

David Magney Environmental Consulting

BIOLOGICAL RESOURCES OF LYONS CANYON RANCH, NEWHALL, CALIFORNIA

Prepared for:
THE COUNTY OF LOS ANGELES

On Behalf of:
D.R. HORTON

DMEC Mission Statement:
*To provide quality environmental consulting services with integrity
that protect and enhance the human and natural environment.*



February 2006



Biological Resources of Lyons Canyon Ranch, Newhall, California, California

Prepared for:

County of Los Angeles

Department of Regional Planning
Hall of Records (13th Floor), Room 1351
320 West Temple Street
Los Angeles, California 90012
Contact: Daryl Koutnik, Supervising Regional Planner
213/974-6411

On Behalf of:

D.R. Horton

21300 Victory Blvd., Suite 700
Woodland Hills, California 91367
Contact: Eric Taylor 310/665-3700

Prepared by:

David Magney Environmental Consulting

P.O. Box 1346
Ojai, California 93024-1346
Contact: David Magney, President 805/646-6045

This document should be cited as:

David Magney Environmental Consulting. 2005. Biological Resources of Lyons Canyon Ranch, Newhall, California, California. 3 February 2006. (PN 05-0201.) Ojai, California. Prepared for the County of Los Angeles, Los Angeles, California, on behalf of D.R. Horton, Woodland Hills, California.

TABLE OF CONTENTS

	PAGE
SECTION 1. PROJECT DESCRIPTION	1
LOCATION.....	1
PROPOSED PROJECT	1
PERMITS REQUIRED.....	4
SUMMARY OF SIGNIFICANT IMPACTS	5
SECTION 2. SETTING.....	9
SITE CHARACTERISTICS.....	9
SUMMARY OF PROJECT DESCRIPTION.....	9
Background, Location, and Setting	9
Project Characteristics.....	10
Project Design and Environmental Considerations	11
SEA BOUNDARIES.....	12
WATERSHED DESCRIPTION.....	12
GEOLOGY	15
MAPPED SOIL UNITS.....	18
Castaic Series.....	18
Yolo Series	18
Hanford Series.....	20
Saugus Series	20
Riverwash.....	20
HABITAT DESCRIPTIONS.....	20
Riparian Habitat	21
Upland Habitat	26
Disturbed Area.....	33
SPECIES ANTICIPATED ONSITE	34
PROJECT SITE FLORA AND FAUNA POPULATION ESTIMATES.....	34
CHARACTERISTICS OF THE SURROUNDING AREA	35
EXISTING LAND USES.....	35
OPEN SPACE RESERVES	38
SURROUNDING VEGETATION.....	38
FLORA AND FAUNA POPULATION ESTIMATES IN THE RANGE	39
PROJECT SITE RELATIONSHIP WITH SURROUNDING BIOTIC MOSAIC.....	39
OVERALL BIOLOGICAL VALUE OF THE AREA	43
SECTION 3. GENERAL BIOTA SURVEY	45
SURVEY DATES	45
PERSONNEL INVOLVED.....	46

METHODS.....	46
SURVEY METHODS.....	46
Floristic Surveys	47
Oak Tree Assessment.....	47
Wildlife Surveys	47
VEGETATION MAPPING METHODS.....	49
Mapping Upland Habitats.....	51
Mapping Wetland Habitats.....	51
LITERATURE SEARCH.....	51
BIOTA SURVEY RESULTS.....	52
FLORA.....	52
OAK TREES.....	53
FAUNA.....	53
SMALL MAMMAL TRAPPING.....	54
WILDLIFE HABITATS.....	56
WILDLIFE MOVEMENT	61
SECTION 4. SPECIAL-STATUS BIOLOGICAL RESOURCES	65
DEFINITIONS OF SPECIAL-STATUS SPECIES.....	65
SPECIAL-STATUS BOTANICAL RESOURCES	69
SPECIAL-STATUS PLANT SPECIES.....	69
Observed Special-Status Plant Species	76
SENSITIVE PLANT COMMUNITIES.....	78
SPECIAL-STATUS WILDLIFE RESOURCES	78
OBSERVED SPECIAL-STATUS WILDLIFE SPECIES.....	87
Cooper's Hawk (<i>Accipiter cooperii</i>).....	87
Barn Owl (<i>Tyto alba</i>) Nest	87
Oak Titmouse (<i>Baeolophus inornatus</i>)	87
Nuttall's Woodpecker (<i>Picoides nuttallii</i>)	88
San Diego Desert Woodrat (<i>Neotoma lepida intermedia</i>) Nest.....	88
SECTION 5. PROJECT IMPACTS	89
IMPACTS TO TREES AND SENSITIVE WOODLAND HABITAT.....	91
LOSS OF SOUTHERN CALIFORNIA BLACK WALNUT WOODLAND.....	91
LOSS OF OAK TREES, COAST LIVE OAK WOODLAND, COAST LIVE OAK RIPARIAN WOODLAND, AND VALLEY OAK WOODLAND	91
IMPACTS TO BIOLOGICAL LIFE HISTORY	93
DIRECT IMPACTS TO SPECIAL-STATUS PLANT SPECIES.....	93
Loss of Special-Status <i>Calochortus</i> Species Known Onsite	98
Loss of <i>Calystegia peirsonii</i> (Peirson's Morning-glory) Plants Known Onsite	98
Loss of <i>Juglans californica</i> var. <i>californica</i> (Southern California Black Walnut) Plants Known Onsite	99
Loss of <i>Ambrosia confertiflora</i> (Weakleaf Burweed) Plants Known Onsite	99
Loss of <i>Ericameria ericoides</i> ssp. <i>ericoides</i> (Mock Heather) Plants Known Onsite	99
Loss of <i>Navarretia hamata</i> ssp. <i>hamata</i> (Skunk Navarretia) Plants Known Onsite.....	99
Loss of Rare Plants Potentially Occurring Onsite	100

INDIRECT IMPACTS TO SPECIAL-STATUS PLANT SPECIES	100
Impacts of Increased Dust and Urban Pollutants on Special-Status Plant Species	100
Impacts of Invasive Exotic Plant Species Introduction into Natural Plant Communities	100
IMPACTS TO GENERAL WILDLIFE SPECIES	101
Loss of and Disturbance to Aquatic/Semi-aquatic Wildlife During Construction	101
Loss of and Disturbance to Amphibian Wildlife During Construction	101
Loss of and Disturbance to Reptile Wildlife During Construction	101
Loss of and Disturbance to Breeding and Nesting Birds During Construction	102
Loss of and Disturbance to Mammal Wildlife During Construction	102
DIRECT IMPACTS TO SPECIAL-STATUS WILDLIFE SPECIES	102
Loss of Cooper's Hawk (<i>Accipiter cooperii</i>) and Foraging and Nesting Habitat	105
Loss of Oak Titmouse (<i>Baeolophus inornatus</i>) and Foraging and Nesting Habitat	105
Loss of Nuttall's Woodpecker (<i>Picoides nuttallii</i>) and Foraging and Nesting Habitat..	106
Loss of Barn Owl (<i>Tyto alba</i>) Foraging and Nesting Habitat.....	106
Loss of San Diego Desert Woodrat (<i>Neotoma lepida intermedia</i>) and Habitat.....	106
Loss of Special-Status Reptiles Potentially Present	107
Loss of Special-Status Bird Species Potentially Present.....	108
Disturbance to Mountain Lion (<i>Puma concolor</i>) and Loss of Habitat.....	109
Disturbance to Ring-tailed Cat (<i>Bassariscus astutus</i>) and Loss of Habitat	110
Disturbance to Western Mastiff Bat (<i>Eumops perotis californicus</i>) and Loss of Habitat	110
INDIRECT IMPACTS TO SPECIAL-STATUS WILDLIFE SPECIES.....	110
Impacts Related to Noise.....	110
Impacts Related to Human Activity	114
Impacts Related to Night Lighting	114
IMPACTS TO NATURAL VEGETATION, INCLUDING SENSITIVE HABITATS	114
LOSS OF GRASSLAND HABITAT	116
LOSS OF LICHEN-ROCK OUTCROP HABITAT	116
LOSS OF COASTAL SAGE SCRUB.....	116
LOSS OF CHAPARRAL HABITAT.....	116
LOSS OF SOUTHERN CALIFORNIA BLACK WALNUT WOODLAND.....	117
LOSS OF COAST LIVE OAK WOODLAND AND COAST LIVE OAK RIPARIAN WOODLAND	117
LOSS OF VALLEY OAK WOODLAND	118
LOSS OF WETLAND HABITATS AND PLANT COMMUNITIES.....	118
Corps Jurisdictional Waters and Wetlands	119
CDFG Jurisdictional Riparian Habitats	120
Loss of Sensitive Wetland Plant Communities.....	120
LOSS OF WILDLIFE FORAGING AND COVER HABITATS.....	121
IMPACTS OF FUEL MODIFICATION.....	122
IMPACTS FROM LANDSCAPING.....	128
IMPACTS TO SEA INTEGRITY.....	129
IMPACTS TO NATURAL OPEN AREA	131

IMPACTS TO WILDLIFE CORRIDORS & HABITAT LINKAGES.....	131
LOSS OF WILDLIFE MOVEMENT PATHS ONSITE.....	132
INTERFERENCE WITH WILDLIFE MOVEMENT WITHIN LYON CANYON.....	132
CUMULATIVE IMPACTS TO BIOLOGICAL RESOURCES AND SEA INTEGRITY	134
CUMULATIVE IMPACTS TO OAK TREES, COAST LIVE OAK WOODLAND, COAST LIVE OAK RIPARIAN WOODLAND, AND VALLEY OAK WOODLAND....	134
CUMULATIVE IMPACTS TO BIOLOGICAL LIFE HISTORY.....	134
Cumulative Impacts to Special-Status Plant Species.....	134
Cumulative Impacts to General Wildlife Species	135
Cumulative Impacts to Special-Status Wildlife Species	136
CUMULATIVE IMPACTS TO NATURAL VEGETATION, INCLUDING SENSITIVE HABITATS.....	139
Cumulative Impacts to Grassland Habitat.....	139
Cumulative Impacts to Lichen-Rock Outcrop Habitat	139
Cumulative Impacts to Coastal Sage Scrub Habitat.....	139
Cumulative Impacts to Chaparral Habitat.....	139
Cumulative Impacts to Coast Live Oak Woodland and Coast Live Oak Riparian Woodland Habitats.....	140
Cumulative Impacts to Valley Oak Habitats	140
Cumulative Impacts to Wildlife Foraging and Cover Habitats.....	140
CUMULATIVE IMPACTS OF FUEL MODIFICATION	140
CUMULATIVE IMPACTS TO SEA INTEGRITY	141
CUMULATIVE IMPACTS TO NATURAL OPEN AREAS.....	142
CUMULATIVE IMPACTS TO WILDLIFE MOVEMENT WITHIN LYON CANYON ..	142
SECTION 6. MITIGATION MEASURES	146
MITIGATION FOR IMPACTS TO TREES AND SENSITIVE WOODLAND HABITAT.....	146
MITIGATION FOR LOSS OF SOUTHERN CALIFORNIA BLACK WALNUT WOODLAND.....	146
MITIGATION FOR LOSS OF OAK TREES, COAST LIVE OAK WOODLAND, COAST LIVE OAK RIPARIAN WOODLAND AND VALLEY OAK WOODLAND....	147
MITIGATION FOR IMPACTS TO BIOLOGICAL LIFE HISTORY	149
MITIGATION FOR DIRECT IMPACTS TO SPECIAL-STATUS PLANT SPECIES.....	149
Mitigation for Loss of Special-Status Calochortus Species Known Onsite	149
Mitigation for Loss of Calystegia peirsonii (Peirson's Morning-glory) Plants Known Onsite	153
Mitigation for Loss of Juglans californica var. californica (Southern California Black Walnut) Plants Known Onsite	153
Mitigation for Loss of Ambrosia confertiflora (Weakleaf Burweed) Plants Known Onsite	153
Mitigation for Loss of Ericameria ericoides ssp. ericoides (Mock Heather) Plants Known Onsite	154
Mitigation for Loss of Navarretia hamata ssp. hamata (Skunk Navarretia) Plants Known Onsite	154
Mitigation for Loss of Rare Plants Potentially Occurring Onsite	154

MITIGATION FOR INDIRECT IMPACTS TO SPECIAL-STATUS PLANT SPECIES..	155
Mitigation for Impacts of Increased Dust and Urban Pollutants on Special-Status Plant Species	155
Mitigation for Impacts of Invasive Exotic Plant Species' Introduction into Natural Plant Communities.....	156
MITIGATION FOR IMPACTS TO GENERAL WILDLIFE SPECIES	156
Mitigation for Loss of and Disturbance to Aquatic/Semi-aquatic Wildlife During Construction.....	156
Mitigation for Loss of and Disturbance to Amphibian Wildlife During Construction..	157
Mitigation for Loss of and Disturbance to Reptile Wildlife During Construction.....	157
Mitigation for Loss of and Disturbance to Breeding and Nesting Birds During Construction	157
Mitigation for Loss of and Disturbance to Mammal Wildlife During Construction	158
MITIGATION FOR DIRECT IMPACTS TO SPECIAL-STATUS WILDLIFE SPECIES	158
Mitigation for Loss of Cooper's Hawk (<i>Accipiter cooperii</i>) and Foraging and Nesting Habitat	159
Mitigation for Loss of Oak Titmouse (<i>Baeolophus inornatus</i>) and Foraging and Nesting Habitat	159
Mitigation for Loss of Nuttall's Woodpecker (<i>Picoides nuttallii</i>) and Foraging and Nesting Habitat	159
Mitigation for Loss of Barn Owl (<i>Tyto alba</i>) Foraging and Nesting Habitat.....	160
Mitigation for Loss of San Diego Desert Woodrat (<i>Neotoma lepida intermedia</i>) and Habitat.....	160
Mitigation for Loss of Special-Status Reptiles Potentially Present.....	160
Mitigation for Loss of Special-Status Bird Species Potentially Present.....	161
Mitigation for Disturbance to Mountain Lion (<i>Puma concolor</i>) and Loss of Habitat	161
Mitigation for Disturbance to Ring-tailed Cat (<i>Bassariscus astutus</i>) and Loss of Habitat	161
Mitigation for Disturbance to Western Mastiff Bat (<i>Eumops perotis californicus</i>) and Loss of Habitat.....	161
MITIGATION MEASURES FOR INDIRECT IMPACTS TO SPECIAL-STATUS WILDLIFE SPECIES.....	162
Mitigation for Impacts Related to Noise.....	162
Mitigation for Impacts Related to Human Activity	163
Mitigation for Impacts Related to Night Lighting.....	163
MITIGATION FOR IMPACTS TO NATURAL VEGETATION, INCLUDING SENSITIVE HABITATS.....	164
MITIGATION FOR LOSS OF GRASSLAND	164
MITIGATION FOR LOSS OF LICHEN ROCK OUTCROP HABITAT.....	164
MITIGATION FOR LOSS OF COASTAL SAGE SCRUB.....	164
MITIGATION FOR LOSS OF CHAPARRAL.....	166
MITIGATION FOR LOSS OF SOUTHERN CALIFORNIA BLACK WALNUT WOODLAND	166
MITIGATION FOR LOSS OF COAST LIVE OAK WOODLAND AND COAST LIVE OAK RIPARIAN WOODLAND.....	167
MITIGATION FOR LOSS OF VALLEY OAK WOODLAND	167

MITIGATION FOR LOSS OF WETLAND HABITATS AND PLANT COMMUNITIES	168
MITIGATION FOR LOSS OF WILDLIFE FORAGING AND COVER HABITATS.....	171
MITIGATION FOR IMPACTS OF FUEL MODIFICATION	171
MITIGATION FOR IMPACTS FROM LANDSCAPING.....	171
MITIGATION FOR IMPACTS TO SEA INTEGRITY.....	172
MEASURES TO PROTECT/MANAGE OPEN AREAS	172
MITIGATION FOR INTERFERENCE WITH WILDLIFE MOVEMENT WITHIN LYON CANYON	172
SECTION 7. SEA DESIGN COMPATIBILITY CRITERIA	173
PROJECT CONSISTENCY WITH SEA CUP COMPATIBILITY CRITERIA	173
LAND USES COMPATIBLE WITH GENERAL PLAN SEA REGULATIONS.....	174
LAND USES COMPATIBLE AS DETERMINED BY BIOTIC SURVEY	174
SECTION 8. MONITORING PROGRAM	175
MONITORING PROGRAM FOR SPECIAL-STATUS PLANT SPECIES.....	175
MONITORING PROGRAM FOR SPECIAL-STATUS <i>CALOCHORTUS</i> SPECIES.....	175
MONITORING PROGRAM FOR <i>CALYSTEGIA PEIRSONII, AMBROSIA CONFERTIFLORA, ERICAMERIA ERICOIDES</i> SSP. <i>ERICOIDES</i> , & <i>NAVARRETIA HAMATA</i> SSP. <i>HAMATA</i>	176
MONITORING PROGRAM FOR INDIRECT IMPACTS TO SPECIAL-STATUS PLANT SPECIES.....	177
MONITORING PROGRAM FOR GENERAL WILDLIFE.....	177
MONITORING PROGRAM FOR AQUATIC/SEMI-AQUATIC WILDLIFE.....	177
MONITORING PROGRAM FOR BREEDING AND NESTING BIRDS.....	177
MONITORING PROGRAM FOR AMPHIBIAN, REPTILE, AND MAMMAL WILDLIFE	178
MONITORING PROGRAM FOR SPECIAL-STATUS WILDLIFE SPECIES.....	178
MONITORING PROGRAM FOR NOISE IMPACTS TO SPECIAL-STATUS WILDLIFE SPECIES	179
MONITORING PROGRAM FOR NATURAL VEGETATION, INCLUDING SENSITIVE HABITATS	179
MONITORING PROGRAM FOR LANDSCAPING.....	181
MONITORING PROGRAM FOR SEA INTEGRITY AND OPEN AREAS	181
CITATIONS	182
REFERENCES CITED.....	182
PERSONAL COMMUNICATIONS.....	185
ACKNOWLEDGEMENTS	186
GUIDELINE COMPLIANCE CHECKLIST	186
APPENDICES	187
APPENDIX A. INITIAL STUDY QUESTIONNAIRE.....	A-1
APPENDIX B. PHOTOGRAPH KEY MAP OF LYONS CANYON RANCH AND SURROUNDING AREA WITH PHOTOGRAPHS.....	B-1
APPENDIX C. PLANT SPECIES OBSERVED AT LYONS CANYON RANCH.....	C-1
APPENDIX D. WILDLIFE OBSERVED AND EXPECTED AT LYONS CANYON RANCH OVERSIZED MAPS: (1) COLOR U.S.G.S. OAT MOUNTAIN QUAD SHEET; AND (2) LYONS CANYON RANCH SITE PLANS	D-1
	OVERSIZED MAPS

LIST OF FIGURES

FIGURE	PAGE
1. General Location Map of the Lyons Canyon Ranch Project Site	2
2. Lyons Canyon Ranch Project Site on Aerial Photograph Base	3
3. SEAs in the Vicinity of Lyons Canyon Ranch	13
4. Watersheds in the Vicinity of Lyons Canyon Ranch.....	14
5. Lyons Canyon Ranch Geology	16
6. Significant Landforms in the Vicinity of Lyons Canyon Ranch	17
7. Mapped Soil Units of Lyons Canyon Ranch	19
8. Vegetation Observed and Classified at Lyons Canyon Ranch	23
9. Lyon Canyon Ranch Regional Context Map	36
10. Surrounding Land Uses and Their Effect on Adjacent Watersheds	37
11. Existing Land Uses, Including Open Space Reserves in Areas Surrounding Lyons Canyon Ranch.....	40
12. Vegetation in Areas Surrounding Lyons Canyon Ranch.....	41
13. Survey Paths and Data Collection Waypoints within Lyons Canyon Ranch	48
14. Small Mammal Trapping Transects	50
15. Small Mammal Trapping Results	55
16. California Wildlife Habitat Relationship (CWHR) Habitats of Lyons Canyon Ranch..	57
17. Wildlife Corridors of the Newhall Region.....	63
18. Wildlife Travel Paths at Lyons Canyon Ranch.....	64
19. Distribution of CNDDDB-Tracked Sensitive Species and Habitats in the Vicinity of Lyons Canyon Ranch.....	70
20. Special-Status Biological Resources Observed at Lyons Canyon Ranch	71
21. Grading Impacts to Lyons Canyon Ranch Vegetation, including Trees	90
22. Grading Impacts to Special-Status Species Observed at Lyons Canyon Ranch.....	94
23. Los Angeles County Fire Department Brush Clearance Requirements.....	124
24. Impacts of Fuel Modification to Lyons Canyon Ranch Vegetation	125
25. Impacts of Fuel Modification to Lyons Canyon Ranch Special-Status Species.....	126
26. Impacts of Fuel Modification to Lyons Canyon Ranch SEAs.....	127
27. Grading Impacts to SEA Integrity	130
28. Impacts to Wildlife Travel Paths on Lyons Canyon Ranch.....	133
29. Potential <i>Calochortus</i> Mitigation Areas	151

LIST OF TABLES

TABLE	PAGE
1. Lyons Canyon Ranch Land Use Summary	4
2. Summary of the Lyons Canyon Ranch Project Significant Impacts	5
3. Classification and Area of Lyons Canyon Ranch Vegetation Alliances	22
4. Lyons Canyon Ranch Surrounding Vegetation Alliance Acreage Totals	42
5. Oak Tree Inventory within the Lyons Canyon Ranch Project Site.....	53
6. Small Mammal Trapping at Lyons Canyon Ranch.....	54
7. California Wildlife Habitat Relationship (CWHR) Habitats at Lyons Canyon Ranch	56
8. Definitions of Special-Status Species	66
9. California Native Plant Society List (CNPS List)	67
10. California Native Plant Society R-E-D Code	67
11. California Natural Diversity Database Element Ranking System	68
12. Special-Status Plant Species with Potential to Occur at Lyons Canyon Ranch	72
13. Sensitive Habitats Tracked in the Vicinity of Lyons Canyon Ranch.....	79
14. Special-Status Wildlife Species with Potential to Occur at Lyons Canyon Ranch	80
15. Impacts of Project on Onsite Oak Trees	92
16. Impacts of Project on Onsite Heritage Oak Trees	92
17. Observed Sensitive Plant Species Impacts Matrix.....	96
18. Observed Sensitive Wildlife Species Impacts Matrix	104
19. Noise Levels of Construction Equipment	113
20. Project Impact Area for Each Vegetation Type Onsite.....	115
21. Summary of All Jurisdictional Waters, Wetland, and Riparian Areas at Lyons Canyon Ranch.....	118
22. Impact Area of Fuel Modification to Lyons Canyon Ranch Vegetation Alliances	128
23. Cumulative Projects List (City of Santa Clarita)	143
24. Cumulative Projects List (Unincorporated Area of Los Angeles County)	144