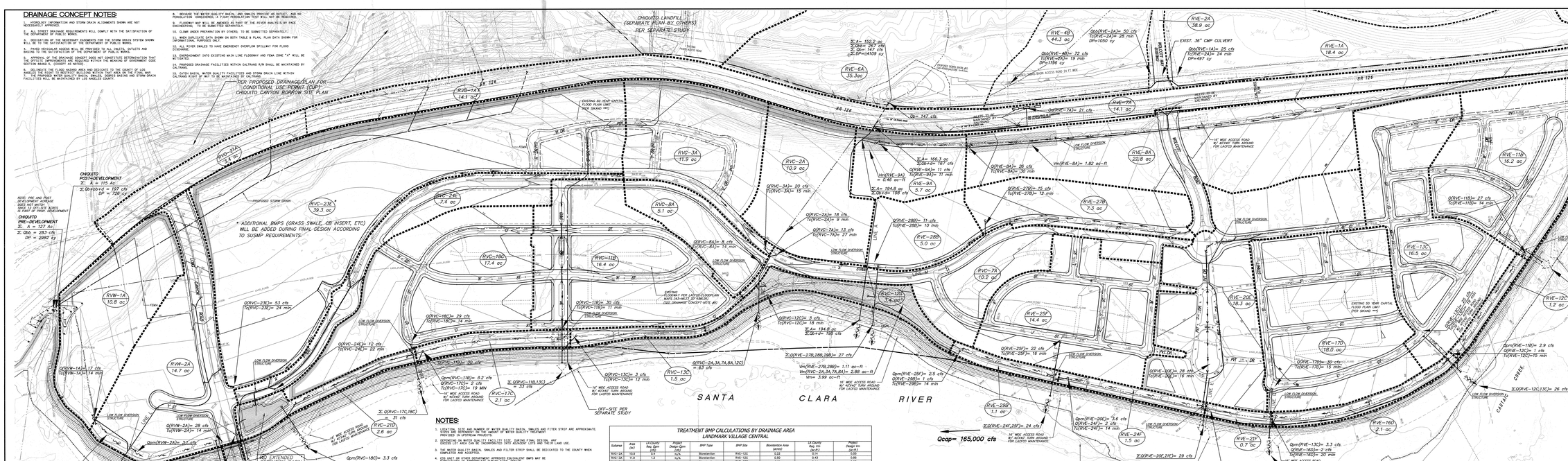
PROJECT NO. 1NRC0107.08
SHEET 2 OF 5
RV062-02

4.2-B

Plotted: 09/21/05 09:38:18 V:\Newhall\PROJDATA\53108-MP\ENGR\MASTDES\VTTM\P\RV062-02.DWG ewinata

DRAINAGE CONCEPT NOTES:

1. HYDROLOGY INFORMATION AND STORM DRAIN ALIGNMENTS SHOWN ARE NOT NECESSARILY APPROVED.
2. ALL STREET DRAINAGE REQUIREMENTS WILL COMPLY WITH THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
3. DEDICATION OF THE NECESSARY EASEMENTS FOR THE STORM DRAIN SYSTEM SHOWN WILL BE TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
4. PAVED VEHICULAR ACCESS WILL BE PROVIDED TO ALL INLETS, OUTLETS AND BASINS TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
5. APPROVAL OF THE DRAINAGE CONCEPT DOES NOT CONSTITUTE DETERMINATION THAT ANY PROPERTY DAMAGE OR DEBRIS ENTRAPMENT WITHIN THE MEANING OF GOVERNMENT CODE SECTION 66462.5, EXCEPT AS NOTED.
6. DELINEATE THE FLOOD HAZARD AREA AND DEDICATE TO THE COUNTY OF LOS ANGELES THE RIGHT TO RESTRICT BUILDING WITHIN THAT AREA ON THE FINAL MAP.
7. THE PROPOSED WATER QUALITY BASIN, SWALES, DEBRIS BASINS AND STORM DRAIN FACILITIES WILL BE MAINTAINED BY LOS ANGELES COUNTY.
8. BECAUSE THE WATER QUALITY BASIN, AND SWALES PROVIDE NO OUTLET, AND NO PLUMBING, THEY ARE NOT CONSIDERED FOR FLOOD CONTROL PURPOSES.
9. HYDROLOGY AND BASIN SIZE INDICATED AS PART OF THE RIVER ANALYSIS BY PACE ENGINEERING, MAY BE SUBMITTED SEPARATELY.
10. CLEARANCE PREPARATION BY OTHERS, TO BE SUBMITTED SEPARATELY.
11. WHEN DUPLICATE DATA SHOWN ON BOTH TABLE & PLAN, PLAN DATA SHOWN FOR INFORMATIONAL PURPOSES ONLY.
12. ALL RIVER SWALES TO HAVE EMERGENCY OVERFLOW SPILLWAY FOR FLOOD CONTROL.
13. ENCROACHMENT INTO EXISTING MAIN LINE FLOODWAY AND FEMA ZONE "A" WILL BE MITIGATED.
14. PROPOSED DRAINAGE FACILITIES WITHIN CALTRANS R/W SHALL BE MAINTAINED BY CALTRANS.
15. EATON BASIN, WATER QUALITY FACILITIES AND STORM DRAIN LINE WITHIN CALTRANS RIGHT OF WAY TO BE MAINTAINED BY CALTRANS.



NOTES:

1. LOCATION, SIZE AND NUMBER OF WATER QUALITY BASIN, SWALES AND FILTER STRIP ARE APPROXIMATE, SIZES ARE DEPENDENT ON THE AMOUNT OF WATER QUALITY TREATMENT PROVIDED IN UPSTREAM PROJECTS.
2. DEPENDING ON PLANTING AND/OR FACILITIES SIZE, DURING FINAL DESIGN, ANY ADJUSTMENTS MAY BE ACCOMMODATED WITHIN ADJACENT LOTS AND THEIR LAND USE.
3. THE WATER QUALITY BASIN, SWALES AND FILTER STRIP SHALL BE DEDICATED TO THE COUNTY WHEN COMPLETED AND ACCEPTED.
4. COS UNIT OR OTHER DEPARTMENT APPROVED EQUIVALENT BMPS MAY BE SUBSTITUTED AS APPROPRIATE DURING FINAL DESIGN.
5. WATER QUALITY FACILITIES ASSOCIATED WITH SR 126 ARE PER SEPARATE PLAN BY OTHERS.
6. TREATMENT BMPS ARE DESIGNED TO TREAT 80% OF THE TOTAL RUNOFF FROM IT'S TRIBUTARY AREA.
7. WATER QUALITY DEVICES TO BE MAINTAINED BY LA COUNTY LMD SPECIAL DISTRICT.

TREATMENT BMP CALCULATIONS BY DRAINAGE AREA
LANDMARK VILLAGE CENTRAL

Subarea	Area (ac)	LA County Req. Qpm (cfs)	Project Design Qpm (cfs)	BMP Type	BMP Size	Bioretention Area (acres)	LA County Req. Vm (ac-ft)	Project Design Vm (ac-ft)
RVC-3A	10.8	0.4	N/A	Bioretention	RVC-12C	0.33	0.44	0.60
RVC-3B	10.8	0.4	N/A	Bioretention	RVC-12C	0.33	0.44	0.60
RVC-3A	10.2	1.4	N/A	Bioretention	RVC-12C	0.31	0.41	0.55
RVC-8A	5.1	0.7	N/A	Bioretention	RVC-12C	0.33	0.46	0.63
RVC-11B	16.4	2.0	3.3	Vegetative Swale	RVC-21D	N/A	0.65	N/A
RVC-18C	17.4	2.0	3.3	Vegetative Swale	RVC-21D	N/A	0.69	N/A
RVC-22C	2.5	0.4	–	MQ Extended Detention Basin	RVC-21D	N/A	0.14	0.30
RVC-23E	39.3	6.3	–	MQ Extended Detention Basin	RVC-21D	N/A	2.01	3.14
RVC-24C	7.4	1.2	1.9	MQ Extended Detention Basin	RVC-21D	N/A	0.38	0.81

TREATMENT BMP CALCULATIONS BY DRAINAGE AREA
LANDMARK VILLAGE EAST

Subarea	Area (ac)	LA County Req. Qpm (cfs)	Project Design Qpm (cfs)	BMP Type	BMP Size	Bioretention Area (acres)	LA County Req. Vm (ac-ft)	Project Design Vm (ac-ft)
RVC-8A	22.8	3.5	N/A	Bioretention	RVC-8A	0.91	0.82	1.82
RVC-3A	5.7	0.8	N/A	Bioretention	RVC-8A	0.23	0.20	0.46
RVC-11D	16.2	1.6	2.5	Vegetative Swale	RVC-12C	N/A	0.59	N/A
RVC-12C	16.5	2.1	3.3	Vegetative Swale	RVC-12C	N/A	0.60	N/A
RVC-20C	18.3	2.3	3.4	Vegetative Swale	RVC-24F	N/A	0.66	N/A
RVC-25D	14.4	1.6	2.4	Vegetative Swale	RVC-24F	N/A	0.77	N/A
RVC-23F	14.4	1.6	2.4	Vegetative Swale	RVC-24F	N/A	0.77	N/A
RVC-27E	7.3	1.0	N/A	Bioretention	RVC-12C	0.38	0.32	0.68
RVC-28F	5	0.7	N/A	Bioretention	RVC-12C	0.26	0.22	0.46

TREATMENT BMP CALCULATIONS BY DRAINAGE AREA
LANDMARK VILLAGE WEST

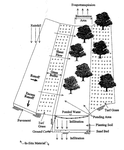
Subarea	Area (ac)	LA County Req. Qpm (cfs)	Project Design Qpm (cfs)	BMP Type	BMP Size	Bioretention Area (acres)	LA County Req. Vm (ac-ft)	Project Design Vm (ac-ft)
RVW-1A	10.8	1.0	1.7	Vegetative Swale	RVW-2A	N/A	0.43	N/A
RVW-2A	14.7	1.3	3.1	Vegetative Swale	RVW-2A	N/A	0.42	N/A

REFERENCES:

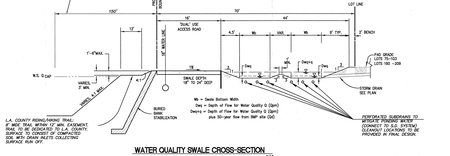
* THIS MAP WAS CALCULATED BY SUHAND AND CAN BE FOUND IN NEWHALL RANCH SPECIFIC PLAN MASTER HYDROLOGY AND DRAINAGE CONCEPT, DATED 06/09/06, APPENDIX FOR REFERENCE.

** DEPICTS SUBBASINS WITHIN THESE SUB-BASINS WILL BE COLLECTED IN DEBRIS TRAPS UPSTREAM OF THE SUBDRAINS. THE DEBRIS TRAPS WILL BE MAINTAINED AS NECESSARY. THIS IS ACCORDANCE WITH THE NEWHALL RANCH SPECIFIC MASTER PLAN HYDROLOGY AND DRAINAGE CONCEPT-- NORTHERLY SIDE DRAIN SYSTEM PREPARED BY SUHAND AND DATED 06/09/06.

*** SUHAND SD-TEAR FLOODPLAIN PER DRAINAGE CONCEPT PLAN VTTM NO. 53108 - EXHIBITIE_2C_EXBIG.DWG



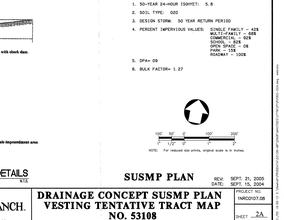
BIORETENTION DETAIL
N.T.S.

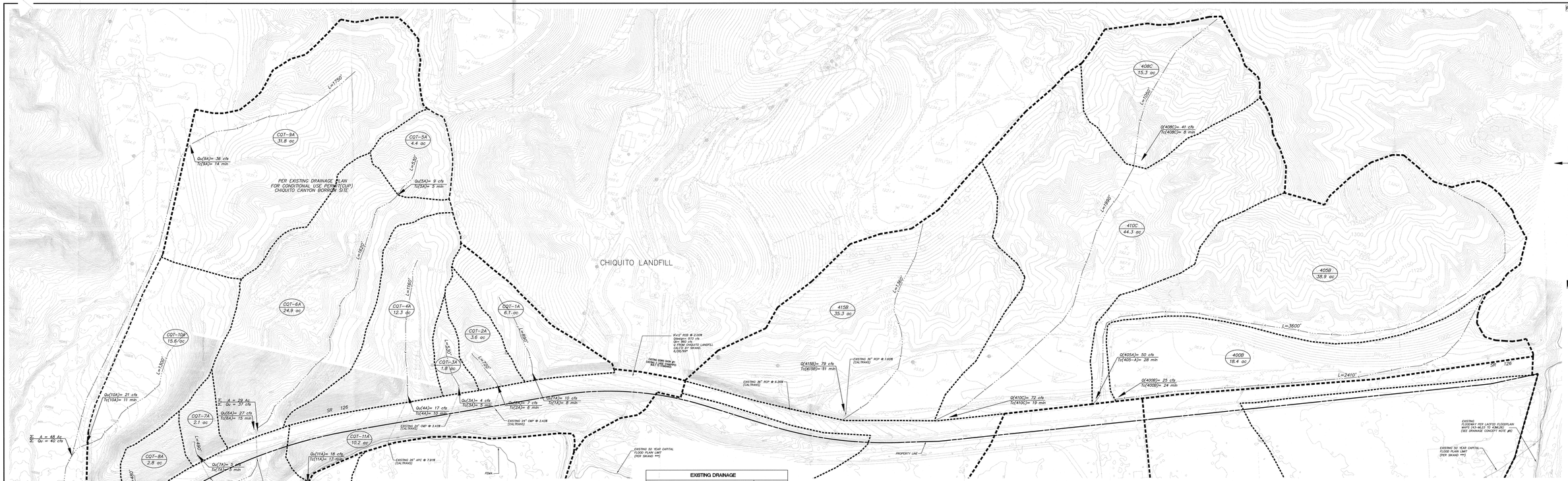


WATER QUALITY SWALE CROSS-SECTION
N.T.S.

LANDMARK VILLAGE
VEGETATIVE SWALE DATA

BMP Site	Qpm (cfs)	Q50-Site (cfs)	Qpm+Q50 (cfs)	n	Longitudinal Slope s (ft/ft)	Swale Width ms (ft)	Depth Swq (ft)	Depth Dwqmq (ft)	Vm (ft/s)	Notes
RVC-12C	2.9	1.0	3.9	0.25	0.01	8.0	0.5	0.84	0.59	
RVC-12C	2.9	1.0	3.9	0.25	0.01	8.0	0.5	0.84	0.59	
RVC-24F	3.1	1.0	4.1	0.25	0.01	8.5	0.5	0.87	0.63	
RVC-24F	3.6	2.0	5.6	0.25	0.01	10.0	0.5	0.94	0.71	
RVC-23E	3.4	2.0	5.5	0.25	0.01	7.0	0.5	0.91	0.70	
RVC-17D	3.3	2.0	5.3	0.25	0.01	9.0	0.5	0.72	0.65	
RVC-21F	3.1	2.0	5.1	0.25	0.01	8.0	0.5	0.74	0.64	
RVW-1A	3.5	2.0	5.5	0.25	0.01	8.5	0.5	0.48	0.43	UPSTREAM OF LINE L
RVW-2A	3.1	2.0	5.1	0.25	0.01	8.5	0.5	0.68	0.42	DOWNSTREAM OF LINE L


Provide for snow provisions.
(a) Cross section of swale with check dam
Notes:
1. Length of swale (measured over pipe or check dam (P))
2. Width of swale (ms)
3. Bottom slope of swale (m/s)
4. Side slope of swale (Z)
5. Bottom width of check dam (b)
6. Height of check dam (measured from the swale axis slope (P))
(b) Dimensional view of swale impoundment area
Ms
Z
1
Z
1
Ms
Swq
Dwqmq
Qp
Swq
Dwqmq
Qp



EXISTING DRAINAGE

SUB-BASIN NUMBER	TIME OF CONCENTRATION (minutes)	SUB-BASIN AREA (acres)	INCREMENTAL SUB-BASINS Q (cfs)	INCREMENTAL SUB-BASINS Qb (cfs)	INCREMENTAL SUB-BASINS Qnb (cfs)	CUMULATIVE SUB-BASINS SUB-BASIN AREA (acres)	CUMULATIVE SUB-BASINS Qnb (cfs)
110A	22	22.7	27	41	52	—	—
111A	20	49.6	44	58	74	82.3	111
112A	24	12.3	24	28	35	53.1	76
410B	24	18.4	14	20	26	18.4	26
405A	28	28.5	27	28	30	—	—
410C	18	13.3	20	22	12	—	—
410A	8	12.7	25	27	13	—	—
415B	11	35.3	46	62	79	—	—
415A	20	28.4	35	44	61	—	—
420A	20	39.9	35	49	61	235.5	280
505A	30	36.5	33	33	43	—	—
510A	24	45.0	31	34	52	66.5	83
620A	22	12.4	10	14	18	12.4	18
					SUBTOTAL:	440.8	548
					CH-Qu(10):	127.3	283
					TOTAL:	568.1	831

EXISTING CHIQUITO PROJECT DRAINAGE

SUB-BASIN NUMBER	TIME OF CONCENTRATION (minutes)	INCREMENTAL SUB-BASINS 50-YEAR STORM EVENT SUB-BASIN AREA (acres)	Qu (cfs)	Qb (cfs)	Qnb (cfs)	DEBRIS PROJECTION (cy)
CQT-1A	8	6.1	10	13	16	165
CQT-2A	6	3.6	7	9	11	97
CQT-3A	5	1.8	4	5	6	47
CQT-4A	10	15.3	17	22	28	330
CQT-5A	5	4.4	10	12	15	118
CQT-6A	15	24.9	27	35	44	327
CQT-7A	6	2.1	5	6	8	57
CQT-8A	5	2.8	6	7	10	76
CQT-9A	14	31.8	56	65	81	859
CQT-10A	11	15.6	21	26	33	421
CQT-11A	17	10.2	18	19	29	137
CQT-12A	10	11.7	26	28	38	87
SUBTOTAL		137.3	187	227	283	2982

REFERENCES:

* THIS MAS CALCULATED BY SCANDI AND CAN BE FOUND THE NEWHALL RANCH SPECIFIC PLAN MASTER DRAINAGE STUDY, PREPARED BY SCANDI, DATED 06/28/94. APPROVED FOR REFERENCE.

** DEBRIS GENERATED WITHIN THESE SUB-BASINS WILL BE COLLECTED IN DEBRIS BASINS UPSTREAM OF S.R.126 AND WILL NOT ENTER THE RIVER VILLAGE DEVELOPMENT. THIS IS IN ACCORDANCE WITH THE NEWHALL RANCH SPECIFIC MASTER PLAN HYDROLOGY AND DRAINAGE CONCEPT - NORTHERLY SIDE DRAIN SYSTEMS PREPARED BY SCANDI AND DATED 06/28/94.

*** SCANDI 50-YEAR FLOODPLAIN PER DRAINAGE CONCEPT PLAN VTTM NO.53108 - EX41B172_SC_EX60.DWG

DRAINAGE DESIGN CRITERIA:

1. 50-YEAR 24-HOUR ISOHYET: 5.8
2. SOIL TYPE: 000
3. DESIGN STORM: 50 YEAR RETURN PERIOD
4. PERCENT IMPERVIOUS VALUES: SINGLE FAMILY = .428 MULTI FAMILY = .528 COMMERCIAL = .928 SCHOOL = .828 OPEN SPACE = .08 PARK = .158 ROADWAY = .100S
5. DP#= 09
6. BULK FACTOR= 1.27

LEGEND:

- 110A — SUB-BASIN NUMBER
- 7.3 ac — SUB-BASIN AREA (ac)
- PROJECT BOUNDARY
- SUB-BASIN BOUNDARY
- DRAINAGE AREA BOUNDARY
- RIGHT OF WAY
- EASEMENT
- 950 — PROPOSED CONTOUR
- DAYLIGHT LINE
- 50' — STORM DRAIN
- EXISTING CMP INLET
- CATCH BASIN
- FEMA LINE
- LOS ANGELES COUNTY FLOODWAY
- 6-CMP (Existing)
- BURIED BANK STABILIZATION
- DEBRIS BASIN CONTRIBUTING AREA
- FLOWPATH
- DEBRIS FLOWPATH
- Q — EXISTING SUBAREA Qsurfaced + Qultrad
- Qsub= 9 cfs, Tc(sub)= 15 min — EXISTING TIME OF CONCENTRATION
- Q — Qsurfaced/Qnatlap
- Qd — Qdeveloped
- Qs — Qsurfaced
- Qsb — Qsurfaced+Qultrad
- Qnb — Qsurfaced+Qultrad

PROJECT SITE

VICINITY MAP
NOT TO SCALE

NOTE: For reduced size prints, original scale is 0 inches.

LEGAL DESCRIPTION:
PARCELS 16, 17, 18, 17 OF PARCEL MAP NO. 24500-01 PMB 293-76 / 81, RECORDS OF LOS ANGELES COUNTY.

ROSS H. BARKER R.C.E. NO. C32799 DATE

PSOMAS
3765 South Higuera Street, Suite 100
San Luis Obispo, California 93401
(805) 546-0455 (805) 546-0151 (Fax)

DESIGNED: RB/JW
DRAFTED: AC
CHECKED: MG

OWNER/DEVELOPER:
NEWHALL RANCH
23823 WEST VALENCIA BOULEVARD
SANTA CLARITA, CALIFORNIA 91355
TELEPHONE: (661) 259-0578 FAX: (661) 259-0578
REPRESENTATIVE: MR. DAVID CRONKER

EXISTING DRAINAGE PLAN FOR VESTING TENTATIVE TRACT MAP NO. 53108
NEWHALL RANCH - LANDMARK VILLAGE
IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

EXISTING AREAS
OFFSITE

REV: SEPT 21, 2005
DATE: SEPT 15, 2004

PROJECT NO.: RMR2002-08

SHEET 3 OF 6

4.2-D

RV062-03

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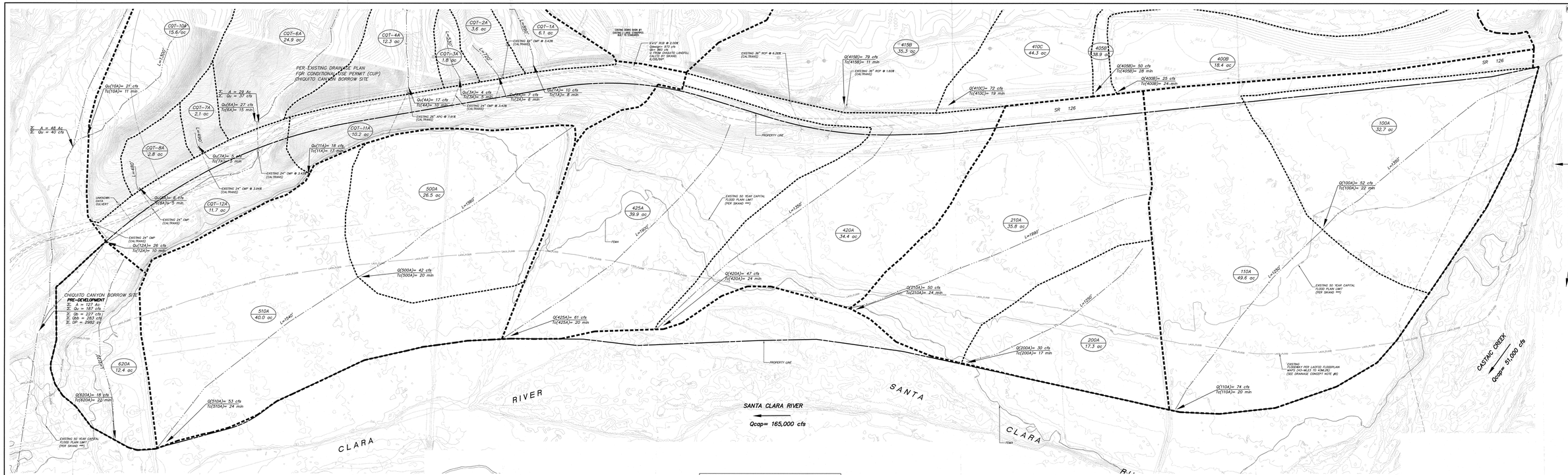
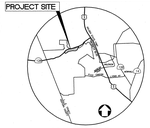


PROJECT SITE



VICINITY MAP
NOT TO SCALE

LEGEND:

110A	SUB-BASIN NUMBER
207.3 ac	SUB-BASIN AREA (ac)
	PROJECT BOUNDARY
	SUB-BASIN BOUNDARY
	DRAINAGE AREA BOUNDARY
	RIGHT OF WAY
	EASEMENT
950	PROPOSED CONTOUR
	DAYLIGHT LINE
	STORM DRAIN
	EXISTING CMP INLET
	CATCH BASIN
	FEMA LINE
LACFCD	LOS ANGELES COUNTY FLOODWAY
	6-CMP (Existing)
	BURIED BANK STABILIZATION
	DEBRIS BASIN CONTRIBUTING AREA
	FLOWPATH
	DEBRIS FLOWPATH
Q(sub)= 9 cfs Tc(sub)= 15 min	EXISTING SUBAREA (Assumed + Inclosed) EXISTING TIME OF CONCENTRATION
Q	Qunburned/Developed
Qd	Qdeveloped
Qb	Qburned
Qbb	Qburned+mitigated
Qbb	Qburned+mitigated

DRAINAGE DESIGN CRITERIA:

1. 50-YEAR 24-HOUR ISOHYETS: 5.8
2. SOIL TYPE: D
3. DESIGN STORM: 50 YEAR RETURN PERIOD
4. PERCENT IMPERVIOUS VALUES: SINGLE FAMILY = .625 MULTI FAMILY = .75 COMMERCIAL = .90 INDUSTRIAL = .90 OPEN SPACE = .05 PARKS = .05 ROADWAY = .2208
5. DRA= D9
6. BULK FACTOR= 1.27

NOTE: For reduced size prints, original scale is in inches.

EXISTING DRAINAGE

SUB-BASIN NUMBER	TIME OF CONCENTRATION (minutes)	INCREMENTAL SUB-BASINS: SUB-BASIN AREA (acres)	INCREMENTAL SUB-BASINS: Q (cfs)	INCREMENTAL SUB-BASINS: Qb (cfs)	INCREMENTAL SUB-BASINS: Qbb (cfs)	CUMULATIVE SUB-BASINS: SUB-BASIN AREA (acres)	CUMULATIVE SUB-BASINS: Qbb (cfs)
100A	22	32.7	27	41	52	---	---
110A	22	49.6	41	64	74	82.3	111
200A	17	17.3	17	24	30	---	---
210A	24	35.8	29	45	39	53.1	76
400B	24	18.4	14	20	25	—	—
405A	28	35.9	27	38	50	—	—
410C	19	15.3	25	32	41	—	—
415B	11	35.3	46	62	79	—	—
420A	24	34.4	23	33	47	—	—
425A	20	39.9	33	47	61	226.5	290
500A	20	26.5	33	33	42	---	---
510A	24	40.0	33	47	53	66.5	83
620A	22	12.4	10	14	18	12.4	18
					SUBTOTAL	440.8	348
					CH-QUITO	127.3	283
					TOTAL	568.1	831

EXISTING CHIQUITO PROJECT DRAINAGE

SUB-BASIN NUMBER	TIME OF CONCENTRATION (minutes)	INCREMENTAL SUB-BASINS: SUB-BASIN AREA (acres)	50-YEAR STORM EVENT: Qu (cfs)	50-YEAR STORM EVENT: Qb (cfs)	50-YEAR STORM EVENT: Qbb (cfs)	50-YEAR STORM EVENT: DEBRIS PRODUCTION (m3)
CQT-1A	8	6.1	10	13	16	140
CQT-2A	8	3.6	6	8	10	82
CQT-3A	8	1.8	3	4	5	41
CQT-4A	10	12.3	17	22	28	332
CQT-6A	15	24.9	27	36	49	672
CQT-8A	15	24.9	27	36	49	672
CQT-7A	5	2.1	5	6	8	57
CQT-10A	8	15.6	25	32	41	429
CQT-11A	14	31.8	39	49	61	858
CQT-10A	11	15.6	21	27	35	431
CQT-11A	11	10.2	18	18	18	54
CQT-12A	10	11.7	26	29	28	81
SUBTOTAL		127.3	187	227	283	2862

REFERENCES:

* THIS MAP CALCULATED BY SIXANO AND CAN BE FOUND THE NEWHALL RANCH SPECIFIC PLAN MASTER HYDROLOGY AND DRAINAGE CONCEPT, DATED 08/28/06. APPROVED FOR REFERENCE.
** DEBRIS GENERATED WITHIN THESE SUB-BASINS WILL BE COLLECTED IN DEBRIS BASINS UPSTREAM OF THE FLOW AND WILL NOT ENTER THE RIVER VALLEY. DEVELOPMENT OF THESE IS IN ACCORDANCE WITH THE NEWHALL RANCH SPECIFIC PLAN MASTER HYDROLOGY AND DRAINAGE CONCEPT - NORTHERLY SIDE DRAIN SYSTEMS PREPARED BY SIXANO AND DATED 08/28/06.
*** SIXANO 50-YEAR FLOODPLAIN PER DRAINAGE CONCEPT PLAN VTTM NO. 53108 - CH1013T2_SC_EX60.DWG

LEGAL DESCRIPTION:
PARCELS 1A, 1B, 1E, 1F OF PARCEL MAP NO. 24500-01 PMB 293-34 / 37 ET, RECORDS OF LOS ANGELES COUNTY.

PSOMAS
3665 Nome Street, Suite 110
Denver, CO 80205
303.297.9390 (877) 770-7772 (FAX)
BOSS & BARKER R.C.E. NO. C32799 EXP.

DESIGNED: WL/JW/EW
DRAWN: WL/EW
CHECKED: WL/RB

OWNER/DEVELOPER:
NEWHALL RANCH.
23823 WEST VALENCIA BOULEVARD
VALENCIA, CALIFORNIA 91355
TELEPHONE: (661) 255-4000
REPRESENTATIVE: MR. FRED MAGAURO

EXISTING AREAS ON-SITE

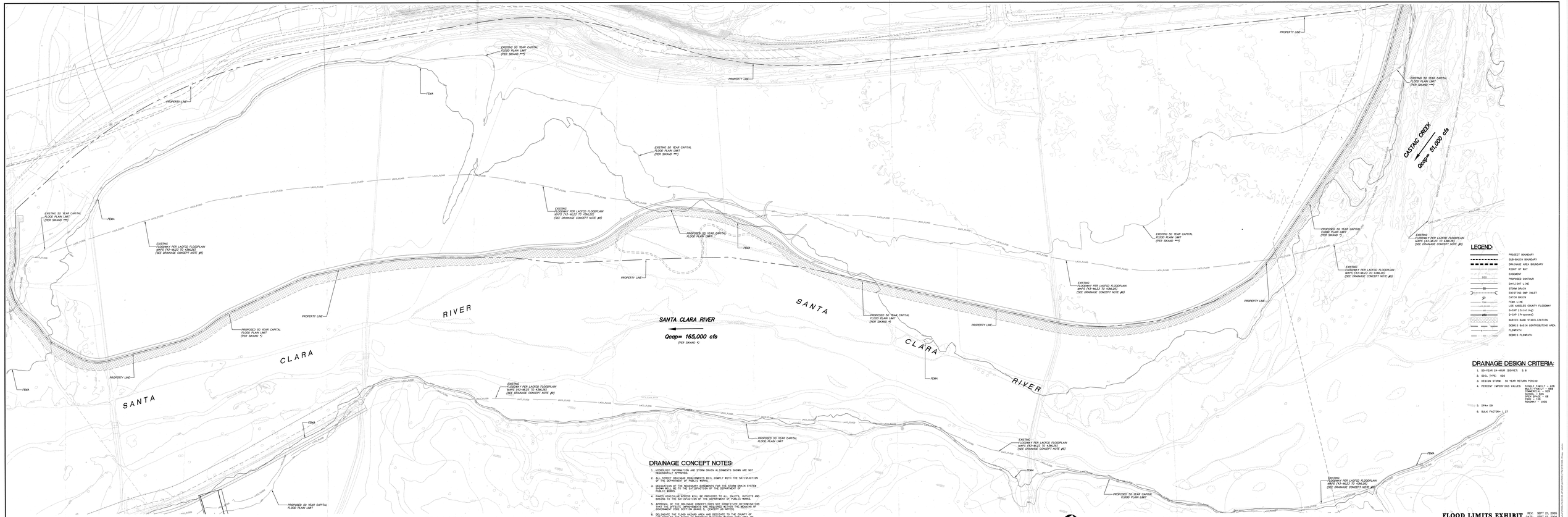
REV. SEPT 21, 2005
DATE: SEPT 13, 2004

EXISTING DRAINAGE PLAN FOR VESTING TENTATIVE TRACT MAP NO. 53108

NEWHALL RANCH - LANDMARK VILLAGE

IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES

PROJECT NO. NWR02012.08
SHEET 4 OF 6
4.2-E
RV062-04



DRAINAGE DESIGN CRITERIA:

1. 50-YEAR 24-HOUR ISOHYET: 5.8
2. SOIL TYPE: D20
3. DESIGN STORM: 50 YEAR RETURN PERIOD
4. PERCENT IMPERVIOUS VALUES: SINGLE FAMILY = 40%
   MULTI-FAMILY = 80%
   COMMERCIAL = 90%
   OPEN SPACE = 0%
   DRIVE SPACE = 90
   PARK = 15%
   ROADWAY = 100%
5. DPA= D9
6. BULK FACTOR= 1.27

DRAINAGE CONCEPT NOTES:

1. HYDROLOGY INFORMATION AND STORM DRAIN ALIGNMENTS SHOWN ARE NOT NECESSARILY APPROVED.
2. ALL STREET DRAINAGE REQUIREMENTS WILL COMPLY WITH THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
3. DEDICATION OF THE NECESSARY EASEMENTS FOR THE STORM DRAIN SYSTEM WILL BE MADE TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
4. PAVED VEHICULAR ACCESS WILL BE PROVIDED TO ALL INLETS, OUTLETS AND BASINS TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
5. APPROVAL OF THE DRAINAGE CONCEPT DOES NOT CONSTITUTE DETERMINATION OF THE ROAD DEDICATIONS REQUIRED TO COMPLY WITH THE MEANING OF GOVERNMENT CODE SECTION 66462.5, EXCEPT AS NOTED.
6. DELINEATE THE FLOOD HAZARD AREA AND DEDICATE TO THE COUNTY OF LOS ANGELES THE RIGHT TO RESTRICT BUILDING WITHIN THAT AREA ON THE FINAL MAP.
7. THE PERMANENT WATER QUALITY BASINS, DEBRIS BASINS AND STORM DRAIN FACILITIES WILL BE MAINTAINED BY LOS ANGELES COUNTY.
8. BECAUSE THE WATER QUALITY BASINS PROVIDE AN OUTLET, AND NO PERCOLATION CONSIDERED, A FUGRO PERCOLATION TEST WILL NOT BE REQUIRED.
9. FLOODWAY MAP WILL BE AMENDED AS PART OF THE RIVER ANALYSIS BY PACE ENGINEERING TO BE SUBMITTED SEPARATELY.
10. CLOMR UNDER PREPARATION BY OTHERS, TO BE SUBMITTED SEPARATELY.

REFERENCES:

* THIS MAP CALCULATED BY SIKAND AND CAN BE FOUND THE NEWHALL RANCH SPECIFIC PLAN MASTER HYDROLOGY AND DRAINAGE CONCEPT, DATED 08/28/96. APPENDIX FOR REFERENCE.

** DEBRIS GENERATED WITHIN THESE SUB-BASINS WILL BE COLLECTED IN DEBRIS BASINS UPSTREAM OF THE STORM DRAIN SYSTEM. THE DEBRIS BASINS WILL BE MAINTAINED IN ACCORDANCE WITH THE NEWHALL RANCH SPECIFIC MASTER PLAN HYDROLOGY AND DRAINAGE CONCEPT - NORTHERLY SIDE DRAIN SYSTEMS PREPARED BY SIKAND AND DATED 08/28/96.

*** SIKAND 50-YEAR FLOODPLAIN PER DRAINAGE CONCEPT PLAN VTTM NO.53108 - EXHIBIT2_DC_EXBG.DWG

NOTE: For reduced size prints, original size

PSOMAS 3875 Market Ventura, CA 93003 (805) 339-9400 (805) 745-2156 (FAX) ROSS W. BARKER R.C.E. NO. C32799 DATE	DESIGNED: ML/JW/JN	OWNER/DEVELOPER: NEWHALL RANCH. 23823 WEST VALENCIA BOULEVARD VALENCIA, CALIFORNIA 91355 (661) 259-0771 (661) 259-0772 (FAX) REPRESENTATIVE: MR. PRED MASMURDO	FLOOD LIMITS EXHIBIT REV: SEPT 21, 2006 DATE: SEPT 15, 2006 DRAINAGE CONCEPT PLAN FOR VESTING TENTATIVE TRACT MAP NO. 53108 NEWHALL RANCH - LANDMARK VILLAGE IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES	PROJECT NO: NWR0302-08	
	DRAWN: AC/ML			SHEET 5 OF 6	
	CHECKED: ML/RB			4.2-F	RVR062-05

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0 125 250 500 Feet

Landmark Village Planning Area
Trees Impacted by Onion Field
Bank Stabilization

Source: Construction Limit Line obtained from PBOMAS, December, 2005. (C-GR-IMPC.dwg).
Aerial Imagery - 9-11-03, PSOMAS. .5 ft. Resolution Imagery.
Tree data collected by Impact Sciences, December, 2005, using sub-meter GPS.
Tree Protective Zone was determined by largest canopy distance + 5 feet.
Protective Zone was only mapped for trees bordering Grading Limit Line.

Date: 12-21-05. File: G:\9991-206_Newhall_Resurvey\Mxd\LMVBankStabilization_TreeImpact_091806.mxd.

- Removal
- Encroached
- 200 feet from Grading
- Other
- Tree Protective Zone
- Grading Limit Line
- 200 ft. from Grading Limit Line

4.4-A

OAK TREE LEGEND:

- OAK TREE – NO IMPACT
- OAK TREE – ENCROACHED
- OAK TREE – REMOVAL
- OAK TREE – GREATER THAN 200 FT FROM GRADING LIMITS

OFFSITE GRADING
CHIQUITO CANYON

LEGEND:

- EXISTING LOT LINE
- EXISTING EASEMENT
- PROPOSED CONTOUR
- DAYLIGHT LINE
- CUT & FILL
- FLOW LINE
- BENCH
- SWALE
- HAUL ROUTE ACCESS ROAD
- RIVER CORRIDOR-2003 (FORMALLY SEA 22)
- RIVER CORRIDOR (FORMALLY SEA 22)
- TRAIL
- U-CAP
- DEBRIS TRIBUTARY LIMIT
- DEBRIS BASIN
- SOIL WELL GPS POSITIONED
- SOIL WELL DEPT. OF SOIL AND GAS CALCULATED POSITION
- SOIL WELL DIGITIZED POSITION
- SOIL WELL DEPT. OF SOIL AND GAS METAL DETECTOR POSITION
- RIP-RAP
- SPINE FLOWER
- GEOLOGY
- SPINE FLOWER PROTECTION BOUNDARY

OFFSITE GRADING
ADOBE CANYON

OFFSITE GRADING
FRANKLIN PKWY/WATER TANK

NEWHALL RANCH

LANDMARK VILLAGE TR 53108
OAK TREE EXHIBIT

4.4-B

PSOMAS

DATE: 8/28/06 REVISED ON:
JOB No: 1WR0202.00

SHEET 3 OF 3

RV095-03.dwg

SEE SHEET 3

HOMESTEAD ESTATES

HOMESTEAD ESTATES

SEE SHEET 2

SEE SHEET 3

SANTA CLARA RIVER

SANTA CLARA RIVER

CASTAIC CREEK

LOT 5

LOT 8

LOT 9

LOT 10

LOT 11

LOT 12

LOT 13

LOT 14

LOT 15

LOT 16

LOT 17

LOT 18

LOT 19

LOT 20

LOT 21

LOT 22

SR 126

LANDMARK DRIVE

NEWHALL RANCH

PROJECT SITE

VICINITY MAP

NOT TO SCALE

LEGEND:

100	LOT NO.
6000 SF	LOT AREA (SQUARE FEET)
1210.5	PAD ELEVATION
O.S.	OPEN SPACE
	PROJECT BOUNDARY
	RIGHT OF WAY
	PROPOSED EASEMENT
	EXISTING EASEMENT
	FUTURE RIGHT OF WAY
1210	PROPOSED CONTOUR
	DAYLIGHT LINE
	STORM DRAIN
SS	SANITARY SEWER (SERVICE LOCAL)
SS	SANITARY SEWER (TRUNK SEWER)
FM	SANITARY SEWER (FORCE MAIN)
W	WATER
RW	RECLAIMED WATER
IRRIG	IRRIGATION LINE
W	EXISTING WATER LINE
	EXISTING POWER LINE
	EXISTING TELEPHONE LINE
	EXISTING CMP INLET
	EATON BASIN
	WATER GATE VALVE
	RIVER CORRIDOR-2003
	FEMA
	Q-CAP
	EIL WELL SPS POSITIONED
	EIL WELL DEPT. OF EIL AND GAS METAL DETECTOR
	EIL WELL EXISTIGED POSITION
	EIL WELL DEPT. OF EIL AND GAS METAL DETECTOR POSITION
	EXISTING POWER POLE
W.S.	WATER SURFACE
P.F.	PUBLIC FACILITY
	TRAIL/ACCESS & MAINTENANCE ROAD
	L.A. COUNTY REGIONALPOND TRAIL
	BURIED BANK STABELIZATION
	SIGHT DISTANCE LINE

OAK TREE LEGEND:

	OAK TREE - NO IMPACT
	OAK TREE - ENCROACHED
	OAK TREE - REMOVAL
	OAK TREE - GREATER THAN 200 FT FROM GRADING LIMITS

LANDMARK VILLAGE TR 53108
OAK TREE EXHIBIT

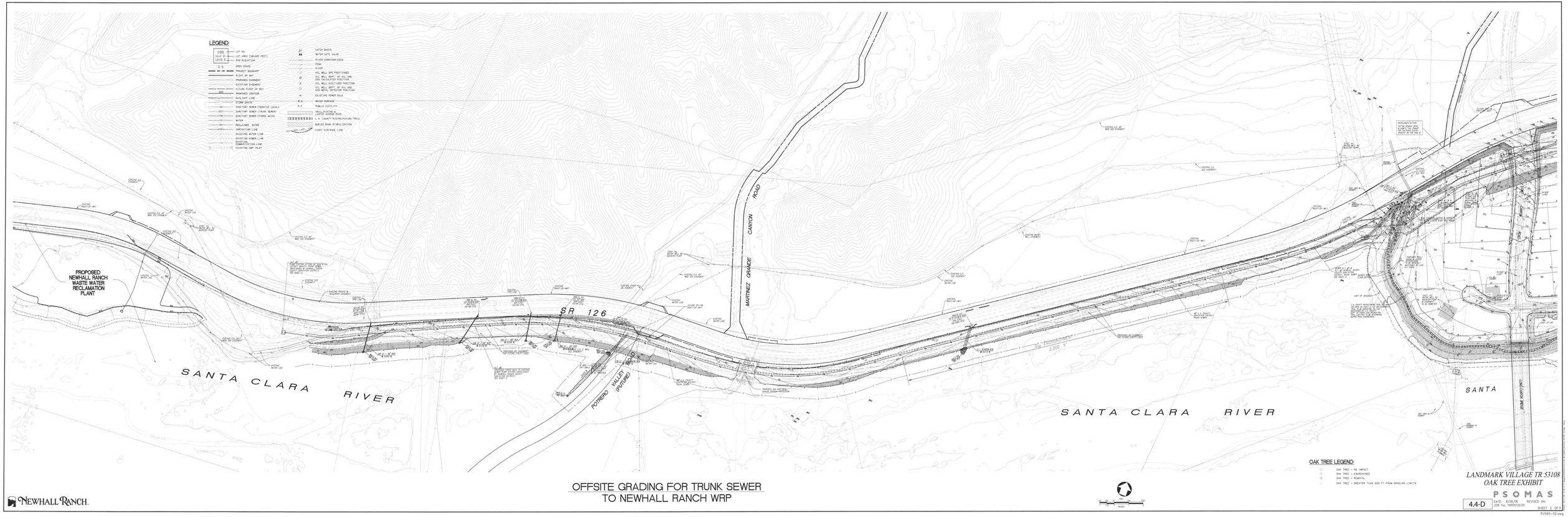
PSOMAS

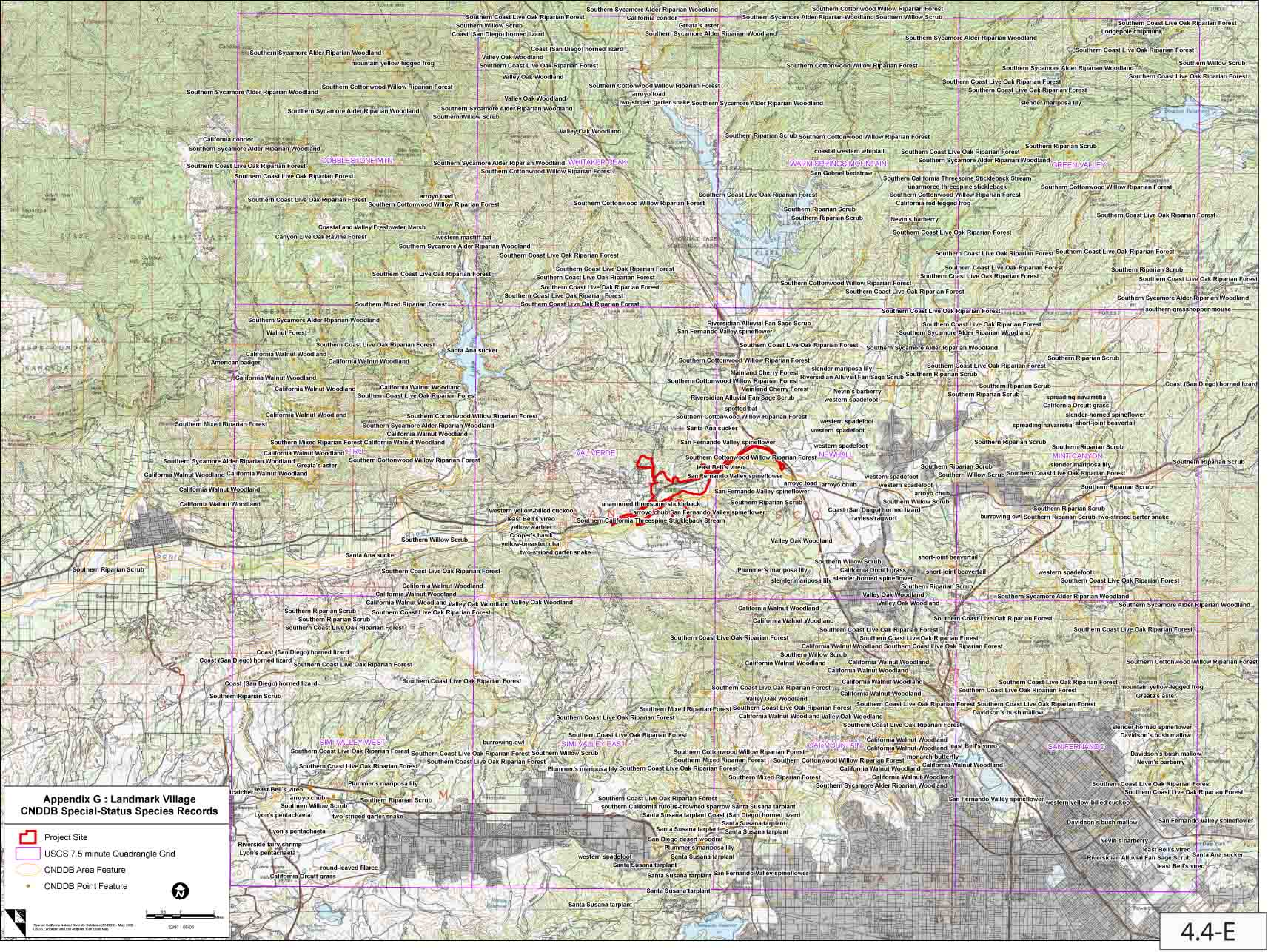
4.4-C

DATE: 8/28/06 REVISED ON:
JOB No: TMC02120.00

SHEET 1 OF 3

RV085-01.dwg


LEGEND:
LOT NO.
LOT AREA (SQUARE FEET)
PAD ELEVATION
OPEN SPACE
PROJECT BOUNDARY
RIGHT OF WAY
PROPOSED EASEMENT
EXISTING EASEMENT
FUTURE RIGHT OF WAY
PROPOSED CONTOUR
DAYLIGHT LINE
STORM DRAIN
SANITARY SEWER (SEWISE LOCAL)
SANITARY SEWER (TRUNK SEWER)
SANITARY SEWER (FORCE MAIN)
WATER
RECLAIMED WATER
IRRIGATION LINE
EXISTING WATER LINE
EXISTING POWER LINE
COMMUNICATION LINE
EXISTING CMP INLET
DATUM BASIN
WATER GATE VALVE
RIVER DORRIGON-2000
FFDM
G-CAP
SOIL WELL SPE PIEZOTIMED
SOIL WELL DEPT. OF SOIL AND WATER QUALITY PIEZOTIMED
SOIL WELL SCISTITUTE PIEZOTIMED
SOIL WELL DEPT. OF SOIL AND WATER QUALITY PIEZOTIMED
SOIL METAL DETECTOR PIEZOTIMED
EXISTING POWER POLE
WATER BARRIER
P.F. PUBLIC FACILITY
TRAIL (EXISTING & PROPOSED HORSE ROAD)
L.A. COUNTY RIDING/HIKING TRAIL
BURIED BANK STABILIZATION
SIGHT DISTANCE LINE
PROPOSED NEWHALL RANCH WASTE WATER RECLAMATION PLANT
SR 126
SANTA CLARA RIVER
POTRERO VALLEY ROAD (PUTTED)
MARTINEZ GRANICE CANYON ROAD
SANTA CLARA RIVER
SANTA
BONITA HIGHWAY (PVT)
MONUMENTATION
OAK TREE LEGEND:
OAK TREE = NO IMPACT
OAK TREE = ENCROACHED
OAK TREE = REMOVAL
OAK TREE = GREATER THAN 200 FT FROM GRADING LIMITS
NEWHALL RANCH
OFFSITE GRADING FOR TRUNK SEWER
TO NEWHALL RANCH WRP
LANDMARK VILLAGE TR 53108
OAK TREE EXHIBIT
PSOMAS
4.4-D
DATE: 8/28/06
JOB No: TNR0012.00
REVISED ON:
SHEET 2 OF 3
RV095-02.dwg


Southern Sycamore Alder Riparian Woodland
Southern Cottonwood Willow Riparian Forest
Southern Coast Live Oak Riparian Forest
California condor
Southern Sycamore Alder Riparian Woodland Southern Willow Scrub
Southern Willow Scrub
Greata's aster
Coast (San Diego) horned lizard
Southern Sycamore Alder Riparian Woodland
Southern Coast Live Oak Riparian Forest
Lodgepole chipmunk
Southern Sycamore Alder Riparian Woodland
Coast (San Diego) horned lizard
Southern Coast Live Oak Riparian Forest
Southern Sycamore Alder Riparian Woodland
Valley Oak Woodland
mountain yellow-legged frog
Southern Coast Live Oak Riparian Forest
Southern Cottonwood Willow Riparian Forest
Southern Willow Scrub
Southern Sycamore Alder Riparian Woodland
Valley Oak Woodland
Southern Coast Live Oak Riparian Forest
Southern Cottonwood Willow Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Cottonwood Willow Riparian Forest
Southern Sycamore Alder Riparian Woodland
arroyo toad
Valley Oak Woodland
two-striped garter snake Southern Sycamore Alder Riparian Woodland
slender mariposa lily
Southern Sycamore Alder Riparian Woodland
Southern Sycamore Alder Riparian Woodland
Southern Willow Scrub
Valley Oak Woodland
Southern Riparian Scrub Southern Cottonwood Willow Riparian Forest
California condor
Southern Sycamore Alder Riparian Woodland
coastal western whiptail
Southern Coast Live Oak Riparian Forest
Southern Riparian Scrub
COBBLESTONE MTN
Southern Sycamore Alder Riparian Woodland
WHITAKER PEAK
WARM SPRINGS MOUNTAIN
Southern Sycamore Alder Riparian Woodland
GREEN VALLEY
Southern Coast Live Oak Riparian Forest
Southern Cottonwood Willow Riparian Forest
San Gabriel bedstraw
Southern Coast Live Oak Riparian Forest
Southern California Threespine Stickleback Stream
unarmored threespine stickleback
Southern Cottonwood Willow Riparian Forest
Southern Coast Live Oak Riparian Forest
arroyo toad
Southern Cottonwood Willow Riparian Forest
Southern Cottonwood Willow Riparian Forest
California red-legged frog
Southern Coast Live Oak Riparian Forest
Southern Cottonwood Willow Riparian Forest
Southern Riparian Scrub
Southern Riparian Scrub
Nevin's barberry
Coastal and Valley Freshwater Marsh
western mastiff bat
Canyon Live Oak Ravine Forest
Southern Coast Live Oak Riparian Forest
Southern Sycamore Alder Riparian Woodland
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Riparian Scrub
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Cottonwood Willow Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Sycamore Alder Riparian Woodland
Southern Mixed Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
southern grasshopper mouse
Southern Sycamore Alder Riparian Woodland
Riversidian Alluvial Fan Sage Scrub
Southern Coast Live Oak Riparian Forest
San Fernando Valley spineflower
Southern Sycamore Alder Riparian Woodland
Walnut Forest
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Sycamore Alder Riparian Woodland
California Walnut Woodland
Santa Ana sucker
American badger
California Walnut Woodland
Southern Cottonwood Willow Riparian Forest
Southern Riparian Scrub
slender mariposa lily
Southern Coast Live Oak Riparian Forest
California Walnut Woodland
Mainland Cherry Forest
Riversidian Alluvial Fan Sage Scrub
Southern Riparian Scrub
Southern Cottonwood Willow Riparian Forest
Southern Riparian Scrub
Coast (San Diego) horned lizard
California Walnut Woodland
California Walnut Woodland
Mainland Cherry Forest
Nevin's barberry
Southern Coast Live Oak Riparian Forest
Riversidian Alluvial Fan Sage Scrub
western spadefoot
Southern Riparian Scrub
spreading navarretia
California Walnut Woodland
spotted bat
California Orcutt grass
Southern Cottonwood Willow Riparian Forest
Southern Cottonwood Willow Riparian Forest
slender-horned spineflower
Southern Mixed Riparian Forest
Southern Sycamore Alder Riparian Woodland
western spadefoot
spreading navarretia
short-joint beavertail
California Walnut Woodland
Santa Ana sucker
western spadefoot
Southern Mixed Riparian Forest California Walnut Woodland
San Fernando Valley spineflower
Southern Riparian Scrub
California Walnut Woodland
PIRU
western spadefoot
Southern Riparian Scrub
Southern Cottonwood Willow Riparian Forest
VAL VERDE
Southern Cottonwood Willow Riparian Forest
NEWHALL
MINT CANYON
Southern Sycamore Alder Riparian Woodland
Greata's aster
slender mariposa lily
Southern Riparian Scrub
California Walnut Woodland California Walnut Woodland
least Bell's vireo
Southern Riparian Scrub
Southern Willow Scrub Southern Coast Live Oak Riparian Forest
San Fernando Valley spineflower
western spadefoot
California Walnut Woodland
arroyo toad arroyo chub
western spadefoot
Southern Riparian Scrub
San Fernando Valley spineflower
arroyo chub
California Walnut Woodland
Southern Riparian Scrub
Southern Willow Scrub
unarmored threespine stickleback
Southern Riparian Scrub
western yellow-billed cuckoo
arroyo chub San Fernando Valley spineflower
Coast (San Diego) horned lizard
burrowing owl Southern Riparian Scrub two-striped garter snake
least Bell's vireo
Southern California Threespine Stickleback Stream
rayless ragwort
yellow warbler
Cooper's hawk
Southern Willow Scrub
Valley Oak Woodland
yellow-breasted chat
Santa Ana sucker
two-striped garter snake
Southern Riparian Scrub
short-joint beavertail
Southern Willow Scrub
Southern Coast Live Oak Riparian Forest
Plummer's mariposa lily
California Orcutt grass
short-joint beavertail
western spadefoot
slender mariposa lily
slender-horned spineflower
Southern Coast Live Oak Riparian Forest
California Walnut Woodland
Southern Riparian Scrub
California Walnut Woodland
Valley Oak Woodland
Southern Sycamore Alder Riparian Woodland
California Walnut Woodland
Valley Oak Woodland Valley Oak Woodland
Valley Oak Woodland
Southern Sycamore Alder Riparian Woodland
Southern Riparian Scrub
Southern Coast Live Oak Riparian Forest
California Walnut Woodland
Southern Riparian Scrub
Southern Coast Live Oak Riparian Forest
California Walnut Woodland
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
California Walnut Woodland Southern Coast Live Oak Riparian Forest
Coast (San Diego) horned lizard
Southern Willow Scrub
Coast (San Diego) horned lizard
California Walnut Woodland
California Walnut Woodland
Southern Cottonwood Willow Riparian Forest
Southern Coast Live Oak Riparian Forest
California Walnut Woodland
Southern Coast Live Oak Riparian Forest
California Walnut Woodland
Southern Coast Live Oak Riparian Forest
Coast (San Diego) horned lizard
Southern Coast Live Oak Riparian Forest
mountain yellow-legged frog
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
Greata's aster
Southern Riparian Scrub
Valley Oak Woodland
Southern Mixed Riparian Forest Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
California Walnut Woodland Valley Oak Woodland
Davidson's bush mallow
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
slender-horned spineflower
burrowing owl
Southern Coast Live Oak Riparian Forest
Davidson's bush mallow
SIMI VALLEY WEST
SIMI VALLEY EAST
CAT MOUNTAIN
California Walnut Woodland
SAN FERNANDO
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest Southern Willow Scrub
Southern Cottonwood Willow Riparian Forest
California Walnut Woodland
least Bell's vireo
Southern Coast Live Oak Riparian Forest
Southern Mixed Riparian Forest
Southern Cottonwood Willow Riparian Forest
monarch butterfly
Davidson's bush mallow
Southern Coast Live Oak Riparian Forest
Plummer's mariposa lily Southern Coast Live Oak Riparian Forest
California Walnut Woodland
California Walnut Woodland
Nevin's barberry
Plummer's mariposa lily
Southern Mixed Riparian Forest
California Walnut Woodland
catcher
least Bell's vireo
Southern Sycamore Alder Riparian Woodland
Southern Coast Live Oak Riparian Forest
arroyo chub
Southern Riparian Scrub
Southern Coast Live Oak Riparian Forest
Southern Coast Live Oak Riparian Forest
Southern Willow Scrub
southern California rufous-crowned sparrow Santa Susana tarplant
San Fernando Valley spineflower
western yellow-billed cuckoo
Lyon's pentachaeta
two-striped garter snake
Santa Susana tarplant Coast (San Diego) horned lizard
Santa Susana tarplant
Davidson's bush mallow
San Fernando Valley spineflower
Lyon's pentachaeta
Santa Susana tarplant
Santa Susana tarplant
San Diego desert woodrat
Nevin's barberry
Riverside fairy shrimp
Plummer's mariposa lily
least Bell's vireo
Lyon's pentachaeta
western spadefoot
Santa Susana tarplant
Riversidian Alluvial Fan Sage Scrub
Santa Ana sucker
round-leaved filaree
Santa Susana tarplant
least Bell's vireo
California Orcutt grass
Santa Susana tarplant
San Fernando Valley spineflower
Santa Susana tarplant
Santa Susana tarplant
Appendix G : Landmark Village
CNDDB Special-Status Species Records
Project Site
USGS 7.5 minute Quadrangle Grid
CNDDB Area Feature
CNDDB Point Feature
N
0 0.5 1 2
Miles

4.4-E

Figure 3

NEWHALL RANCH HIGH COUNTRY
- Vegetation Communities and Sensitive Plant Locations

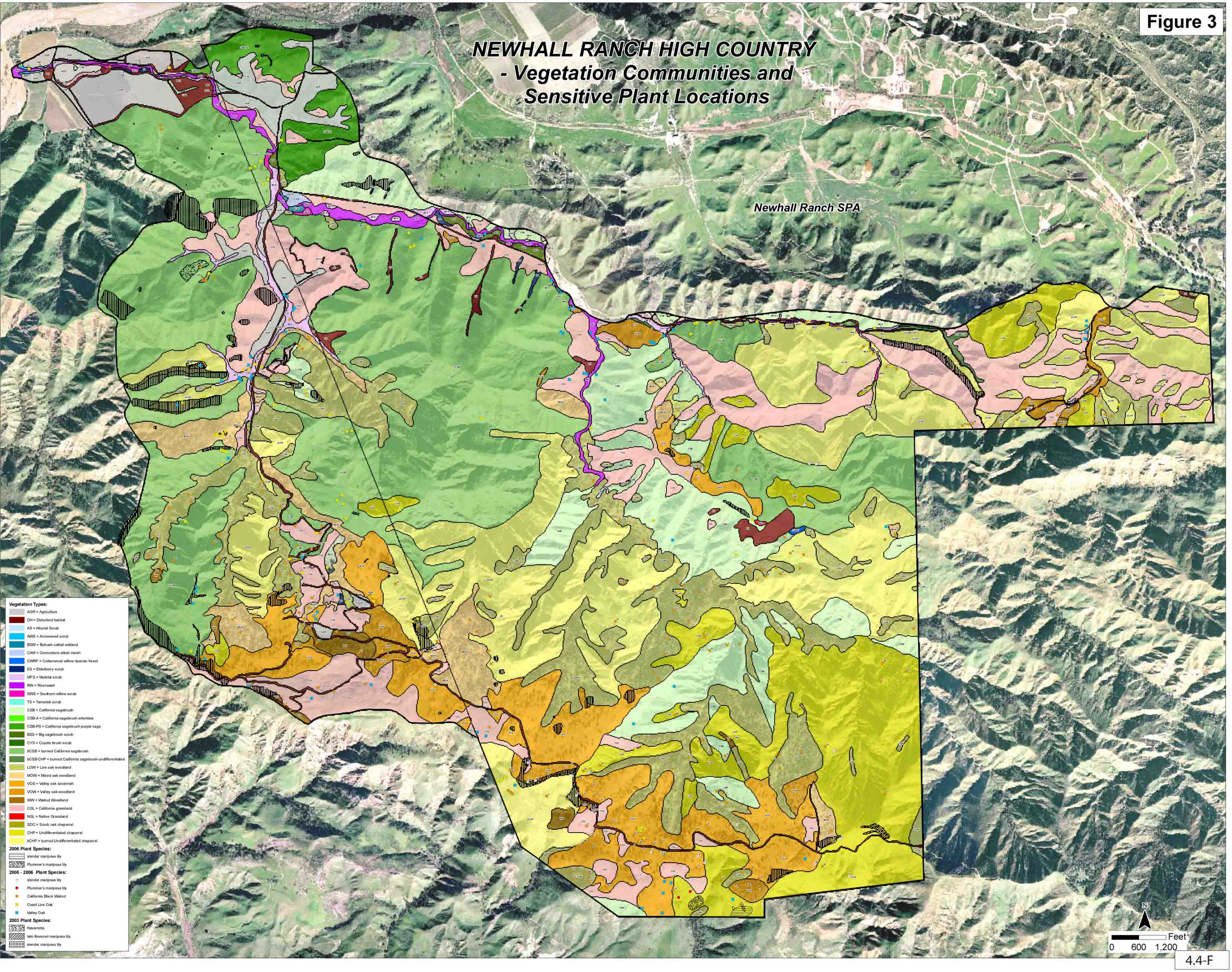
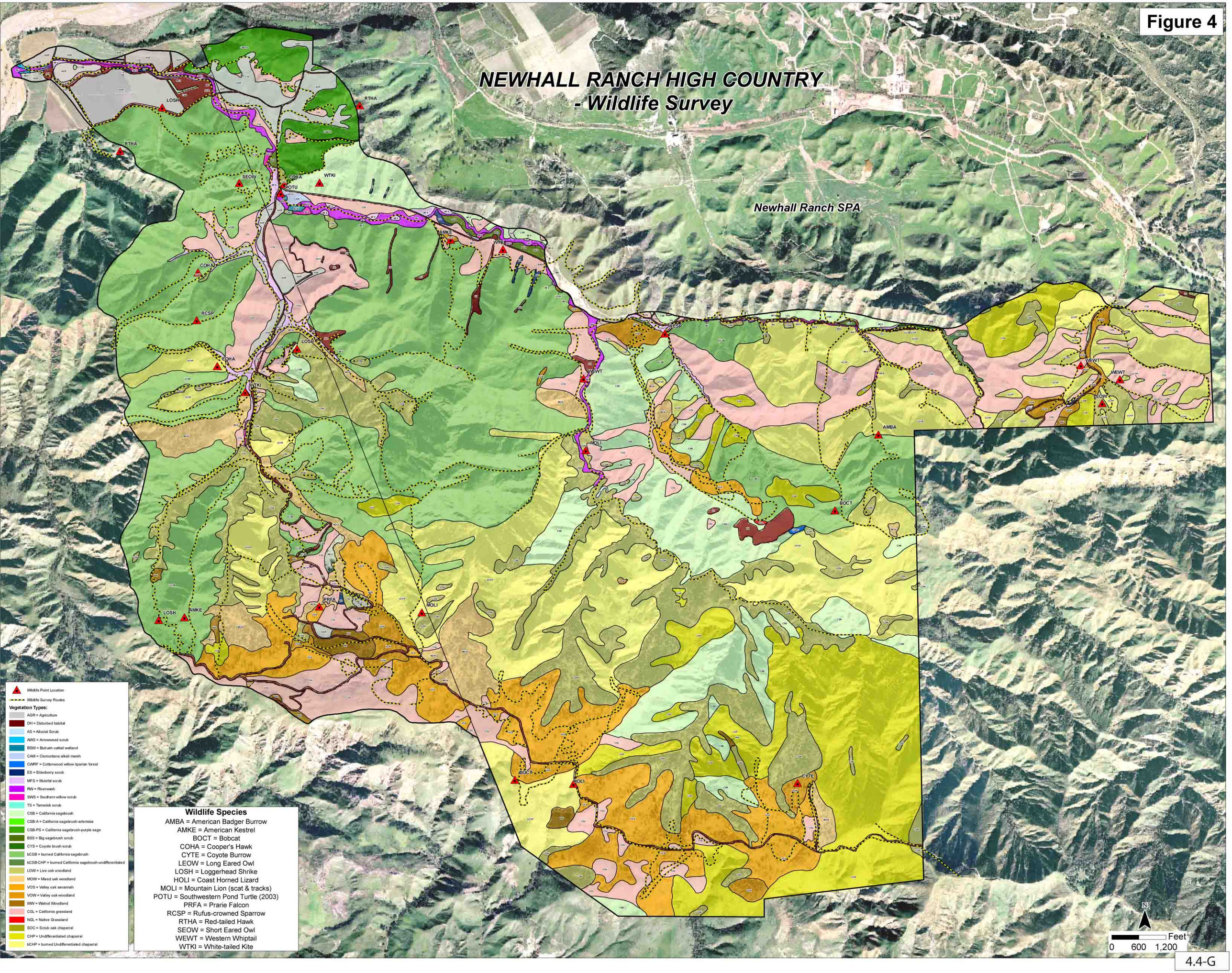
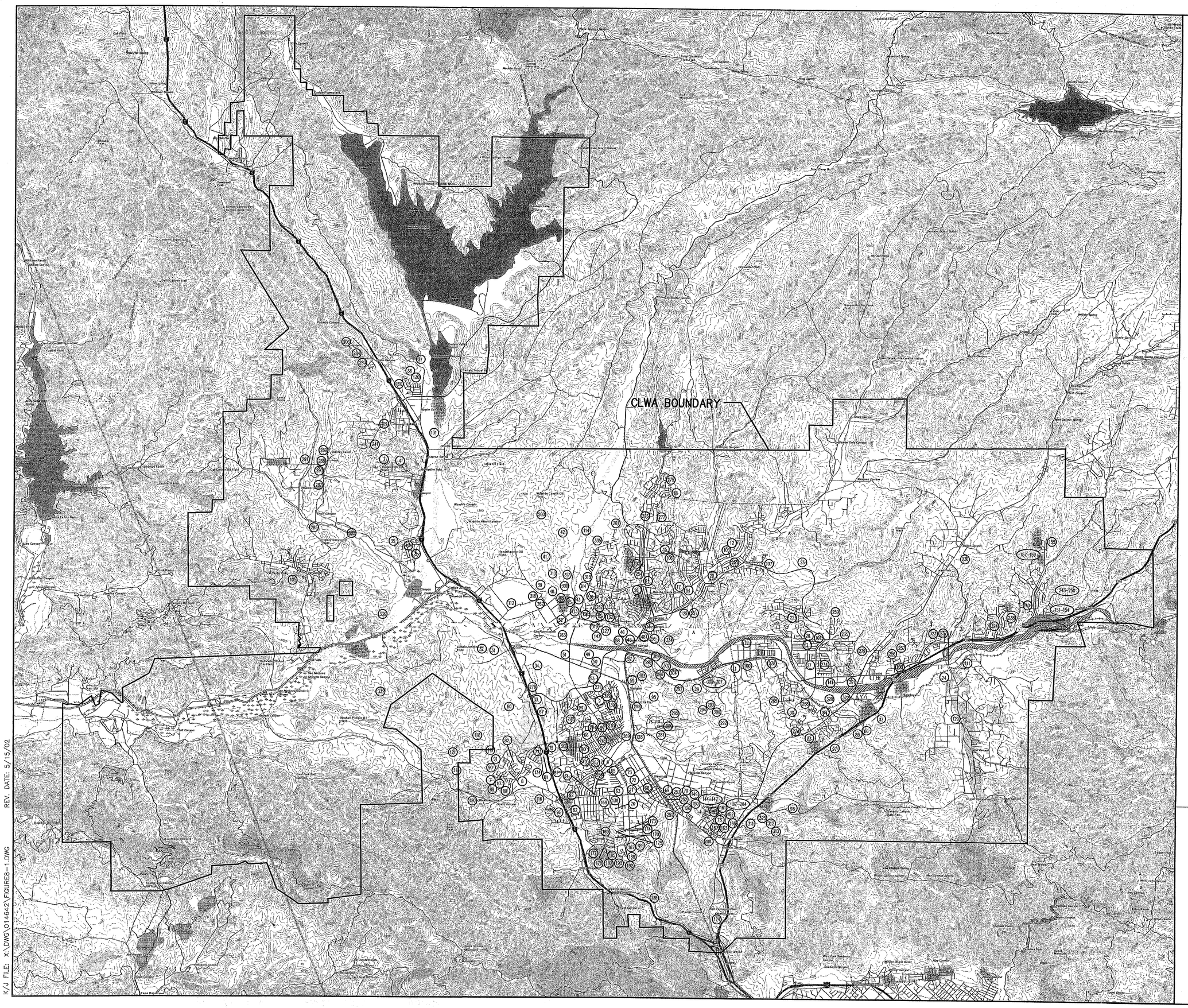
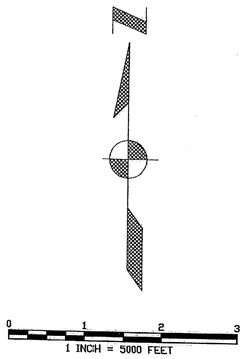


Figure 4

NEWHALL RANCH HIGH COUNTRY
- Wildlife Survey







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Castaic Lake Water Agency
Recycled Water Master Plan

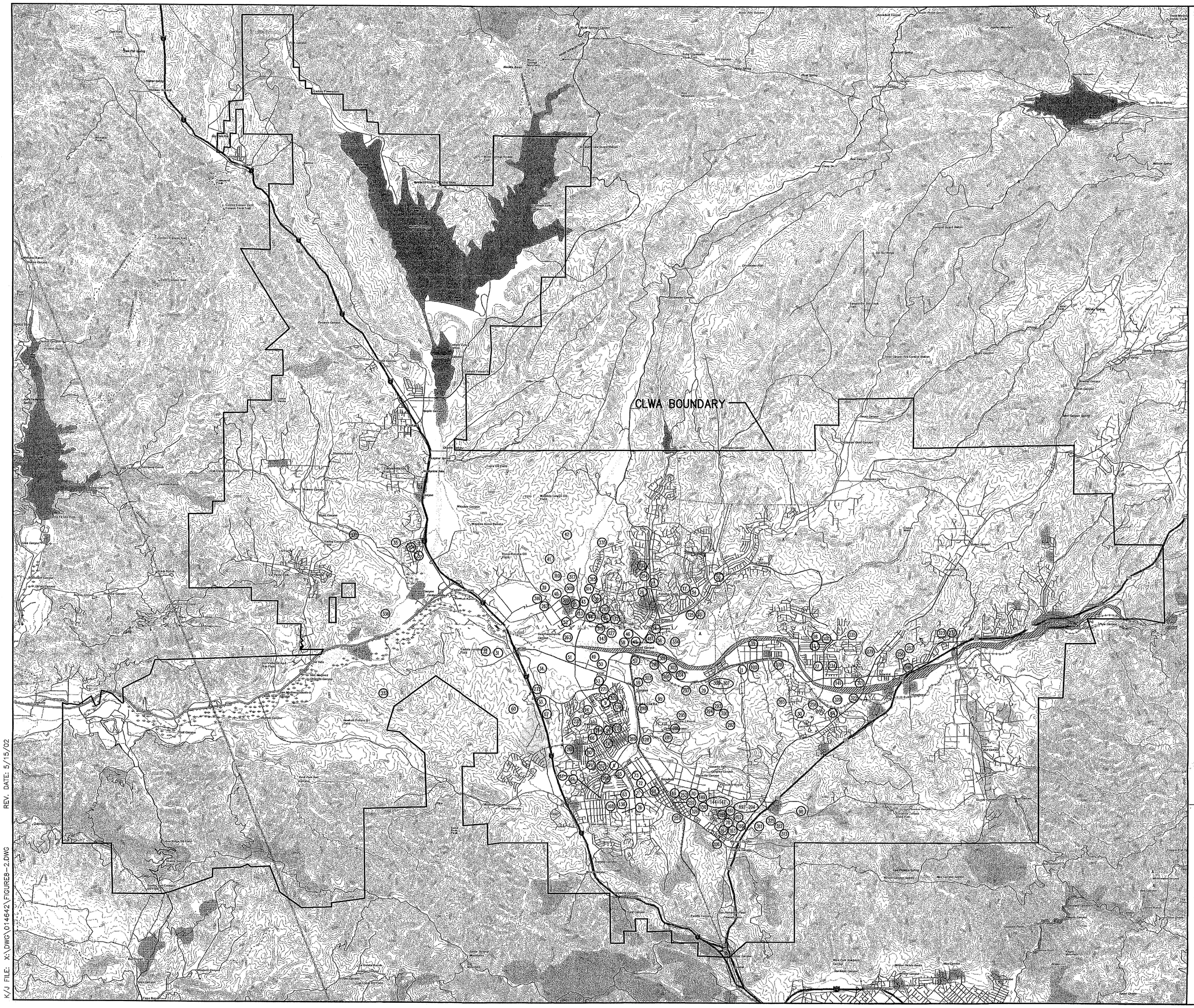
Potential Recycled Water Users

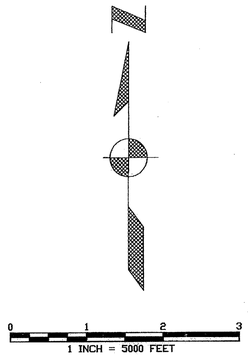
May 2002
K/J 014642.00

Figure 8–1

4.10-A

K/J FILE: X:\DWG\014642\FIGURE8-1.DWG REV. DATE: 5/15/02





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Castaic Lake Water Agency
Recycled Water Master Plan

Proposed Recycled Water Users

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Figure 8–2

4.10-B

K/J FILE: X:\DWG\014642\FIGURE8-2.DWG REV. DATE: 5/15/02

K/J FILE: X:\DWG\014642\FIGURE10-2.DWG REV. DATE: 5/15/02

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Recycled Water Master Plan

Proposed Recycled Water System

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Figure 10–2

4.10-C

N

0 1 2 3
1 INCH = 5000 FEET

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Castaic Lake Water Agency
Recycled Water Master Plan

Proposed Recycled Water System Pressure Zones

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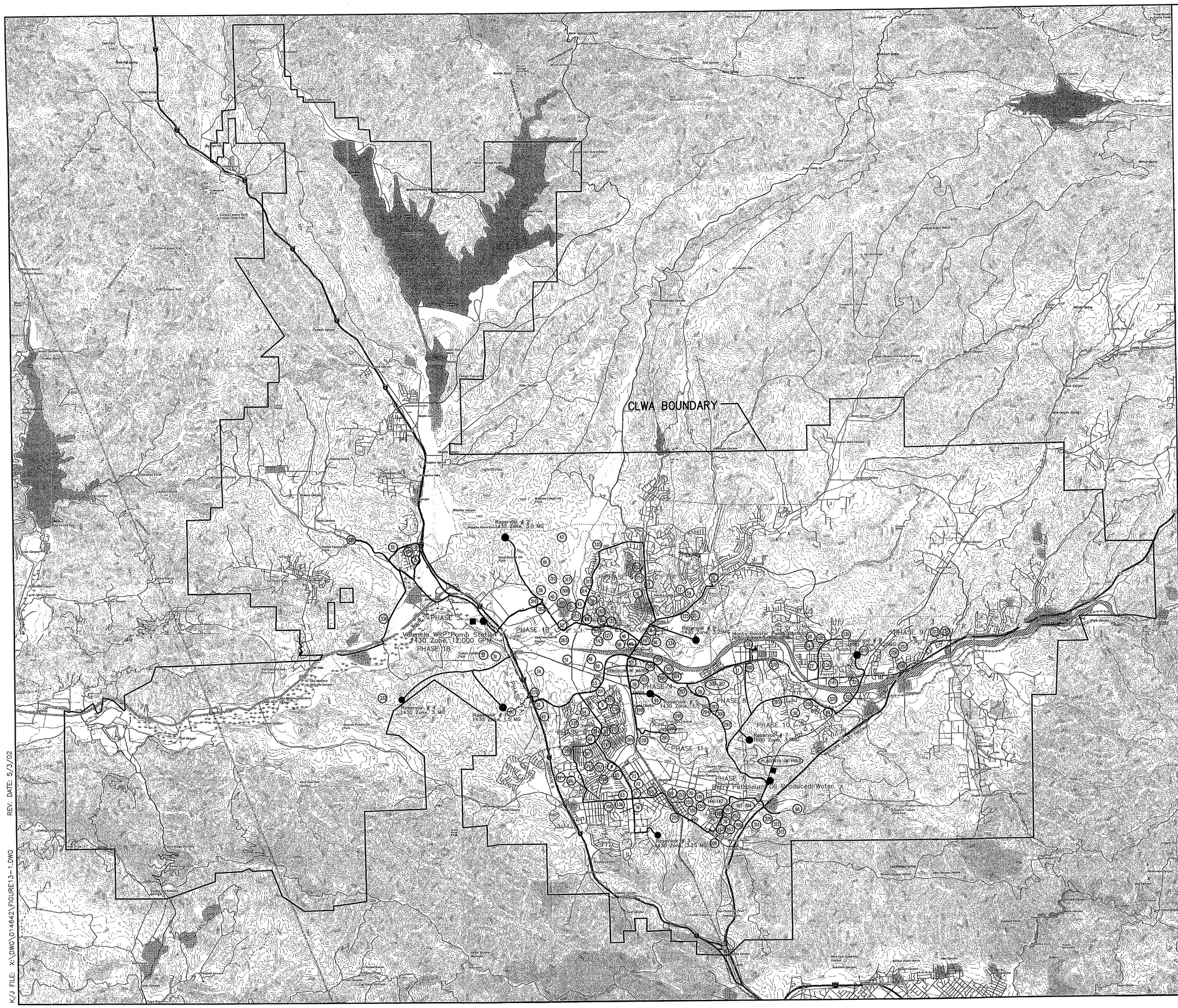
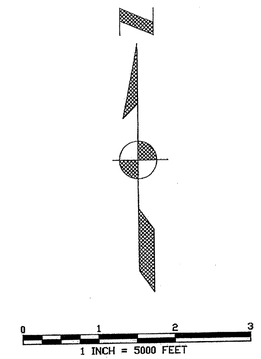
Figure 10–3

4.10-D

K/J FILE: X:\DWG\014642\FIGURE10-3.DWG
REV. DATE: 5/15/02





LEGEND

- PHASE DIVIDING LINE
- EXISTING PIPELINE
- PROPOSED PIPELINE
- RECYCLED WATER SOURCE AND PUMP STATION
- PROPOSED RESERVOIR
- PRESSURE REDUCING VALVE
- BOOSTER PUMP STATION

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Castaic Lake Water Agency
Recycled Water Master Plan

Phasing Plan

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Figure 13–1

4.10-E

K/J FILE: X:\DWG\014642\FIGURE13-1.DWG REV. DATE: 5/3/02