

Final

MITIGATED NEGATIVE DECLARATION

Project Title

RANCHO POTRERO EQUESTRIAN CENTER

Capital Improvement Project No. CI-4307



Lead Agency

City of Thousand Oaks
2100 East Thousand Oaks Boulevard
Thousand Oaks, CA 91362

Contact Person

Greg Smith, Senior Planner
Community Development Department
(805) 449-2329 / gsmith@toaks.org

Public Review Period

August 9 thru August 29, 2005 (20 days)

Disclaimer

This Mitigated Negative Declaration (MND) was prepared in accordance with State and City CEQA Guidelines and is intended to be an informational document, fully disclosing the potential environmental effects of the proposed project. It does not imply that other aspects of the proposal are beneficial, detrimental, or of no significance.

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- Appendix A – Location Map/Site Plan
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RESOURCE MANAGEMENT AGENCY

county of ventura

Planning Division

Christopher Stephens
Director

August 25, 2005

Greg Smith, Senior Planner
Community Development Department, Planning Division
City of Thousand Oaks
2100 East Thousand Oaks Boulevard
Thousand Oaks, CA 91362-2903

FAX #: (805) 449-2350

SUBJECT: CIP Project No. CI- 4307 (Equestrian Center); MND

Thank you for the opportunity to review and comment on the above subject document. Attached are the comments that we have received resulting from an intra-county review of the projects.

Any responses to these comments should be sent directly to the commenter, with a copy to Carl Morehouse, Ventura County Planning Division, L#1740, 800 S. Victoria Avenue, Ventura, CA 93009.

If you have any questions regarding any of the comments, please contact the appropriate respondent. Overall questions may be directed to Carl Morehouse at (805) 654-2476.

Sincerely,



Christopher Stephens
County Planning Director

Attachment

County RMA Reference Number 02-092-1

Post-it® Fax Note	7671	Date	8/25/05	# of pages	8
To	G. Smith	From	C. Morehouse		
Co./Dept.		Co.			
Phone #		Phone #			
Fax #	449-2350	Fax #			



Response to Public Comments

Ventura County Resource Management Agency – letter from Christopher Stevens, Planning Director dated: August 25, 2005

The Final MND is hereby amended to include these comments. No response is required.



Ventura County
Watershed Protection District
Water Resources Division

MEMORANDUM

DATE: August 22, 2005

TO: Carl Morehouse, RMA – Planning Division

FROM: David Panaro, R.G., PWA – Water Resources Division

SUBJECT: RMA 02-092-1, Mitigated Negative Declaration (MND), Rancho Potrero Equestrian Center.

Project Description

To allow the permanent use of an existing equestrian facility; relocation of the primary access driveway with Via Andrea; installation of new entry signage on Lynn Road; disabled access upgrades; new landscaping and perimeter fencing; construction of new rental office, public restroom, hay, equipment sheds and upgraded horse-washing facilities; connection of the facility to the City's sewer system; grading as needed for stormwater management purposes, including reconstruction of an existing bio-swale; removal of fencing and pipe corrals from adjacent wetland buffer area, including the reconstruction of internal gravel road and relocation of caretaker's residence.

The project site is located at 5350 West Potrero Rd. and west of the Community of Newbury Park.

Comments

We have reviewed the environmental factors that might have a potential affect on water resources. The checklist from the environmental factors Issues and Supporting Information Sources, specifically Section 4. Water.. Items f, g, h and I impacts have been deemed Potentially Significant Unless Mitigation Incorporated and No Impact. We concur with these findings.

After reviewing Issue No. 19 (Explanation for Checklist Responses, Initial Study Addendum Information, Section 4 – Water) for Potential Environmental Impacts listing Items f, g, h and I, we find no additional comments are required regarding the Potential Environmental Impact Items.

The document's Rancho Potrero Water Quality Management Study, Chapter 4 - Review of Potential Water Contamination Sources and Existing Management Practices, includes: Subsection 4.1 – Description of all animal waste handling, collection, storage and practices; Subsection 4.2 – Animal washing and watering; and Subsection 4.3 – Best Management practices currently being used to protect surface water and groundwater. These sections

identify and describe the uses from the facility that are potential sources of contamination, including any and all best management practices used to minimize water contamination.

A review was conducted of Chapter 6 – Groundwater Assessment; Subsection 6.1 – Groundwater Conditions; Subsection 6.2 – Groundwater Monitoring Well Installation and Subsection 6.3 – Groundwater Quality Sampling. We find that the assessment of the project area subsurface groundwater provides a complete analysis of the current groundwater quality conditions. The onsite monitoring wells should be retained for the life of the project as a continual source of groundwater monitoring.

Our records show one abandoned water well located within the project area, identified as State Well Number: (SWN) 01N20W21L01S. This well shall be destroyed under a Water Well Destruction Permit obtained through the County of Ventura – Public Works Agency prior to approval of the MND. A second abandoned water well described in the document identified as SWN: 01N20W21J01S is located offsite and is the responsibility of the adjacent property owner.

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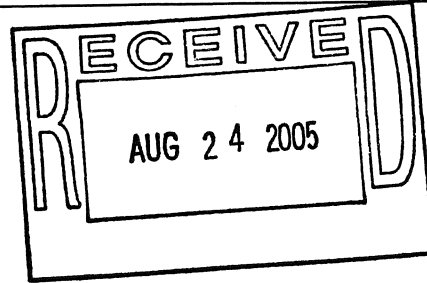
f:\wris\archive3\ma02-092-1

Response to Public Comments

Ventura County Watershed Protection District – memorandum from David
Panaro, R.G, dated: August 22, 2005

The Final MND is hereby amended to include these comments. No response is required.

August 23, 2005



Greg Smith
City of Thousand Oaks
Community Development Department, Planning Division
2100 Thousand Oaks Blvd.
Thousand Oaks, CA 91362-2903

**DRAFT MITIGATED NEGATIVE DECLARATION FOR RANCHO POTRERO
EQUESTRIAN CENTER CAPITAL IMPROVEMENT PROJECT NO. CI-4307**

The Environmental Health Division (EHD) staff reviewed the information submitted for the subject project and comments that the proposed project may have impacts to public health related to vectors from the animal waste and water impoundments. Compliance with best management practices and applicable State regulations will reduce potential impacts to a level considered less than significant.

EHD recommends that the following items be incorporated with the proposed project:

1. The storage, handling, and disposal of animal wastes shall be in a manner that will not create or promote potential vector breeding sources. This can be accomplished by storing the waste in water tight containers with tight fitting lids and removed from the property at least once each week, or by other methods approved by the enforcement agency.
2. Water impoundment(s) should be maintained in a manner which will not create mosquito breeding sources.
3. EHD recommends consultation with the EHD-Vector Control staff regarding a mosquito abatement/control plan. The following items are recommended to be included in the plan:
 - a. Proposed physical control measures that will be utilized to promote drainage.
 - b. Proposed chemical and biological control measures to be utilized if mosquito breeding occurs.

- c. Mosquito monitoring program.
- d. Design details, including cross-sections of all salt marsh and drainage areas.

For more information on vector control measures please contact Randy Smith at 654-2816. If you have any questions regarding this correspondence, please call me at 654-2811.



MELINDA TALENT
LAND USE SECTION
ENVIRONMENTAL HEALTH DIVISION

c: Randy Smith, EHD

Response to Public Comments

Ventura County Environmental Health Division – memorandum from Melinda
Talent, dated: August 23, 2005

The Final MND is hereby amended to include these comments. No response is required.

AUG 23 2005

**VENTURA COUNTY
AIR POLLUTION CONTROL DISTRICT**
Memorandum

TO: Carl Morehouse, Planning

DATE: August 22, 2005

FROM: K.D. Otani 

SUBJECT: Request for Review Mitigated Negative Declaration for the Rancho
Potrero Equestrian Center Capital Improvement Project No. CI 4307,
Thousand Oaks (Ref. No. 02-092-1)

Air Pollution Control District staff has reviewed the subject project, which is improvements to the Rancho Potrero Equestrian center in order to establish it as a permanent facility. Subject project is located at 5350 West Potrero Road, approximately 500 feet west of the National Park entrance to Rancho Sierra Vista City within an unincorporated area of Ventura County. Project is being sponsored by the City of Thousand Oaks.

The document is complete for the purpose of evaluating air quality impacts. No significant air quality impacts are expected to result from the project. The following are APCD's responses to Section 5, Air Quality, of the initial study checklist for the subject project.

Regional Air Quality Impacts

Based on information provided by the applicant, air quality impacts will be below the 25 pounds per day threshold for reactive organic compounds and oxides of nitrogen as described in the Ventura County Air Quality Assessment Guidelines. Therefore, the project will not have a significant impact on regional air quality.

Local Air Quality Impacts

Based on information in the project application, the subject project will generate local air quality impacts but those impacts are not likely to be significant.

We do concur with the operational mitigation measures to be implemented to decrease the amount of fugitive dust and particulate matter that may result due to amount of exposed dirt. The District also recommends the following conditions be placed on the permit to help minimize fugitive dust and particulate matter that may result from any construction or grading activities on the site:

- 1) All clearing, grading, earth moving, or excavation activities shall cease during periods of high winds (i.e., greater than 15 miles per hour averaged over one hour) to prevent excessive amounts of fugitive dust.
- 2) All trucks that will haul excavated or graded material off site shall comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2) and (c)(4) as amended, regarding the prevention of such material spilling onto public streets and roads.
- 3) All unpaved on-site roads shall be periodically watered or treated with environmentally-safe dust suppressants to prevent excessive amounts of dust.
- 4) The area disturbed by clearing, grading earth moving, or excavation operations shall be minimized to prevent excessive amounts of fugitive dust.
- 5) All active portions of the site shall be either periodically watered or treated with environmentally-safe dust suppressants to prevent excessive amounts of dust.
- 6) Construction equipment engines shall be maintained in good condition and in proper tune as per manufacturers' specifications.

If you have any questions, contact me by telephone at (805) 645-1422 or by email at kd@vacapcd.org.

Response to Public Comments

Ventura County Air Pollution Control District – memorandum from K.D. Otani,
dated: August 23, 2005

The Final MND is hereby amended to include these comments. Recommended conditions to minimize and particulate matter will be imposed on the project. No further response is necessary.

AUG 22 2005



**PUBLIC WORKS AGENCY
TRANSPORTATION DEPARTMENT
Traffic, Advance Planning & Permits Division
MEMORANDUM**

DATE: August 19, 2005

TO: Resource Management Agency, Planning Division
Attention: Carl Morehouse

FROM: *WHL/KBA*
Nazir Lalani, Deputy Director

SUBJECT: Review of Document 02-092-1

Rancho Potrero Equestrian Center to replace the existing Two Winds Ranch temporary equestrian facility, which is located in another part of the project site.

South of Lynn Road from a point about 400 feet south of westerly terminus of Potrero Road to about 600 feet west of Rancho Dos Vientos Drive.

Lead Agency: **The City of Thousand Oaks**

The Public Works Agency -- Transportation Department has reviewed the subject Mitigated Negative Declaration (MND) as proposed by the City of Thousand Oaks. This project is to construct the Rancho Potrero Equestrian Center to replace the existing Two Winds Ranch, a temporary equestrian facility with a permanent facility located in another part of the same project site. Our comments are as follows:

1. We generally concur with the MND for those areas under the purview of the Transportation Department. The MND states that the activities and number of boarded horses at the new equestrian center are comparable to those at the existing Two Winds Ranch equestrian center. Therefore, the cumulative project impacts of the project on the County Regional Road Network is less than significant and no traffic impact mitigation fee is owed to the County. However, should another activity be envisioned at the existing site now or in the future, that project should not be allowed credit for any traffic generated by the Two Winds Ranch or other users, and all future traffic generated at this site must be considered new additional vehicle trips.
2. Our review is limited to the impacts this project may have on the County's Regional Road Network.

Please call me at 654-2080 if you have any questions.

Response to Public Comments

Ventura County Public Works Agency Transportation Department –
memorandum from Nazair Lanlani, dated: August 19, 2005

The Final MND is hereby amended to include these comments. No response is required.

LAQUER, URBAN, CLIFFORD & HODGE LLP

LAWYERS

MARK C. ALLEN III
allen@luch.com

6700 E. PACIFIC COAST HIGHWAY, SUITE 287
LONG BEACH, CALIFORNIA 90803

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PASADENA, CALIFORNIA
BELLEVUE, WASHINGTON
LAS VEGAS, NEVADA

116.0002
FILE NO. _____

August 29, 2005

Via Email and U.S. Mail

Greg Smith, Senior Planner
Community Development Department
City of Thousand Oaks
2100 E. Thousand Oaks Blvd.
Thousand, Oaks, CA 91362-2903

Re: Mitigated Negative Declaration
Rancho Potrero Equestrian Center
Capital I Pro #CI-3407

Dear Mr. Smith:

Thank you for sending me a copy of the draft Mitigated Negative Declaration ("MND") for the Two Winds Ranch site. Let me make some preliminary comments with regard to the process:

1. Limiting the minimum public review period to just 20 days makes it very difficult for anyone to provide useful comments regarding the project. I have only had an opportunity to make a cursory review of the MND. Therefore, such comments must necessarily be subject to modification at a later date.
2. My clients are not opposed to the project. They would, however, like to see a certain finality in the decision making process—something that cannot happen if that process is significantly flawed.
3. Treating the "project" as mere capital improvements on the current facility is, in my opinion, highly questionable. The current Two Winds Ranch site has always been considered a temporary site. This status has been well documented by numerous actions, including studies and environmental reviews done by other agencies in which

the City has been involved. The "project" for CEQA purposes is not the capital improvements, but rather, establishing a permanent equestrian center at this particular location instead of alternative locations. Since an MND, by its very nature, precludes review of alternatives, the process is seriously flawed from the beginning. Certainly "fair argument" could be made that other sites have less environmental impact and are more preferable than the present site.

- I was unable to find enforceable permanent measures that would preclude further development at the site.

- I also was unable to find enforceable measures assuring adequate maintenance to this facility from a public health, environmental protection, or aesthetics standpoint. Unless the development of the project is coupled with realistic economic measures to assure the project's continued upkeep without further expansion or modification of the facilities, we may be just putting off to another day the final design of the facility.

I now turn to my specific comments:

Item 1a. Conflict with General Plan Designation or Zoning.

No sources are attached. Some sources are difficult to even identify. Therefore, one must accept as truth the general statement that the use does not conflict with current planning. However, it would be better if the conclusion were certified by the County, which is the jurisdiction having direct regulatory authority.

Item 1b. Conflict with Applicable Environmental Plans or Policies Adopted by Agencies with Jurisdiction Over the Project.

This seems to be potentially misleading. Prior studies identify the Olympia Farms site as preferable to this location. The other studies should be referenced and dealt with directly, rather than pretending that they do not exist.

Item 1. Land Use and Planning Mitigation Measures.

Mitigation should include measures that would "freeze" the project at the proposed configuration.

Item 2b. Growth Inducing Impact.

The MND inappropriately assumes the temporary existing equestrian center as a "baseline." Although no significant expansion is proposed here, placing the equestrian center

permanently on this site is a major step that has potential significance. The City has "segmented" the project into bite-sized pieces, each of which is not significant, but cumulatively may have a significant impact. An economically viable equestrian center may need to be different in configuration, use or size. The economic viability of the project is inexplicably intertwined with the ultimate design. This issue is not dealt with in this document.

Item 4c. Water.

We have not had an opportunity to review the Water Quality Management Study prepared by Questa Engineering. The MND does not provide a funding mechanism or permanent regulatory restrictions to assure that waste management will meet the design criteria. We note that the study uses a standard of Q₅₀ rather than Q₁₀₀ in its projections. Since this is a new project on open land that abuts a blue line stream and sensitive habitat, a more conservative Q₁₀₀ standard would seem to be more appropriate.

Although we have been able to review the water quality studies only briefly, there seems to be a dearth of information regarding the potential for pollution due to vehicle use on the property. We do not see that provision has been made for the numerous trucks and cars that will be using the facilities from the water quality standpoint. Is there a provision to assure that over the long time that this facility will be used, that petroleum distillates will not be allowed to contaminate ground water?

5. Air Quality.

We are concerned by the cryptic phrase "no expansion is being proposed at this time." Our understanding is that the facility could be used at a higher level or offer longer hours, for example, with the addition of lights, to allow the facility to be used at night. The finding of "no impact" should be accompanied by limitations on the use of the property to current levels.

6. Transportation/Circulation.

Same comment as 5 above.

7. Biological Resources.

The MND seems to use the current temporary facilities as the "baseline" for the biological analysis. If this is the case, the analysis should be redone to reflect the use of the property prior to the current temporary facility.

13
[8. **Energy and Mineral Resources.**

14
[No comment.

15
[9. **Hazardous Substances.**

Finding "a" regarding the risk of explosion or the release of hazardous substances, while possibly correct, is not supported by citation to any authority. Biowaste can be a source of hazardous chemicals and, in cases of severe mishandling, even catastrophic fire and explosion. Are restrictions needed on the use of chemicals in the area? Should the City consider restrictions on the use of chemicals, particularly insecticides? As far as we can see, no such restrictions are incorporated into the current plan.

16
[10. **Noise.**

Again, the baseline is the current "temporary facility." This is incorrect. The correct baseline would be the prior approved use of the property which, as we understand, was agricultural.

17
[11. **Public Services.**

Same comment as 10 above.

18
[12. **Utilities and Service Systems.**

To what extent will furnishing municipal services to the project influence the potential for further development on the south side of Potrero Road? What steps has the City taken to prohibit or limit such future development? Is County approval required in order to make such limitations enforceable?

19
[13. **Aesthetics.**

Same comment as 12 above.

20
[14. **Cultural Resources.**

No comment.

Greg Smith, Senior Planner
Community Development Department
August 29, 2005
Page 5

15. Recreation.

21

No comment.

22

The Operating Engineers reiterates that it is not interested in delaying a permanent equestrian center. We are concerned that the current process may not result in a permanent solution. The public would be ill-served by replacing the dilapidated current facility by a more expensive dilapidated facility a few years hence.

Very truly yours,

LAQUER, URBAN, CLIFFORD & HODGE LLP



MARK C. ALLEN III

MCA:lh

cc: Leo Majich
Louis Davey
Kathy Emmons
John Fonti
Amy Albano

34903

Response to Public Comments

LAQUER, URBAN, CLIFFORD & HODGE LLP - letter dated: August 29, 2005

Comment 1 - Comment noted. 20-days is the standard CEQA review period for an MND. The public hearing process also provides another opportunity to modify, or make additional comments pertaining to issues addressed in the Final MND. Given the nature of this project – making permanent the existing equestrian facility, with upgrades to infrastructure and landscaping, a 20-day review period is sufficient.

Comment 2 – The comment does not raise an environmental issue.

Comment 3 – The comment misconstrues CEQA requirements. CEQA does not require an alternative site analysis if the impacts associated with a project can be mitigated to a less than significant level. Here, the project will result in minimal changes to the existing environment, most of which are beneficial. In addition, any potential impacts can be mitigated to a less than significant level. Whether other potential sites may have “less” environmental impacts is irrelevant under CEQA if the proposed site can be fully mitigated. The comment also misreads the Project Description. The Project Description does not describe the project as “mere capital improvements”, but also states that the purpose of the project is to make permanent the use of the existing equestrian facility.

Comment 4 – The comment does not raise an environmental issue. Notwithstanding the above, as noted in the project description, no expansion of the equestrian center is being proposed and the project consists of merely upgrading and making permanent the existing equestrian use on the site. Precluding any further development on-site is neither reasonable, nor legal since it would prevent the City from upgrading this public facility in order to meet the changing environmental regulations and would illegally bind future legislative bodies. To the extent that any changes are proposed in the future, these changes would be subject to CEQA.

Comment 5 – This comment does not raise any environmental issues. Routine maintenance of the project is the responsibility of the operator and is an on-going activity. No further response is required.

Comment 6 – Although the subject property is located in an unincorporated area, as noted in the Draft MND, under Section 1 subsection (a) Land Use Planning, the proposed project is exempt from the County’s zoning ordinances and policies as specifically set forth in California Government Code Sections 53090 and 53091. That being the case, the equestrian center is consistent with the City’s General Plan Land Use designation of the subject property, which is “Existing Parks, Golf Courses and Open Spaces”.

Comment 7 – The comment misconstrues CEQA requirements. CEQA requires that a project be compared to plans or policies that were adopted by agencies with jurisdiction over the project such as a general plan, specific plan, or zoning code that were officially adopted for the purpose of avoiding or mitigating an environmental impact. The requirement does not include general studies, plans or policies with respect to the site or project other than the General Plan designation described in item 1a. In fact, a previous MND prepared for an equestrian facility at the Olympia Farms site was not approved by the City Council in 2003.

Comment 8 – CEQA does not require mitigation measures that preclude future project modifications, and in fact, such a mitigation measure would be unenforceable. Moreover, it is difficult to understand how “freezing” the proposed configuration of the project could be considered a mitigation measure, particularly since no expansion of this existing equestrian center is being proposed. Mitigation measures serve to reduce or avoid potentially significant adverse direct, indirect or cumulative environmental effects caused by the proposed project, not some future speculative change in the project. Here, the comment does not identify any specific impact that would result from the proposed project. Therefore, no mitigation is required.

Comment 9 – CEQA requires that the baseline analysis be based on the current existing conditions. The equestrian facility has been in existence and operation at the current location for more than ten years. To assume that the facility does not exist would violate CEQA given the length of time that the facility has been in operation. The comment asserts that the project has been “segmented”, but does not identify how it has been segmented or what cumulative impacts will result from this alleged segmentation. Moreover, the comment’s assertions relating to the economic viability of the facility is irrelevant under CEQA.

Comment 10 – CEQA does not require analysis of a “funding mechanism” to assure compliance with waste management regulations. The MND analysis indicates that as proposed, the project will meet waste management regulations, and no evidence to the contrary has been presented. With respect to the concern relating to the standards utilized in the study, due to the open nature of this equestrian center and the lack of any significant building coverage, the potential for increased stormwater runoff associated with the proposed project is negligible. As a result, there is no need to impose Q100 design stormwater design criteria as suggested.

With respect to the concern relating to contamination of ground water from petroleum, according to the boring logs prepared by Questa Engineering Corporation, which are included in Appendix C of the Rancho Potrero Water Quality Management Study, only a relatively shallow layer of perched groundwater exists below the subject property. The depth to this groundwater

averages approximately 5-10 feet. Since the soil capping this shallow groundwater tends to be fairly high in clay content and therefore relatively impermeable, it basically serves as a protective barrier against contamination by petroleum pollutants. Lastly, as noted on page 15 of the Draft MND, under "WATER", subsection (i), no groundwater down gradient of the project site is available for domestic use.

Comment 11 – The project proposes no expansion of the current uses on the site. The project will merely upgrade the infrastructure and make the use permanent. Therefore, the "No Impact" determination is based strictly on the fact that only necessary public improvements to this equestrian facility are being proposed. Correspondingly, no expansion of use is anticipated beyond the present limits of the project, nor are any plans to extend the current hours of operation being considered. No further response is necessary.

Comment 12 - Same response as above.

Comment 13 - As noted in the project description, this capital improvement project is intended to allow the permanent use of an existing equestrian center that has been in operation since 1995. As a result, it would be inappropriate to use baseline biological conditions, or any other environmental setting, that hasn't existed on-site for the past ten years for the purpose of this impact analysis since CEQA requires that the environmental setting be based on the physical environmental conditions at the time the analysis is conducted. It should also be noted that biological field surveys of Rancho Potrero, including the present equestrian center site, were conducted in 1994-95. During that time no rare and endangered plant or animal species were found within the equestrian center boundaries.

Comment 14 – No response is required.

Comment 15 – The City of Thousand Oaks does not regulate the use of hazardous materials or pesticides. Typically, other county, state and federal agencies claim jurisdiction over the storage and use of these chemical substances. The project does not include storage of hazardous chemicals. The risk of fire and explosion due to the improper storage of bio-waste (horse and cow manure) is considered to be low, based on City conditions relating to the handling and storage of this bio-waste, and based on the historic handling of biowaste at this site during the past ten years. The amount of biowaste will not increase since the current use will not be expanded.

Comment 16 – Refer to response to Comment 13 above.

Comment 17 – Refer to response to Comment 13 above.

Comment 18 – Refer to responses to Comments 4,6,8,11 and 13 above. No further response is necessary.

Comment 19 – Refer to response to Comment 18 above.

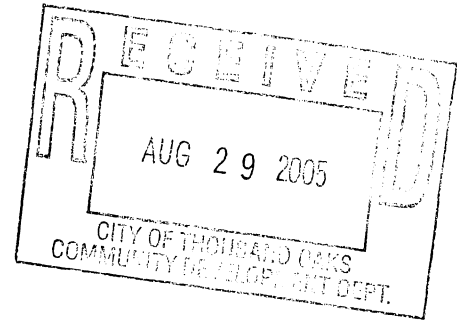
Comment 20 - No response is required.

Comment 21 – No response is required.

Comment 22 – Comment noted. No response is required.

August 29, 2005

Greg Smith, Senior Planner
Community Development Department
City of Thousand Oaks
2100 East Thousand Oaks Blvd
Thousand Oaks, CA 91362



Re: Rancho Potrero Equestrian Center, CIP Project No. CI-4307

Dear Mr. Smith,

Thank you for the opportunity to comment on the Draft Mitigated Negative Declaration (MND) for the Rancho Potrero Equestrian Center (RPEC). We represent the homeowners of Tract 4831-2 and Tract 4831-3 which is directly across Lynn Road from RPEC. Please know that the homeowners in Tract 4831 have fought along side equestrian enthusiasts, the environmental community and various other citizens who strongly desire to maintain the precious and scenic open space on the south side of Potrero Road while providing a public equestrian facility, at the current location, which would replace the one displaced when our development was built.

We fully support the project as outlined and believe that the MND properly addresses the environmental effects created. The MND has indeed captured the desire that the residents are comfortable with keeping the status-quo regarding size of operation.

Not expanding the equestrian center will also help preclude further development of Rancho Potrero. We are concerned about some statements made in the MND but strongly believe that the MND is acceptable as written.

We want the project to move forward as quickly as possible. The current equestrian facility is ten years old and has been operating as a "temporary" facility. We want it to become a permanent part of our community. We do not want any further delays. In that regard we ask that the City not extend any contract expiration provisions it has with third parties associated with this project.

We find the MND to be very informative. It contains an excellent analysis and treatment of water issues and is very well written. However, we feel compelled to point out some misstatements in the document that apparently arise because the authors were not properly informed. Item 5, Air Quality, Mitigation Measures, (d) on page 16 states that "Although there have been no complaints regarding objectionable odors..." and Item 13, Aesthetics, Potential Environmental Impacts, on page 20 states "There is no history of complaints regarding this lighting." The homeowner's association Board has received several complaints about odors and the lighting. Because the facility has been temporary in nature and the current management practices being less than desirable, the residents and the Board have believed there was little to gain from formally complaining to the operator or the City because little would change until the facility became permanent. We always believed, and continue to do so, that the City will deal with these issues when the permanent facility is designed, approved, built and operated.

There have been four public hearings over the past three years on the use of the property when the adjacent residents came out each time in the hundreds. We expressed then, and nothing has changed since, that concerns regarding lights, noise, odors and aesthetics can all be mitigated sufficiently. These concerns have never risen to the level of challenging the location of the equestrian center. Indeed, our concerns do not conflict with the MND. And the measures listed in the MND help to satisfy some of our concerns already, e.g., management practices and storage bins for the manure and adherence to the lights out rule by 8:00 PM.

We believe our concerns regarding aesthetics, noise, odors and lights can be addressed in detail in the subsequent "Conditions of Approval" for the project. Since the equestrian center operation outlined in the MND is the operation as it is currently run, with no additional intensive use, we would expect that the Conditions include sufficient restrictions ensuring no expansion along with addressing our concerns as well. In addition and as you know, noise can be controlled by limiting amplified sound both in terms of physical constraints and also on the frequency of use. Aesthetic goals can be accomplished quicker by installing more mature trees and shrubs. Arena and caretaker residence lights can be relocated to provide a better result. Odor control can be improved by requiring that manure is collected on a regular schedule which can be adjusted depending on weather and environmental conditions. The MND as written does not need to be modified to address these concerns.

We look forward to the completion of the project as quickly as possible. We are also available to provide additional input at your convenience.

Sincerely,

A handwritten signature in cursive script that reads "John Fonti, for the".

Board of Directors
Estancia Maintenance Association
c/o The Emmons Company
One Boardwalk
Thousand Oaks, CA 91360

Contact:

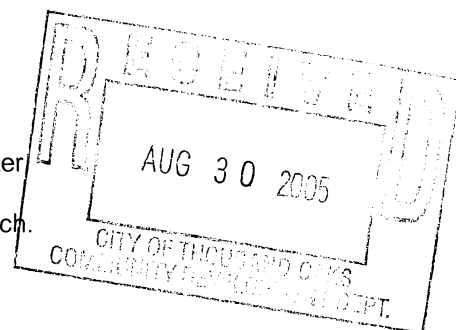
John Fonti, President, Estancia Maintenance Assoc. and Dos Vientos Ranch Community Assoc.
Lisle Reed, Vice President, Estancia Maintenance Association

Response to Public Comments

Letter from John Fonti, President of the Dos Vientos Ranch Community Assoc.
dated: August 19, 2005

The Final MND is hereby amended to include these comments. No environmental issues are raised that require a response.

From: <Sumitman@aol.com>
To: "Greg Smith" <gsmith@toaks.org>
Date: 8/29/2005 7:27:31 PM
Subject: Public Review comment re: Ranch Potrero Equestrian Center



I am writing to share with you some brief thoughts regarding Two Winds Ranch. I live 2.5 miles from TWR. I have been a homeowner in Newbury Park for over 13 years. I enjoy riding in the parks and living in this beautiful city. Unfortunately, I drive 14 miles almost daily to see my two horses and ride. If I want to ride here I have to trailer them over.

I recently drove through Two Winds to reconsider boarding there. I had been scared off by the negative reputation the management has. So I decided to see for myself.

The facility appears dirty and ramshackle. I was appalled to see horses living in a pasture with no shade whatsoever in our recent over 100 degree heat. I feel that if the facility is so neglected, I would not trust my horses to be taken care of.

I would love to board near my home. I would be glad to pay \$500 plus monthly to someone here who I would trust to treat my horses humanely and with the respect they deserve.

I urge you to expedite the creation of our community equestrian center for all the citizens who would also love to have their horses in our town. It's a shame that the beautiful land has been entrusted to irresponsible caretakers.

This has potential to be a wonderful facility for adults and children.

I look forward to one day enjoying that.

Thanks for your time.

Susan Shima

sumitman@aol.com

Response to Public Comments

Email from Sumitman@aol.com dated August 29, 2005

The Final MND is hereby amended to include these comments. No environmental issues are raised that require a response

FINAL MITIGATED NEGATIVE DECLARATION



Case: Capital Improvement Project No. CI-4307
Rancho Potrero Equestrian Center

Applicant: City of Thousand Oaks

Request: To allow the permanent use of an existing equestrian facility; relocation of primary access driveway to intersection with Via Andrea; installation of new entry signage on Lynn Road; disabled access upgrades; new landscaping and perimeter fencing; construction of new rental office, public restroom, hay, equipment sheds and upgraded horse washing facilities; connection to City's sewer system; grading as needed for stormwater management purposes, including reconstruction of existing bio-swale; removal of fencing and pipe corrals from adjacent wetland "buffer area"; reconstruction of internal gravel roads and relocation of caretakers residence.

Location: 5350 West Potrero Road, approximately 500 feet west of National Park entrance to Rancho Sierra Vista.

Initial Study Determination

As required under the provisions set forth in Section 15063 of the California Environmental Quality Act (CEQA) Guidelines, an Initial Study has been prepared by the City of Thousand Oaks. The Initial Study, which is attached, evaluates the potential effects of this proposed project on the environment. Although the Initial Study has determined that the proposed project could have a potentially significant impact on the environment, feasible mitigation measures have been identified that will either avoid, or reduce them to a level of insignificance. Based on these findings, a Mitigated Negative Declaration (MND) has been prepared for the proposed project in compliance with the provisions set forth in Section 15070 of the CEQA Guidelines as amended.

Contact Person / Public Review Period

The contact person for this MND is: Greg Smith, Senior Planner. The public review period is **20-Days**. Comments are solicited and must be submitted in writing to the Community Development Department, 2100 E. Thousand Oaks Blvd., Thousand Oaks, California 91362-2903, no later than: Monday, August 29, 2005

Final Mitigated Negative Declaration Issued

Date: 9/28/05

Signature: Greg Smith



Public Comments and Staff Response Included in Final MND



No Comments Received

CITY OF THOUSAND OAKS ENVIRONMENTAL CHECKLIST FORM

1. **Project Title:** Rancho Potrero Equestrian Center (RPEC) Capital Improvement Project No. CI-4307
2. **Lead Agency Name and Address:** City of Thousand Oaks, 2100 East Thousand Oaks Boulevard, Thousand Oaks, Ca, 91362-2903.
3. **Contact Person and Phone Number:** Greg Smith, Senior Planner, (805) 449-2329.
4. **Project Location:** 5350 West Potrero Road, approximately 500 feet west of the National Park entrance to Rancho Sierra Vista (See Appendix A).
5. **Project Sponsor's Name and Address:** City of Thousand Oaks, 2100 East Thousand Oaks Boulevard, Thousand Oaks, CA. 91362.
6. **General Plan Designation:** The City of Thousand Oaks' General Plan designation for the subject area is Existing Parks, Golf Courses, and Open Space. The Ventura County General Plan (Thousand Oaks Area Plan) designation is OS-3 (Open space, 40 Acre Minimum Parcel Size).
7. **Zoning:** The property is located within an unincorporated area of Ventura County, and is zoned A-E/SRP (Agricultural Exclusive-Scenic Resource Protection Overlay Zone).
8. **Description of the Project:** The purpose of this Mitigated Negative Declaration is to address the potential environmental effects associated with improvements to the Rancho Potrero Equestrian Center (PREC) in order to establish it as a permanent facility. Proposed improvements include:
 - Construction of new driveway entrance opposite Via Andrea, including new "Rancho Potrero Equestrian Center" entry signage on Lynn Road
 - Fencing upgrades and installation of new landscaping at main entrance along north and east sides of facility and at selected locations within the site
 - Construction of new rental office, public restroom, hay and equipment storage shed, including new horse washing facilities
 - Installation of disabled access upgrades, including connection of caretakers residence, public restroom and horse wash facilities to City's sewer system
 - Grading as needed for stormwater management purposes, including reconstruction of existing bio-swale,
 - Removal of fencing and pipe corrals from adjacent wetland "buffer area", including improvements to internal gravel roads and parking areas, as well as relocation of caretakers residence and cattle pen

In September 1995, the Rancho Potrero Equestrian Center, which is currently called the "Two Winds Ranch", was moved to its present location on the south side of Lynn Road on a temporary basis. It should be noted that for 23 years, the Two Winds Ranch operated on approximately 20 acres of private land on the north side of Lynn Road, 2 miles west of the terminus of West Potrero Road and approximately ¼ mile north of its present location. The area currently occupied by the Rancho Potrero Equestrian Center is 19.7 acres.

TWR is located on part of the 326-acre Rancho Potrero property, which was jointly acquired by the Conejo Recreation and Park District, City of Thousand Oaks, and Mountains Recreation and Conservation Authority in 1993. Rancho Potrero was acquired by these public agencies for the purposes of an equestrian center, active recreation and natural open space. The property is currently owned by the Mountains Recreation and Conservation Authority (MRCA), and is leased to the Conejo Open Space Conservation Agency (COSCA), which is a joint powers agency composed of the City of Thousand Oaks and the Conejo Recreation and Park District. However, the City Council has authorized acquisition of the property from MRCA and so has the COSCA Board of Directors.

TWR currently operates under a sublease for interim equestrian use between a private operator and COSCA. Principal activities at TWR include horse boarding, rental horses, lessons, and team penning events on weekends. There are approximately 60 boarded horses, 30 rental horses, and 60-100 cattle on-site, for a total of 150-190 head of livestock. Under the current lease agreement, the maximum number of livestock that may be kept at TWR is 250. A caretaker lives on-site in a mobile home to provide for maintenance and security of the facility. Mitigated Negative Declarations were previously prepared in 2000 and 2001 for one-year extensions of the sublease for the Two Winds Ranch. TWR is currently operating on a month-to-month lease basis.

9. **Surrounding Land Uses and Setting:** The site consists of gently sloping land on the south of Lynn Road. North of the site is a subdivision (Tract 4831) that is part of Dos Vientos Ranch. Adjacent land to the west and south consists of moderate to steeply sloping hillside terrain owned by the MRCA. Land abutting the subject property to the east consists of gentle slopes and is owned by the National Park Service. This area is part of the Santa Monica Mountains National Recreation Area (Rancho Sierra Vista/Satwiwa).
10. **Other public agencies whose approval is required:** None

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist on the following pages.

	Land Use and Planning		Biological Resources	X	Aesthetics
	Population and Housing		Energy and Mineral Resources		Cultural Resources
	Geological Problems		Hazards		Recreation
X	Water		Noise		Mandatory Findings of Significance
X	Air Quality		Public Services		
	Transportation and Circulation		Utilities and Service Systems		

DETERMINATION: (To be completed by the Lead Agency).

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.	X
I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (1) have been analyzed in an earlier EIR pursuant to applicable standards and (2) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project.	


Greg Smith, Senior Planner

July 26, 2005
City of Thousand Oaks

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
1. LAND USE AND PLANNING. Would the proposal:					
a) Conflict with general plan designation or zoning?	2, 26, 34, 35				X
b) Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?	27, 28, 31, 32				X
c) Be incompatible with existing land use in the vicinity?	1, 2, 4				X
d) Affect agricultural resources or operations (e.g. impact to soils or farmlands, or impacts from incompatible land uses)?	33				X
e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?	9				X
2. POPULATION AND HOUSING. Would the proposal:					
a) Cumulatively exceed official regional or local population projections?	2				X
b) Induce substantial growth in an area either directly or indirectly (e.g. through projects in an undeveloped area or major infrastructure?	2				X
c) Displace existing housing, especially affordable housing?	9				X
3. GEOLOGIC PROBLEMS. Would the proposal result in or expose people to potential impacts involving:					
a) Fault rupture?	5				X
b) Seismic ground shaking?	5				X
c) Seismic ground failure, including liquefaction?	5				X
d) Landslides or mudflows?	5, 12				X
e) Erosion, changes in topography or unstable soil conditions from excavation, grading or fill?	9				X
f) Subsidence of the land?	5				X
g) Expansive soils?	5				X
h) Significant grading encroachments into 25% terrain?	9				X
i) Creation of manufactured slopes exceeding 25 feet in height?	9				X
j) Unique geologic or physical features?	1				X

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
4. WATER. Would the proposal result in:					
a) Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	12			X	
b) Exposure of people or property to water related hazards such as flooding?	1, 5, 8, 36				X
c) Discharge into surface waters or other alteration of surface water quality (e.g. temperature, dissolved oxygen or turbidity)?	1, 12, 18		X		
d) Changes in the amount of surface water in any water body?	9				X
e) Changes in currents, or the course or direction of water movements?	9				X
f) Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or through substantial loss of groundwater recharge capability?	9				X
g) Altered direction or rate of flow of groundwater?	9				X
h) Impacts to groundwater quality?	12, 18		X		
i) Substantial reduction in the amount of groundwater otherwise available for public water supplies?	9				X
5. AIR QUALITY. Would the proposal:					
a) Violate any air quality standard or contribute to an existing or projected air quality violation?	10				X
b) Expose sensitive receptors to pollutants	10				X
c) Alter air movement, moisture, or temperature, or cause any change in climate?	9				X
d) Create objectionable odors?	1		X		
6. TRANSPORTATION/CIRCULATION. Would the proposal result in:					
a) Increased vehicle trips or traffic congestion?	11				X
b) Hazards to safety from design features (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	3, 11		X		
c) Inadequate emergency access or access to nearby uses?	14, 15				X
d) Insufficient parking capacity on-site or off-site?	3, 12				X
e) Hazards or barriers for pedestrians or bicyclists?	11, 12				X

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflicts with adopted policies supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	11				X
g) Rail, waterborne or air traffic impacts?	9				X

7. BIOLOGICAL RESOURCES. Would the proposal result in:

a) Endangered, threatened or rare species or their habitats (including but not limited to plants, fish, insects, animals or birds)?	1, 13, 16				X
b) Locally designated species (e.g. oak trees, landmark trees)?	1, 3, 12				X
c) Locally designated natural communities (e.g. oak forest, coastal habitat, etc.)?	1, 13, 16				X
d) Wetland habitat (e.g. marsh, riparian and vernal pool)?	1, 13, 16				X
e) Wildlife dispersal or migration corridors?	1, 28				X

8. ENERGY AND MINERAL RESOURCES. Would the proposal:

a) Conflict with adopted energy conservation plans?	9				X
b) Use non-renewable resources in a wasteful and inefficient manner?	9				X
c) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?	9				X

9. HAZARDS. Would the proposal involve:

a) A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation)?	9				X
b) Possible interference with an emergency response plan or emergency evacuation plan?	5, 14				X
c) The creation of any health hazard or potential health hazard?	9				X
d) Exposure of people to existing sources of potential health hazards?	9				X
e) Increased fire hazard in areas with flammable brush, grass or trees?	1, 15			X	

10. NOISE. Would the proposal result in:

a) Increase in existing noise levels?	17		X		
b) Exposure of people to severe noise levels?	3				X

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
11. PUBLIC SERVICES. Would the proposal have an effect upon, or result in a need for new or altered government services in any of the following areas:					
a) Fire protection?	15				X
b) Police protection?	14				X
c) Schools?	9				X
d) Maintenance of public facilities, including roads?	19				X
e) Other governmental services?	9				X
12. UTILITIES AND SERVICE SYSTEMS. Would the proposal result in a need for new systems or supplies, or substantial alterations to the following utilities:					
a) Power or natural gas?	20				X
b) Communications systems?	21				X
c) Local or regional water treatment or distribution facilities?	22				X
d) Sewer or septic tanks?	25			X	
e) Storm water drainage?	19		X		
f) Solid waste disposal?	7				X
g) Local or regional water supplies?	22				X
13. AESTHETICS. Would the proposal:					
a) Affect a scenic vista or scenic highway?	1, 29, 30, 31			X	
b) Have a demonstrable negative aesthetic effect?	1				X
c) Create light or glare?	1, 12				X
14. CULTURAL RESOURCES. Would the proposal:					
a) Disturb paleontological resources?	9				X
b) Disturb archaeological resources?	6, 23				X
c) Affect historical resources?	9				X
d) Have the potential to cause a physical change, which would affect unique ethnic cultural values?	9				X
e) Restrict existing religious or sacred uses within the potential impact area?	9				X
15. RECREATION. Would the proposal:					
a) Increase the demand for neighborhood or regional parks or other recreational facilities?	24				X
b) Affect existing recreational opportunities?	24				X

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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16. MANDATORY FINDINGS OF SIGNIFICANCE.

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?					X
b) Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?					X
c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects)					X
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?					X

17. EARLIER ANALYSES.

Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or Negative Declaration. Section 15063.8 (3) (D). In this case a discussion should identify the following items:

a) Earlier analysis used: MND's were prepared by COSCA for 1-year lease extensions of the Two Winds Ranch in 2000 and 2001.

b) Impacts adequately addressed. N/A

c) Mitigation measures. N/A

Authority Public Resources Code Sections 21083 and 21087.

Reference: Public Resources Code Sections 21080 (c), 21080.1, 21080.3, 21082.1, 21083, 21083.3, 21093, 21094, 21151; *Sundstrom v. County of Mendocino*, 202 Cal. App. 3d 296 (1988); *Leonoff v. Monterey Board of Supervisors*, 222 Cal. App. 3d 1337 (1990).

18. SOURCE REFERENCES

1. Site Visit
2. City of Thousand Oaks General Plan
3. City of Thousand Oaks Municipal Code
4. City of Thousand Oaks Zoning Maps
5. Safety Element - Thousand Oaks General Plan

Issues and Supporting Information Sources	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
6. City of Thousand Oaks Archaeological Resource Map					
7. Guidelines for Preparation of Environmental Assessments for Solid Waste Impacts					
8. Flood Insurance Rate Map					
9. Not applicable to project					
10. Guidelines for the Preparation of Air Quality Impact Analyses					
11. Public Works Department, Traffic Division Memorandum dated: July 12, 2005					
12. Two Winds Ranch As-Built Site Plan - Exhibit B					
13. City Data Base on Rare, Endangered or Sensitive Species					
14. Thousand Oaks Police Department					
15. Ventura County Fire Department					
16. Broome Ranch Land Use Constraints Analysis					
17. Noise Element - Thousand Oaks General Plan					
18. Draft Report - Two Winds Ranch Water Quality Management Study					
19. Public Works Department, Development Engineering Division					
20. The Gas Company; Southern California Edison					
21. GTE California Incorporated					
22. Public Works Department, Water/Wastewater Division					
23. Phase I Archaeological Survey of a Portion of the Broome Ranch					
24. Conejo Recreation and Park District					
25. County of Ventura Environmental Health					
26. County of Ventura Zoning Maps					
27. Open Space Element- Thousand Oaks General Plan					
28. Conservation Element- Thousand Oaks General Plan					
29. Scenic Highways Element- Thousand Oaks General Plan					
30. Santa Monica Mountains Comprehensive Plan					
31. Thousand Oaks Area Plan- County of Ventura					
32. County of Ventura General Plan					
33. California Department of Conservation Important Farmlands Map					
34. <i>Lawler et al v. City of Redding</i> (1992) 7 Cal.App.4th 778					
35. Longtin's California Land Use, 2 nd Edition					
36. Hydrology and Drainage Report, Broome Ranch					
See attached addendum information.					

19. EXPLANATIONS FOR CHECKLIST RESPONSES

Initial Study Addendum Information

1 - Land Use and Planning

Potential Environmental Impacts

- a. Although the Rancho Potrero Equestrian Center (RPEC) is located within the Thousand Oaks Planning Area, it is outside the City's incorporated area in the County of Ventura. The Land Use Element of the Thousand Oaks General Plan designates the area as Existing Parks, Golf Courses and Open Space. The project is consistent with this designation, as it will support public recreation. It should be noted that the RPEC is exempt from County zoning ordinances and policies under California Government Code Sections 53090 and 53091. The existing County zoning is A-E/SRP (Agricultural Exclusive-Scenic Resource Protection Overlay Zone). The proposed project, which does not involve the expansion of existing facilities, is considered to be compatible with the County's Scenic Resource Protection Overlay Zone since it is consistent with the visual character of a semi-rural landscape and has been in existence since September 1995. Also, the majority of the subject property will remain in a natural undeveloped condition.
- b. The proposal will not conflict with environmental policies or plans adopted by agencies with jurisdiction over the project.
- c. The proposal is considered to be compatible with existing and planned uses in the area due to the distance separating the main boarding area (pipe corrals) from the nearest residences to the north (minimum 240 feet) and National Park Service property to the east (minimum 1,330 feet), and because Rancho Potrero has historically been used for ranching and equestrian purposes. In addition, the 5.2-acre Dos Vientos Neighborhood Park is located directly opposite the equestrian facility, which provides additional separation between the RPEC and residential development on the north side of Lynn Road.
- d. The project does not displace any agricultural activities, and the area does not include prime farmland or farmlands of statewide importance.
- e. The proposed use will not disrupt or divide any established community.

Mitigation Measures

None required.

2 - Population and Housing

Potential Environmental Impacts

- a. The proposed project is not residential in nature. The only on-site housing provided is a caretaker's trailer.
- b. Improvements are sized to accommodate existing equestrian center activities and uses. No significant expansion is proposed.
- c. No residential community exists on-site.

Mitigation Measures

None required.

3 - Geologic Hazards

Potential Environmental Impacts

- a. No known "active" earthquake faults or geologic hazards are located near the site. The proposed development lies outside any Alquist-Priolo Special Study Zone. Therefore, the potential for damage due to fault rupture is considered to be remote.
- b. As is characteristic of the Thousand Oaks area in general, the property will be subject to strong ground shaking due to seismic events on regional "active" faults.
- c. Seismic ground failure, including liquefaction, is not expected to pose a significant risk due to the limited extent of permanent structures on-site, and presence of only one caretaker's trailer, which has earthquake bracing consistent with County of Ventura standards.
- d. The subject site is basically level, with a gentle slope varying between 1-2%. No landslide or mudflow debris is present.
- e. Only minimal grading is proposed in order to improve overall site drainage and enhance existing bio-filtration facilities. It should also be noted that no significant changes to natural landforms were made when the Two Winds Ranch was relocated to its present location.
- f. Subsidence is not considered to be a geotechnical hazard that potentially affects the proposed project.
- g. Based on the Safety Element of the Thousand Oaks General Plan, expansive clay-bearing soils may occur on-site. The footings and slabs of

all permanent structures will be designed and constructed in accordance with standard practices in order to avoid cracking due to soil expansion.

- h,i. No encroachment into 25% terrain, or construction of manufactured slopes over 25 feet in height is proposed.
- j. There are no unique geologic or physical features associated with the subject site.

Mitigation Measures

- b. All permanent structures will be designed and constructed to meet current Uniform Building Code seismic standards.

4 - Water

Potential Environmental Impacts

- a. As previously noted, only minimal grading of the project site is proposed. No natural drainages are affected by this work. Similarly, absorption rates and the amount of surface water runoff are not expected to significantly change since pervious surface areas will essentially remain the same.
- b. The project site is located outside the designated 100-year flood boundary for the South Branch of the Arroyo Conejo, according to the Flood Insurance Rate Map and a hydrology study of the property.
- c. A water quality management study has been prepared by the Questa Engineering for the Rancho Potrero Equestrian Center (RPEC). Refer to Appendix B. This study was commissioned by the City of Thousand Oaks in order to clarify applicable local, state and federal regulatory requirements for operation of RPEC on a permanent basis, and to identify any additional improvements or best management practices that may be appropriate. Correspondingly, the Los Angeles Regional Water Quality Control Board (LARWQCB) advised the City to eliminate any potential discharges of sanitary wastewater and wash-water discharges, and to comply with local stormwater management practices. It is also understood that LARWQCB will be waiving jurisdiction over stormwater at this facility in accordance with provisions set forth in the California Water Code, based on a staff determination that the proposed project does not constitute a waste water discharge subject to regulation by the Board. There are also no longer any outstanding issues, involving the California Department of Fish and Game or U.S. Army Corps of Engineers, with regard to the status of nearby wetlands as noted in "Recommendation 1" of the Executive Summary. However, for management purposes, Recommendations 2 thru 6 would still apply in the event a maximum of

250 head of livestock were present on-site, although waste generation would be expected to increase.

Existing management practices, which are currently in effect and are intended to minimize potential impacts to surface water quality include: (a) minimum 50' setback from South Branch of Arroyo Conejo Creek, which is a blue-line stream channel, (b) pastures setback an additional 10-130 feet from the southern property boundary, creating a grass buffer strip between boarding areas and native riparian and wetland habitats located south of the site, (c) pipe corrals and the cow pen are located on the north side of project area creating a separation averaging between 240-440 feet from the center of the blue-line stream channel, (d) an existing earthen swale and two bio-filtration ponds are located on the south side of the project site to intercept and detain low-volume surface water flows, allowing percolation and evaporation prior to discharging into the creek, (e) the caretaker's quarters are setback 270' feet from the center of the blue-line stream channel, (f) a minimum 10' wide grass filter strip is provided around entire perimeter of the TWR equestrian center, and (g) 1-2% site gradient serves to minimize the potential for active erosion and sediment transport into adjacent receiving waters.

In addition, existing manure management measures include: (a) storage above ground in metal bins to avoid contact with surface water and/or wind transport, (c) storage bins are not located in areas subject to ponding or sheet flows, (d) manure is removed from the site weekly and used for off-site agricultural applications (does not go to landfill), (e) pipe corrals are cleaned daily and pastures and livestock pen are cleaned at least weekly, and (f) annual weed abatement done mechanically.

- d. The project is not expected to change the amount of surface water in any body of water.
- e. The project will not result in changes to currents, the course or direction of water movements.
- f-g. The proposal is not expected to affect the direction, rate of flow, or quantity of ground water.
- h. Existing management measures are considered to be adequate to reduce the impacts of the project on groundwater quality to a less than significant level. These include: (a) no manure dumped into water course or spread outside lease area, (b) manure stored above ground in metal bins to avoid contact with surface water and wind erosion, (c) manure bins not located in a dry drainage course, within a flood plain, or area subject to water flow (d) manure bins located 160 to 330 feet from the center of nearest blue-line stream and not within 100 feet of any underground water source used for human consumption, (e) manure is removed from the site weekly and

used for off-site agricultural applications (does not go to landfill), and (f) pipe corrals are cleaned daily and pastures and livestock pen are cleaned at least weekly.

- i. No groundwater down gradient of the project site is available for domestic use.

Mitigation Measures

- c. Sanitary wastewater discharges from the caretaker's residence, public restroom and horse washing facilities will be conveyed by a proposed connection with the City's sewer system. In addition, manure storage areas will be covered and located on impermeable surfaces.
- h. Two existing bio-filtration basins located on-site are also proposed to be removed and upgraded with a wider bio-swale designed to capture and detain surface water allowing percolation and breakdown of organic pollutants. A 50-ft. wide natural vegetated buffer will also be maintained between RPEC and the restored wetlands located along the southerly boundary of the site.

In addition, RPEC will be subject to conditions and requirements as set forth by the Ventura Countywide Stormwater Quality Management Program, National Pollutant Discharge Elimination System (NPDES) Permit No. CAS063339.

5 - Air Quality

Potential Environmental Impacts

- a. As previously noted in the project description, the Rancho Potrero Equestrian Center (RPEC) has been in existence since 1972, and was relocated to the present site in 1995. Since that time, there has been no net increase in existing use. No expansion is being proposed at this time. Continued operation of this equestrian center does not exceed any adopted county, state or federal air quality emission thresholds.
- b. Not applicable. Refer to (a) above.
- c. Operation of the RPEC will not alter air movement, moisture, or temperature or cause any change in climate.
- d. It is recognized that an equestrian center has the potential to be a significant source of objectionable odors given the relatively close proximity of adjacent residential development.

Mitigation Measures

- b. Parking areas and principal roads are to be resurfaced with clean compacted gravel. Posted vehicle speeds on-site is maximum 10 mph. Sand is used as base material in arenas. Landscape treatment of interior areas and along the frontage of West Potrero Road is also proposed as means of controlling dust on-site.
- d. Although there have been no complaints regarding objectionable odors, animal waste is to be stored in new metal containers with lids that are emptied on a weekly basis.

6 - Transportation/Circulation

Potential Environmental Impacts

- a. The proposed project involves improvements to an existing equestrian center that has been in operation in the immediate area adjacent to Lynn Road since 1972. As previously noted, no expansion of the RPEC is proposed. Therefore, no significant increase in vehicle trips is anticipated.
- b. Due to a combination of limited sight-distance and the lack of a left-turn pocket on Lynn Road, the easterly driveway into the RPEC does not function as a full-access entrance. This entrance is also deficient in the minimum spacing (1,320 ft.), required for driveways accessing secondary limited access roads. Correspondingly, visitors must make a U-turn at the intersection of Lynn Road and Via Andrea and then backtrack approximately 400 ft. in order to use this driveway. This existing condition is considered undesirable and potentially hazardous. Refer to Traffic Division Memorandum dated: July 12, 2005 – Appendix C.
- c. Adequate emergency access to the project site is provided by Lynn Road, which is a primary arterial highway.
- d. Adequate on-site parking is available for existing uses. No off-site parking is permitted.
- e. The project will not create hazards or barriers for pedestrians or bicyclists.
- f. The project does not conflict with adopted policies supporting alternative transportation.
- g. Not applicable.

Mitigation Measures

- b. Proposed realignment of the main driveway entrance into the RPEC opposite Via Andrea and reconstruction of the Lynn Road median island to provide a left-hand turn pocket will serve to reduce potential traffic conflicts for motor vehicles, bicyclists or pedestrians.

7 - Biological Resources

Potential Environmental Impacts

- a. The project site consists of previously disturbed land, which has been operated as an equestrian facility for the past 10 years. Field surveys of the entire Rancho Potrero property were conducted in 1994 and 1995. No unique, rare or endangered plant or animal species exist on-site.
- b. No oak or landmark trees exist on-site.
- c. No natural plant communities exist on-site.
- d. Although wetland and riparian habitats exist within the nearby Arroyo Conejo Creek drainage, this area is permanently preserved within a U.S. Army Corps of Engineers Conservation Easement. As a result, no impacts to these resources are anticipated.
- e. The entire project site is fenced. Opportunities for unrestricted wildlife movement and/or dispersal exist throughout other portions of the Rancho Potrero property.

Mitigation Measures

None required.

8 - Energy and Mineral Resources

Potential Environmental Impacts

- a,b. The proposal is not expected to use substantial amounts of fuel or energy or result in an increase in demand on existing sources of energy.
- c. Not applicable.

Mitigation Measures

None required.

9 – Hazardous Substances

Potential Environmental Impacts

- a. The risk of explosion or the release of hazardous substances is remote.
- b. No interference with an emergency response or emergency evacuation plan will result from project implementation.
- c.d. The proposed project will not create any potential health hazards.
- e. Annual weed abatement and location of pastures between the principal boarding areas and natural open space to the south will act as a buffer in the event of a wildfire.

Mitigation Measures

None required.

10 - Noise

Potential Environmental Impacts

- a. Increased noise levels associated with proposed grading and construction activities will be relatively short-term in duration, lasting 3-6 months. Once this work is completed, ambient noise levels will remain unchanged.
- b. The proposal is not expected to expose people to severe noise levels in the area, since the current use of the site will remain the same.

Mitigation Measures

- a. In order to minimize any potential noise impacts, Section 8-11.01 of the Thousand Oaks Municipal Code limits construction activities to the hours between 7 a.m. and 7 p.m., Monday through Saturday. The City's Noise Ordinance is also enforced.

11 - Public Services

Potential Environmental Impacts

- a. The proposal will not result in the need for new or expanded fire protection service beyond what is already received in the area.
- b. The proposal will not result in the need for new or expanded police service beyond what is already received in the area.

- c. Not applicable.
- d. The project will not have a significant effect on public facilities, including roads.
- e. The project will not impact any other governmental services.

Mitigation Measures

None required.

12 - Utilities and Service Systems

Potential Environmental Impacts

- a-b. The proposed use of this site as a permanent equestrian center requires only a relatively short water and sewer line extensions to the caretaker's trailer, public restroom and wash rack areas. No other infrastructure improvements are planned that could potentially result in the need for a significant expansion of any existing or new utility systems.
- d. Wastewater will be conveyed to the City's sewer system.
- e. As previously noted, stormwater flows are currently conveyed by a system of existing swales that empty into two bio-filtration basins. Although improvements to these facilities are proposed, no expansion is planned.
- f. As noted in the project description, upgraded manure storage containers will be installed on-site in order to facilitate weekly solid waste disposal.
- g. Adequate domestic water supplies are available to serve the project.

Mitigation Measures

None required.

13 - Aesthetics

Potential Environmental Impacts

- a. Lynn Road is designated as a Scenic Highway by the City of Thousand Oaks and is a Scenic Parkway and Scenic Corridor in the Santa Monica Mountains Comprehensive Plan. Rancho Potrero, of which the Rancho Potrero Equestrian Center (RPEC) is a part, is also located within the County of Ventura's Scenic Resource Protection Overlay Zone. Since this

equestrian facility fronts the south side of Lynn Road, any new structures or related improvements are likely to be visible.

- b. The RPEC is characteristic of rural ranch development. All proposed improvements are intended to be aesthetically compatible.
- c. Only one arena on-site is currently illuminated by three 20-ft. light standards located approximately 240 feet south of West Potrero Road. There are no plans to upgrade, or modify these facilities as a part of the proposed project. There is also no history of complaints regarding this lighting. These facilities are used primarily during winter months when natural daylight is limited. In order to avoid potential impacts, directional hoods have been previously installed to avoid spillover and minimize glare. Arena lighting is also required to be shut off promptly at 8:00 p.m.

Mitigation Measures

- a. As a part of this Capital Improvement Project, new decorative rail-fencing will be installed along the Lynn Road frontage. Landscaping, including trees and shrubs will also be planted in order to help screen, and soften the appearance of arena areas, horse corrals and other associated structures, which are clearly visible from this scenic highway corridor. All of these proposed improvements will be designed and constructed to be in keeping with the rustic, ranch-style nature of this equestrian facility

b,c. None required.

14 - Cultural Resources

Potential Environmental Impacts

- a. No paleontological resources have been observed, or are expected to occur, on-site.
- b. A previous Phase I field survey and record search conducted by W & S Consultants has determined that no archaeological resources exist within the project site.
- c-e. The project will not affect any historical resources or unique cultural values. The project site is also not used for any religious or sacred purposes.

Mitigation Measures

None required.

15 - Recreation

Potential Environmental Impacts

- a. The proposal will not increase the demand for neighborhood/regional parks and other recreational facilities.
- b. The proposal will enhance existing recreational opportunities in the area by allowing the existing facility to continue in operation on a permanent basis.

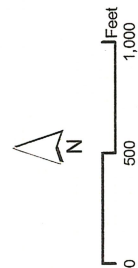
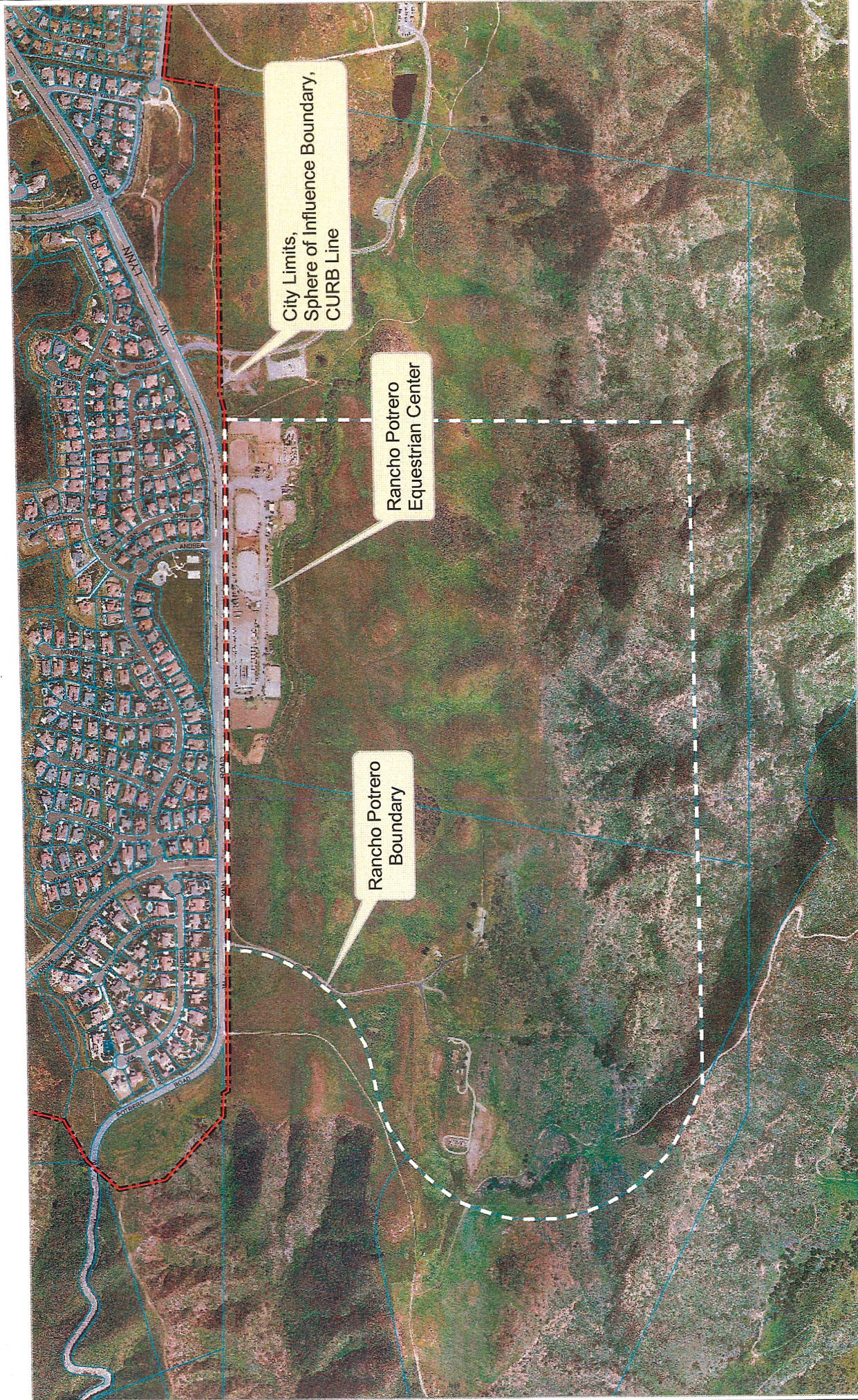
Mitigation Measures

None Required.

Department of Fish and Game "De Minimis Finding"

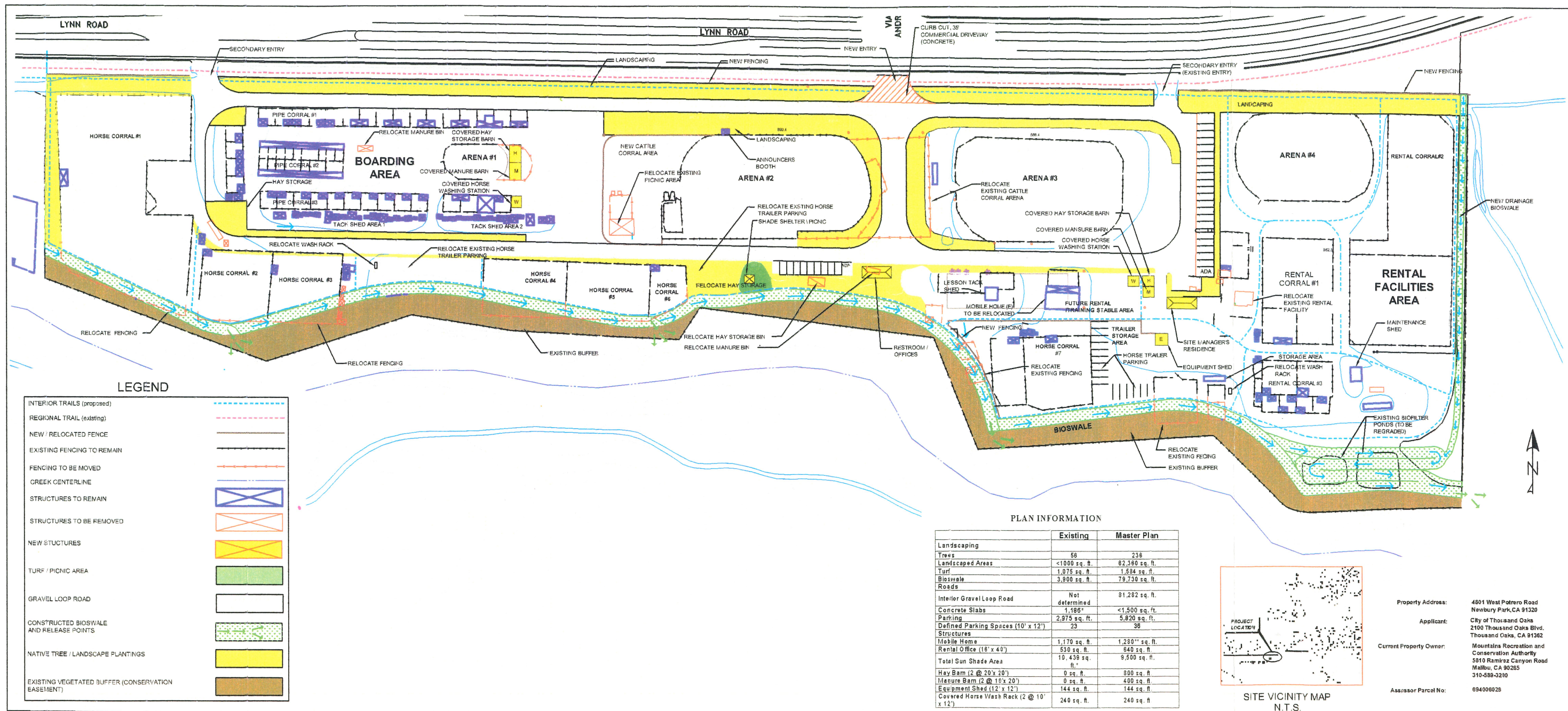
On July 3, 2000, an Initial Study was prepared by the Lead Agency under the provisions set forth in the CEQA Guidelines Section 15063. On the basis of this evaluation, it is hereby declared that there is no evidence before the agency that the proposed project will have the potential for an adverse effect on wildlife resources, as defined in Section 711.2 of the Fish and Game Code and a "De Minimis Finding" can be made. The applicant is required to submit to the City a \$50.00 filing fee payable to the Ventura County Clerk upon approval of the project.

Appendix A



Rancho Potrero Equestrian Center

City of Thousand Oaks
Community Development Department



RANCHO POTRERO EQUESTRIAN CENTER

CITY OF THOUSAND OAKS
NEWBURY PARK, CALIFORNIA



Rev.	Date	By	Description	Appr.

Design: N.E.
Drawn: C.H.
Checked: N.H.
Appr: N.H.

SITE PLAN RANCHO POTRERO EQUESTRIAN CENTER, NEWBURY PARK, CALIFORNIA

Size	Draw No.	Rev.
1" = 50'	240062.01	A1
Date:	7/8/2005	
Sheet:	1 OF 3	

Property Address: 4801 West Potrero Road
Newbury Park, CA 91320
Applicant: City of Thousand Oaks
2106 Thousand Oaks Blvd.
Thousand Oaks, CA 91326
Current Property Owner: Mountain Recreation and
Conservation Authority
5810 Ramirez Canyon Road
Malibu, CA 90265
310-588-3210
Assessor Parcel No: 694006028



INTERIOR TRAILS
REGIONAL TRAIL
NEW / RELOCATED FENCE
EXISTING FENCING TO REMAIN
FENCING TO BE MOVED
CREEK CENTERLINE

Groundcover/Accent Planting	Spacing
<i>Achillea millefolium</i> Yarrow	4-6 ft.
<i>Arctostaphylos Uva-ursi</i> Gaylussac Marzanilla	4-6 ft.
<i>Arctostaphylos Yoidon</i> Marzanilla	4-6 ft.
<i>Antennaria dioica</i> Sage	4-6 ft.
<i>Antennaria dioica</i> Sage	4-6 ft.
<i>Dasylirion elaeagnifolium</i> Cholla	2-5 ft.
<i>Dasylirion elaeagnifolium</i> Coyote brush	2-5 ft.

<i>Hebeclera 'Santa Ana' hybrid</i>	Coral bells	3-6 ft.
<i>Hebeclera 'Canyon Delight' California fuchsia</i>		3-6 ft.
<i>Cardinalis arvensis purpurea</i>	Troca mallow	
<i>Mimulus aurantiacus var. rubrus</i>	Monkeyflower	3-6 ft.
<i>Mimulus guttatus</i>	Monkeyflower	3-6 ft.
<i>Penstemon patens</i>	Penstemon	3-6 ft.

FLEXIBLE, NON-ABRASIVE TREE TIE
SECURED TO STAKE WITH A NAIL.
PLACE THE TIES 6" ABOVE THE
LOWEST POINT ON TRUNK
WHERE IT CAN BE HELD SUCH THAT
THE TOP OF THE TREE SPRINGS BACK
TO THE UPRIGHT POSITION WHEN
BENT OR DEFLECTED

REMOVE NURSERY STAKES
AND INSTALL 2" DIA.
TREATED LODGEPOLE STAKES.
SET OUTSIDE ROOTBALL AND
DRIVEN
A MIN. OF 12" INTO
UNDISTURBED SOIL.
BELOW PLANTING HOLE. TRIM
STAKE
6" ABOVE HIGHEST TREE TIE.

SET CROWN OF ROOTBALL 1-1/2"
ABOVE FINISHED GRADE

- TOP DRESS WITH BARK MULCH

EARTH BERM 4" MIN. HEIGHT

BACKFILL WITH MIXTURE OF
2/3 NATIVE SOIL
AND 1/3 ORGANIC COMPOST.
AREA WITH POOR OR HEAVILY
COMPACTED
SOIL MAY REQUIRE
ADDITIONAL AMENDMENT

1 TREE PLANTING
NOT TO SCALE

2 CONTAINER STOCK SHRUB PLANTING
NOT TO SCALE

4'X4' BIODEGRADABLE
MOISTURE
BARRIER/WEED
CONTROL FABRIC —

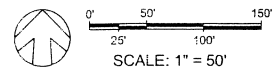
— WATERING BASIN; C
OF PLANT 1/2" ABOVE
FINISHED GRADE

WATERING BASIN; CROWN
OF PLANT 1/2" ABOVE
FINISHED GRADE

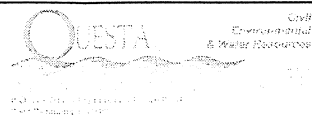


Diagram of a plastic collar, showing a line labeled "PLASTIC COLLAR" pointing to the collar structure.

NOTE:
PLANTING HOLES TO BE DUG 1-1/2
TIMES LARGER THAN ROOTBALL.
PROVIDE 4" DOWNSLOPE BERM TO
RETAIN WATER ON SLOPES.



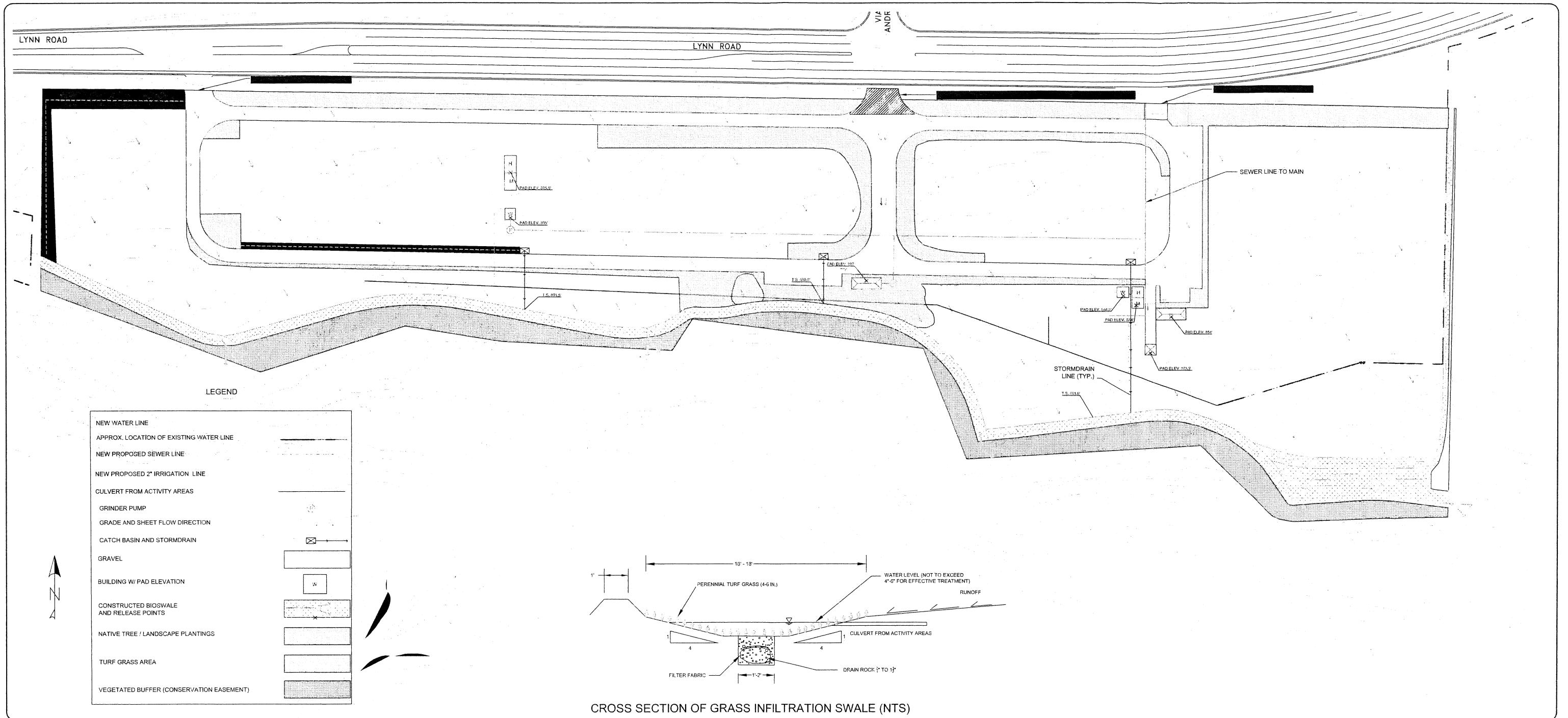
CITY OF THOUSAND OAKS
NEWBURY PARK, CALIFORNIA

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Drawn:	C.H.
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App'd:	N.H.

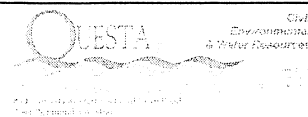
RANCHO POTRERO EQUESTRIAN CENTER,
NEWBURY PARK, CALIFORNIA

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7/19/2005		
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3 OF 3		



RANCHO POTRERO EQUESTRIAN CENTER

CITY OF THOUSAND OAKS
NEWBURY PARK, CALIFORNIA



Shr	Rev	Date	By	Description	Appr

Design: C.H.
Drawn: C.H.
Checked: N.H.
Appr: N.H.

DRAINAGE AND INFRASTRUCTURE PLAN

RANCHO POTRERO EQUESTRIAN CENTER,
NEWBURY PARK, CALIFORNIA

Size	Drawg. No.	Rev.
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Scale:	1" = 50'	
Date:	7/6/2005	
Sheet:	3 OF 3	

Appendix B

***Rancho Potrero
Water Quality Management Study***

***Rancho Potrero
4801 Potrero Road
Newbury Park, California***

Prepared for:

***City of Thousand Oaks
Finance Department
Facilities Division
2100 East Thousand Oaks Boulevard
Thousand Oaks, CA 91362***

Prepared By:

***Questa Engineering Corporation
1220 Brickyard Cove Road, Suite 206
Pt. Richmond, California 94801
Tel: (510) 236-6114
Fax: (510) 236-2423
www.questaec.com***

Project number 240062

July 16, 2005

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EXECUTIVE SUMMARY

DESCRIPTION OF FACILITY

Rancho Potrero (originally developed and operated under the name Two Winds Ranch) is an equestrian facility located immediately outside of the City of Thousand Oaks in Ventura County near Newbury Park (**Figure 1**). The property is owned by the Mountains Recreation Conservation Agency (MRCA) and leased by the City of Thousand Oaks. The Rancho Potrero facility began operation at the present location in 1995 on a temporary basis. Prior to 1995, the land was used for dryland farming and ranching. The City of Thousand Oaks is in the process of evaluating the water quality considerations along with other site improvements for the establishment of a permanent equestrian facility at this location.

Horse boarding pens, corrals, two arenas, horse rental areas, a caretaker's home and parking areas are located on the site. The facility is currently leased to an individual who operates the boarding, rental and team penning activities.

The facility is located on the south side of Lynn Road immediately west of the Santa Monica Mountains National Recreation Area opposite Via Goleta. The Dos Vientos residential development is located north of the facility and across Lynn Road. The MRCA land extends to the east, west and south of the facility.

APPLICABLE WATER QUALITY REGULATORY PROGRAMS

The primary responsibility for regulation of water quality in the project area lies with the Los Angeles Regional Water Quality Control Board (LARWQCB or Regional Board). The project team has met and conferred with Regional Board staff to clarify the applicable water quality regulatory requirements for the Rancho Potrero facility. The staff have advised the City of Thousand Oaks to eliminate any discharges of wastes (such as sanitary and wash water discharges) and to comply with local requirements for stormwater management. It is understood from this that the LARWQCB will be waiving the need for jurisdiction over stormwater at this facility in accordance with provisions under the California Water Code, based on staff determination that the project does not constitute a waste discharge subject to regulation by the Regional Board.

With respect to other water quality programs, the federal water quality requirements (National Pollution Discharge Elimination System, or NPDES) have been delegated to the LARWQCB. Cities and counties, in turn, carry out the NPDES stormwater management duties under programs approved by the Regional Board. Groundwater and surface water quality objectives (i.e., standards) are defined by the Regional Board's Basin Plan, and provide the basis for establishment of permit conditions and other water quality management decisions. Total Maximum Daily Loads (TMDL) for Calleguas Creek Watershed area being developed for surface water quality requirements. Groundwater quality protection and management is also under the jurisdiction of the County of Ventura Water Resources Department.

LIVESTOCK HOUSED ON SITE

Currently, both horses and cattle are housed on site. Approximately 90 horses are either boarded, or rented, or brought to the site on a short-term basis for team penning activities. Approximately 60 horses are boarded on the site. Additionally, about 30 horses are in the rental facility and typically 10 horses are brought for weekend team penning competitions. The number of cattle onsite ranges from 60 to 100 at any given time. The cattle used for the team penning training and competitions typically weigh between 325 to 550 pounds

The City of Thousand Oaks has indicated that 250 animals is the desired maximum limit for this equestrian facility, under the current interim lease.

ANIMAL WASTE PRODUCTION AND MANAGEMENT PRACTICES

With the current peak number of animals (100 horses and 100 cattle), it is estimated that approximately 7,640 pounds of manure are produced on a daily basis. Over the course of a year, this results in an estimated total annual production of about 1,400 tons of manure.

Three types of animal-related waste are produced: (1) horse manure; (2) cattle manure; and (3) horse wash water. Currently, approximately two-thirds of total manure production is from horses and one-third is from cattle. The horse wash water is estimated amount to range from about 1,500 to 3,700 gallons per week, or about 215 to 530 gallons per day.

The animal waste is currently collected by hand or front-end loader, stored on site in open-top roll-off dumpsters, which are removed from the site on a regular basis, typically every two to four weeks.

STORMWATER AND SANITARY WASTES

Stormwater runoff and domestic wastewater are also generated by use of the facility. The domestic wastewater from the caretaker's residence is currently collected in a holding tank, and is periodically pumped and hauled. In the western half of the facility, stormwater is dispersed via overland flow to the adjacent restored wetland area south of the ranch. In the eastern half of the facility, stormwater is collected in two small detention basins, which overflow to adjacent wetlands in the southeast corner of the ranch.

WATERSHED INFORMATION INCLUDING ENVIRONMENTAL CONCERNS

Rancho Potrero is located in the Calleguas Creek Watershed. The southern boundary of the site is within 100 to 200 feet from the south fork of Arroyo Conejo, a blue line stream, which is the nearest watercourse. The channel and adjacent wetlands of this stream have been restored and are subject to a U.S. Army Corp of Engineers' conservation easement. A 50-foot wide buffer along the restored wetland has been delineated and should be maintained.

Downstream reaches of Calleguas Creek have been designated by the State Water Resources Control Board and the LARWQCB as impaired for nitrogen, salts, total dissolved solids and bacteria. Therefore, these are the water quality parameters of particular concern for equestrian facilities in this watershed.

Rancho Potrero is not located over any aquifers mapped by the Ventura County Division of Water Resources. This area is not part of the Fox Canyon Groundwater Management District. Nevertheless, there are a few scattered existing and historical water wells in the project vicinity. Water quality constituents of concern for groundwater quality include bacteria, salts, and nitrogen. Six monitoring wells were installed as part of this study. Nitrogen has been detected above the 10 mg/L nitrate-N water quality standard in upgradient and downgradient monitoring wells. Total dissolved solids are within the Basin Plan objective for groundwater in both upgradient and downgradient monitoring wells. Total coliform were detected in upgradient and down gradient monitoring wells. *E.coli* were at or below detection limits in all wells. Low concentrations of fecal coliform were measured in two downgradient monitoring wells.

These water quality issues will be addressed by the facility improvements and management practices recommended by this study.

RECOMMENDATIONS

1. The City of Thousand Oaks and Mountains Restoration Conservation Agency should work with the Army Corp of Engineers and California Department of Fish and Game to resolve outstanding issues regarding the restored wetland status.
2. The caretaker's residence and horse washing areas should be connected to the municipal sewer collection system.
3. The existing practice of collecting and hauling manure from the site should be continued. Additionally, the manure storage areas should be covered and located on a raised, paved surface to minimize the potential for leaching of nutrients or bacteria into the soils. Various other "housekeeping" type practices should be implemented to minimize the amount of manure exposed to rainfall runoff and/or leaching to the soils and groundwater.
4. A 50-foot natural vegetated wetland buffer area should be maintained between project facilities and the restored wetland area along the southern boundary of the site.
5. All stormwater runoff should be directed for treatment and dispersal through a series of vegetated bioswales located along the southern boundary of the site. The bioswales should be designed in accordance with Ventura County criteria. Additionally, gravel underdrains should be incorporated into the bioswale design to enhance infiltration of runoff, and an irrigation system should be provided to help develop grassy vegetation prior to the beginning of each rainy season.
6. The existing sedimentation basins located in the southeast corner of the site should be removed in favor of the recommended bioswale treatment system to: (a) provide an equal or better level of stormwater treatment; (b) minimize hydrologic changes along the wetland boundary; and (c) eliminate potential nuisances and mosquito concerns associated with standing water.

1.0 INTRODUCTION

The Rancho Potrero equestrian facility (under the name Two Winds Ranch) began operation at the present location in 1995 on a temporary basis. Prior to 1995, the land was used for dryland farming and ranching. The City of Thousand Oaks is in the process of evaluating the water quality considerations along with other site improvements for the establishment of a permanent equestrian facility at this location.

1.1 LOCATION OF FACILITY

Rancho Potrero is located immediately outside of the City of Thousand Oaks in Ventura County near Newbury Park (**Figure 1**). The property is owned by the Mountains Recreation Conservation Agency (MRCA) and leased by the City of Thousand Oaks.

The facility is located on the south side of Lynn Road, immediately west of the Santa Monica Mountains National Recreation Area opposite Via Goleta. The Dos Vientos residential development is located north of the facility and across Potrero Road. The MRCA land extends to the east, west, and south of the facility.

1.2 DESCRIPTION OF FACILITY

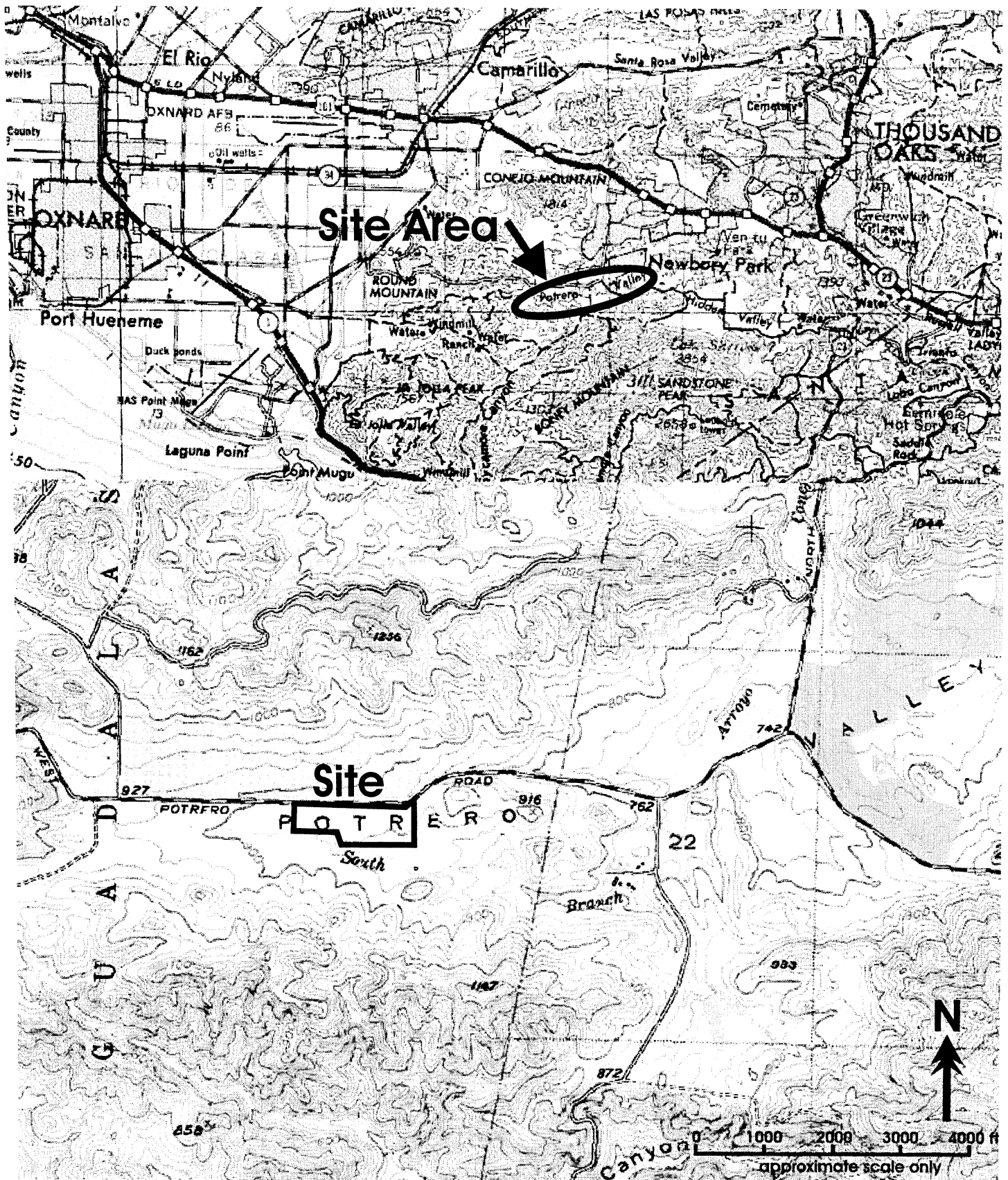
Horse boarding pens, corrals, two arenas, horse rental areas, a caretaker's residence and parking areas are located on the site (**Figure 2**). The facility is currently leased to an individual who operates the boarding, rental and team penning activities.

The existing infrastructure of Rancho Potrero is utilitarian. The ranch has three major use areas. From west to east, these are: (1) the horse rental area; (2) the events area; and (3) the horse boarding area. The facility is accessed from the eastbound lane of Lynn Road between the events area and the rental area. There is a paved roadway that forms an oval around the events and boarding areas.

The rental area includes the rental office, temporary portable chemical toilets, an arena, three pastures, corrals for the rental horses, a manure storage container (referred to previously as the Eastern Container), horse wash rack, hay storage area, and maintenance shed. Automobile parking and horse trailer parking separate the rental area from the events area. The events area has two arenas, a cattle pasture in the center of the facility, the caretaker's residence (a mobile home), an equipment storage area, two hay storage areas, a manure storage bin (Central Container), additional horse trailer parking, temporary portable toilets, a parking area, and a picnic area. The boarding area consists of a small arena, five pipe corral areas, five pastures, a hay storage area, manure storage area (Western Container), a horse wash rack, and a row of tack sheds. As shown on **Figure 2**, there are thirty-seven 16-foot x 16-foot pipe corrals and twelve 8-foot x 16-foot pipe corrals. Each pipe corral has a small rectangular metal roof (typically 4 feet by 8 feet) for shade and a feeding and watering station.

1.3 RECEIVING WATERS

The project site is located in the Calleguas Creek watershed. The South Branch of Arroyo Conejo an intermittent stream channel, flows from west to east just south of Rancho Potrero. This stream eventually joins Conejo Creek which is a tributary of Calleguas Creek.



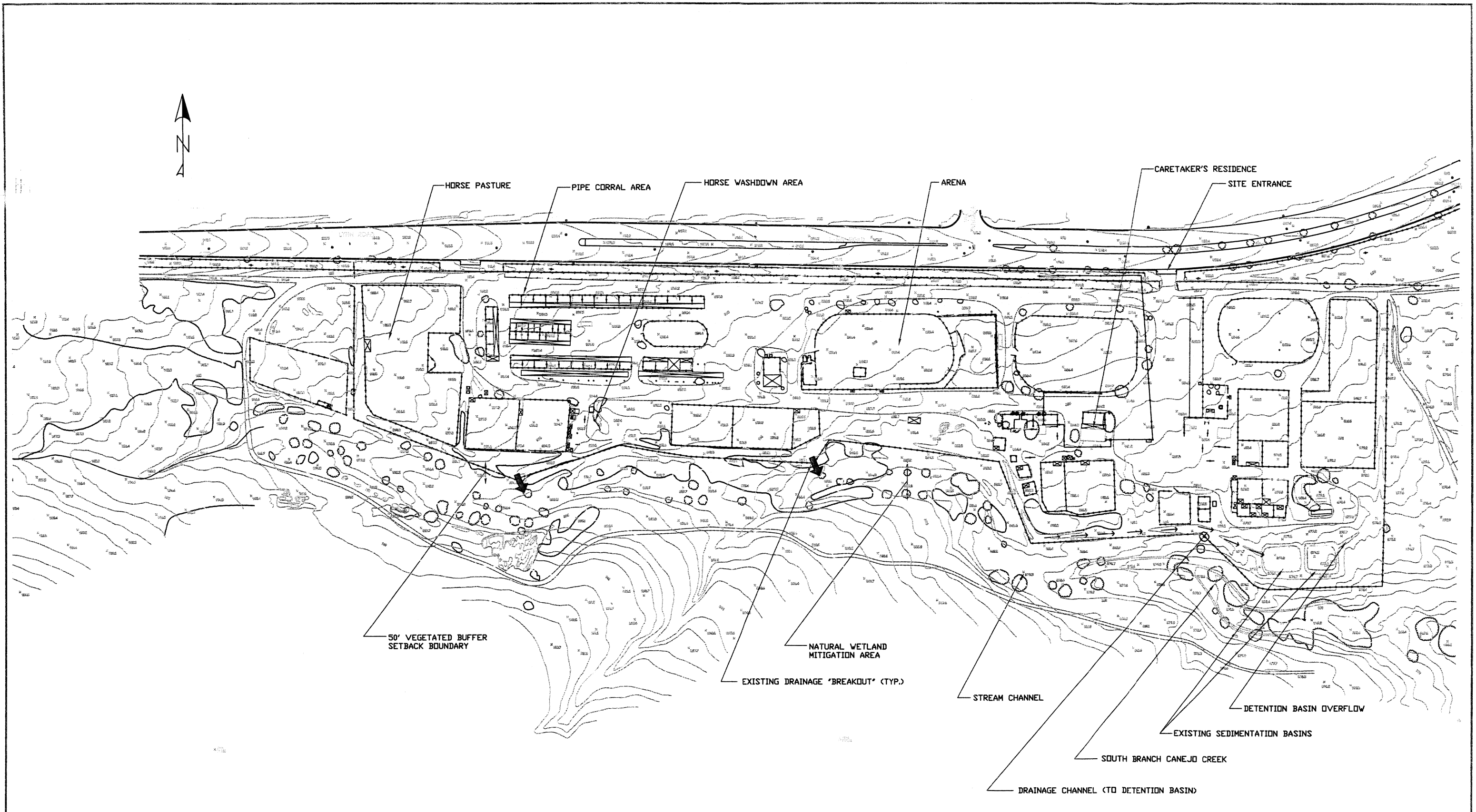
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Site Location
 Rancho Potrero
 Ventura Cnty, CA

FIGURE
1



Date:	2/8/05
Drawn:	C.H.
App'd:	N.H.
Dwg. No:	Fig. 2 Site Map and Buffer.dwg



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**SITE MAP WITH DRAINAGE
AND WETLAND FEATURES**
CITY OF THOUSAND OAKS, CALIFORNIA

**FIGURE
2**

The groundwater beneath the site flows in a generally easterly to southeasterly direction. The site does not overlie a defined groundwater basin, and local groundwater uses are very limited. There are a few scattered water wells in the project vicinity; however, the groundwater is not used locally as a drinking water source.

1.4 WATER QUALITY CONCERNS

Since Rancho Potrero was initially established as a temporary facility, it has not gone through a thorough environmental and land use permitting process. It is the intent of the City of Thousand Oaks to define the applicable environmental permitting requirements and determine what would need to be done to comply with those requirements. The United States Army Corp of Engineers have recently completed a wetlands mitigation/restoration project immediately south of this facility along the South Branch of Arroyo Conejo. No specific water quality problems had been reported prior to the beginning of this study.

2.0 APPLICABLE REGULATORY REQUIREMENTS AND STANDARDS

Table 1 provides a listing of the responsible agencies for various water quality regulatory requirements and programs that have applicability to the Rancho Potrero facility.

Table 1
ENVIRONMENTAL REGULATORY RESPONSIBILITIES

	City	County	State	Federal
Manure Management			LARWQCB – Nonpoint Source Section	
Domestic Wastewater (unsewered)		County of Ventura Dept. Health		
Domestic Wastewater (sewered)	City of Thousand Oaks, Utility Dept.			
Stormwater Runoff		County of Ventura Public Works Dept.	LARWQCB – Nonpoint Source Section	NPDES
Surface Water Quality			LARWQCB - TMDL Section	
Wetlands Protection			California Dept. of Fish and Game; LARWQCB	US Army Corp of Engineers
Groundwater Quality		County of Ventura Public Works Dept, Water Resources Div.	LARWQCB – Nonpoint Source Section	

2.1 CONCENTRATED ANIMAL FEEDING OPERATIONS

An animal feeding operation (AFO) is defined by the USEPA as an area that has animals forty-five days or more per year and the confinement area does not have vegetation on the surface during the growing season. Confined Animal Feeding Operations (CAFO) are regulated by the Clean Water Act. Whether an AFO is a CAFO is determined by the number of animals and whether or not wastewater comes into contact with surface waters. In California, the regulation of AFOs and CAFOs has been delegated to the State Water Resources Control Board (USEPA, 2003). The State Water Board's programs are implemented by the regional water quality control boards, such as the LARWQCB.

Large CAFOs are defined as having at least 500 horses or 1,000 veal calves, beef cattle or heifers (USEPA, 2003). Medium CAFOs are defined as having 150 horses/cattle and “a man-made ditch or pipe which carries manure or wastewater”, or “the animals come into contact with surface water running through the area where they are confined” (USEPA, 2003). Any AFO can be designated as a CAFO by the permitting authority (USEPA, 2003). Short brochures from USEPA (2002b and 2002c) provide concise overview of CAFO requirements.

Rancho Potrero currently does not appear to meet the definition of a CAFO. However, the expansion of the number of horses to 150 or more animals could potentially cause the site to be classified as a medium CAFO, but only if the drainage swales along the site perimeter are construed to constitute a “man-made ditch ... that carries manure or wastewater”. Field observations show no evidence that these swales currently carry wastewater from the equestrian facility. Rather, they serve to collect, filter and disperse stormwater runoff from the site.

At a minimum, CAFO requirements include:

1. Development and implementation of a nutrient management plan;
2. Annual documentation and reporting of nutrient management activities, including testing of manure, off-site transfer of manure;
3. Ongoing permitting until the animal feeding operation is closed and all manure is removed; and
4. Record retention for five years.

2.2 REGIONAL WATER QUALITY CONTROL BOARD REQUIREMENTS

In the State Water Resource Control Board’s ongoing five-year non-point source management plan, their jurisdiction over confined animal facilities is explained as follows:

“In 1982 most Regional Water Quality Control Boards (RWQCB) adopted a conditional waiver from the need for Confined Animal Facilities (CAFs) to file a Report of Waste Discharge (ROWD) as required by Title 27 of the California Code of Regulations (CCR). The waivers that applied to CAFs ended in January 2003 pursuant to Senate Bill 390. Some RWQCBs may adopt a new conditional waiver policy for Animal Feeding Operations (AFOs). The RWQCB is expected to adopt a permitting program instead of regulating the CAFs under a nonpoint source (NPS) program. In addition, under new federal regulations that became effective in March 2003, large CAFs (identified in federal regulations as concentrated animal feeding operations or “CAFOs”) are subject to National Pollutant Discharge Elimination System (NPDES) permits.

The NPDES permits apply to both the facilities and the associated cropland. However, if the animal wastes are applied to cropland in accordance with an approved Nutrient Management Plan (NMP), stormwater runoff from the cropland is not subject to regulation under the NPDES permit. That is not the case with WDRs that a RWQCB may issue to the dairy. The WDRs do not allow any discharge that can adversely impact water quality.”

The Los Angeles Regional Water Quality Control Board’s (LARWQCB) Basin Plan (1994) states “Confined animals are those that are raised in high densities. Examples of confined animal operations, include kennels, horse stables, poultry ranches, dairies, stockyards, and feedlots.” The Basin Plan also says that the RWQCB has the authority to enforce regulation of confined animal operations through Waste Discharge Requirements for point source discharges. The Non-point Source section of the LARWQCB was contacted at the beginning of this study and indicated that they have no fixed policy for a facility such as the Rancho Potrero. They indicated their approach would be to review a water quality management plan, the scope of the operations, and determine specific regulatory requirements accordingly (Jay, 2004).

To obtain more specific direction, a meeting was held with the LARWQB staff on March 14, 2005, at which time the Rancho Potrero operations and water quality management issues were discussed. As a

result of this meeting and follow-up telephone conversations, the following conclusions were reached regarding the water quality regulatory requirements for the facility:

1. Sanitary wastewater and wash water (from the horse washrack) would be considered wastewater discharges, subject to RWQCB permitting, unless the discharges are directed to a public sewer system. (Note: sewer connection is proposed)
2. The LARWQCB would be required to review and provide water quality certification for any work that involves a Clean Water Act Section 404 Corps of Engineers permit for filling or grading activities within a jurisdictional wetland. (Note: no activity within a wetland is proposed)
3. Stormwater runoff from the project site should be managed in accordance with local stormwater programs and requirements of Ventura County and/or the City of Thousand Oaks. If this is done, the RWQCB would waive waste discharge permitting requirements for the facility (Note: the proposed water quality management facilities have been developed in accordance with Ventura County requirements)

2.3 TOTAL MAXIMUM DAILY LOADS

The Calleguas Creek Watershed Total Maximum Daily Load (TMDL) for Nutrients (LARWQCB, 2002) has adopted 10 mg/L nitrate plus nitrite (expressed as nitrogen) as both a nutrient target and as a wasteload allocation for surface water.

Salts include a variety of dissolved inorganic chemicals that can generally be characterized by total dissolved solids (TDS). Surface water and ground water limits for TDS have been set for the Calleguas Creek Watershed in the salts TMDL (LARWQCB, 2003). The Basin Plan includes an instantaneous maximum objective for TDS of 850 mg/L (Larry Walker and Associates, 2004). The South Branch of Arroyo Conejo is not on the 2002 Clean Water Act Section 303(d) list of water-quality limited segments for salts. The nearest salt impaired reach is the South Fork of Conejo Creek. The salts portion of the applicable TMDL has specific objectives for designated groundwater basins; however, the Rancho Potrero does not overlie a designated groundwater basin (County of Ventura, 2004).

Although some lower reaches of the Calleguas Creek Watershed have bacteria impairments, no waters on the Conejo Creek South Fork (which drains to Calleguas Creek) are impaired for bacteria (LARWQCB, 2003). A bacteria TMDL for this watershed has not yet been drafted by the RWQCB.

2.4 VENTURA COUNTY REQUIREMENTS

The Ventura County Department of Public Works regulates stormwater management in unincorporated areas of the County. Section Chief Paul Tante was contacted in early December, 2004, to discuss permitting requirements for Rancho Potrero equestrian center. The Public Works stormwater section would review the stormwater management plan for this facility if it comes before the County. Based on preliminary information, Mr. Tante, indicated that the County would most likely defer to any requirements of the Regional Board in regard to any non-stormwater discharges from the facility. For stormwater discharges, the County would review the specific analysis and design of specific stormwater management structures and practices for conformance with County requirements.

3.0 ANIMAL WASTE PRODUCTION AND MANAGEMENT

This section reviews the number of animals maintained at the Rancho Potrero facility and quantifies the amount of animal waste produced and collected. It also describes the animal waste storage capacity for the operation.

3.1 LIVESTOCK

Approximately 60 horses are boarded on the site. Additionally, about 30 horses are in the rental facility and typically 10 horses are brought for weekend team penning competitions. The number of cattle onsite ranges from 60 to 100 at any given time. The cattle used for the team penning training and competitions typically weigh between 325 to 550 pounds.

3.1.1 Maximum Livestock Capacity

The City of Thousand Oaks has indicated that 250 animals is the desired maximum limit for this equestrian facility, under the current lease. **Table 2** summarizes the current and projected usage, including the distribution between horses and cattle.

Table 2
NUMBER OF LIVESTOCK HOUSED ON SITE

Animal Type	Current Usage	Projected Maximum Usage	
		Horse and Cattle Scenario	Horse Only Scenario
Horse	100	125	250
Cattle	60-100	125	0

3.2 ANIMAL WASTE GENERATION

The generation of animal waste has been estimated in the context of the current use of the property with 100 horses and 100 cattle. The identified sources of waste are manure from horses and cattle, and wash water from horse washing. The calculations and assumptions for these estimates are included in **Appendix A**.

One hundred horses produce approximately 5,100 pounds (lbs) of manure per day and 100 cattle produce approximately 2,540 lbs of manure per day. On an annual basis, the total combined manure production from both horses and cattle is approximately 1,400 tons.

Assuming one hundred horses are washed twice per week, the two horse washing stations produce approximately 1,500 to 3,700 gallons per week. This is equivalent to approximately 210 to 530 gallons per day (gpd).

3.3 ANIMAL WASTE COMPOSITION

The composition of nutrients, salts and bacteria was estimated using American Society of Agricultural Engineers (ASAE) Standards (1997). The results are summarized in **Table 3** below.

Table 3
ANIMAL WASTE COMPOSITION

Animal WasteType	Nitrogen¹ (lbs/ton)	Phosphorus¹ (lbs/ton)	Salts (K,Na)¹ (lbs/ton)	Bacteria² (colonies)
Horse	12	2.8	11.2	220
Cattle	12	3.2	8.3	29

1. Nutrient and bacteria calculations based on ASAE Standards (1997) cited above.

2. Total mean coliform bacteria colonies per 1000 lb. animal mass.

4.0 REVIEW OF POTENTIAL WATER CONTAMINATION SOURCES AND EXISTING MANAGEMENT PRACTICES

This section identifies and describes all of the uses of the facilities that are potential sources of nutrient, salt, and bacteria contamination, and the best management practices currently used by the operation to minimize water contamination.

4.1 DESCRIPTION OF ALL ANIMAL WASTE HANDLING, COLLECTION, STORAGE, AND PRACTICES

At Rancho Potrero, manure is cleaned from the horse pens by hand, using shovels, rakes and wheelbarrows. These pens are cleaned daily and the manure is placed in two metal bins, labeled "West Container" and "East Container". When approximately 75-percent full, these bins are hauled off for land disposal on orchard crops. The cattle pens are cleaned by tractor and scraper once per week, and this manure is loaded into a third metal bin, labeled "Central Container". This container is hauled off in the same manner as the horse manure containers.

4.2 ANIMAL WASHING AND WATERING

Horses are typically washed by the owners each time after they are ridden. Approximately 10 to 25 gallons of water is used in special washing stations to wash the horses. The watering is accomplished by automatic waterers in each pen; these waterers are supplied with water from the potable municipal water service to the site.

4.3 BEST MANAGEMENT PRACTICES CURRENTLY BEING USED TO PROTECT SURFACE WATER AND GROUNDWATER

A number of best management practices are currently used by Rancho Potrero to protect surface water and groundwater.

4.3.1 Animal Manure Management

Manure is cleaned up by hand from boarding stalls and corrals on a daily basis and by a tractor mounted front end loader with a box scraper from the cattle corral on a weekly basis. The containers are being emptied by a contractor on the following schedule:

- Western Container: Every 15 days
- Central Container: Every 22 days
- Eastern Container: Every 30 days

Nitrogen is the constituent of the manure that is most susceptible to migration to groundwater or surface waters. The annual nitrogen mass balance (**Table 4**) indicates that it is theoretically possible that all nitrogen is either removed from the site or stored in the soil. Based on interviews with the operations manager, and site observations, manure pick-up is estimated to be about 75% efficient. Approximately 13,000 lbs of nitrogen (78% of the total nitrogen generated onsite) is removed from the site annually. Approximately 3,600 lbs of nitrogen (22% of the total nitrogen) is left onsite where it may take one of several pathways: (a) incorporation and storage in the soil; (b) volatilization; (c) leaching to groundwater; or (d) carried offsite with stormwater runoff. It is likely that some of the remaining nitrogen follows each

of these routes; however, it is not possible to estimate the distribution among the different routes. Various factors influence the fate and transport of the nitrogen. For example, the nitrogen stored in soil that originated from horse manure is primarily organic-N, while the nitrogen that originated from cattle manure is likely to be approximately 25% ammonia-N. For this nitrogen to leach to groundwater, it would need to be mineralized to nitrate-N, a soluble form of nitrogen, and then transported to the groundwater by percolating rainwater. On the other hand, nitrogen bound to soil particles may be carried in runoff along with soil, to the extent that soils are eroded or washed from the site.

Table 4
EXISTING ANNUAL NITROGEN MASS BALANCE

Animal Waste Type	Nitrogen Species (lbs)	Collected & Removed from site (lbs)	Remaining onsite* (lbs)	Subtotal
Horse	Nitrate-N			
	Ammonia-N			
	Organic-N	7,655	3,529	11,184
	Subtotal	7655	3,529	11,184
Cattle	Nitrate-N			
	Ammonia-N	1,360	29	1,389
	Organic-N	4,080	87	4,167
	Subtotal	5,440	116	5,556
TOTAL		13,095	3,645	16,740

- Fate of nitrogen remaining onsite includes: (a) storage in soil; (b) volatilization; (c) leaching to groundwater; and (d) carried offsite with runoff.

4.3.2 Stormwater Management

Currently, rainfall runoff is diverted away from animal housing and animal waste handling areas by low berms at the edge of the pens, corrals and arenas. All runoff from the site itself is directed to a shallow swale inside, and generally parallel to, the southern boundary of the facility. This shallow swale overflows to the constructed wetland at three locations along the southern boundary of the facility. The more distinct swale along the southern boundary of the eastern one-third of the property diverts runoff to the two stormwater detention basins. The detention basins are each approximately 2,500 square feet in area. These basins are about two to three-feet deep, which provides for the storage of most “normal” stormwater plus a small freeboard. The vegetative cover within the pond area is mowed during the growing season. Reportedly, the swale and detention basins have been periodically cleaned out by the facility operator. Field observations in December 2004 indicate that the two detention basins maintain a ponded water condition during rainy periods, and do not fully drain between storms. Outflow from the basins during larger storm events appears to occur via discharge from the influent drainage swale on the east side of the basins. From this point water flows overland toward the adjacent wetland mitigation area near the southeast corner of the site.

4.3.3 Domestic Wastewater Management

The ranch caretaker's residence is served by a wastewater holding tank that is periodically pumped out. The people who work at the ranch, rent or board horses, and/or attend events use portable chemical toilets.

4.3.4 Other Site Features and Practices

Other existing site features and practices that help to reduce environmental impacts from the Rancho Potrero Equestrian Facility include:

1. Entire site is setback a minimum of 50 feet from the centerline of the South Branch of the Arroyo Conejo.
2. Pastures are setback an additional minimum of 10 feet from the perimeter of the property.
3. The main horse boarding area and the cow pen are located on the north side of the project area to maximize the distance between these areas and the blueline stream. The pipe corral area in the northwest portion of the facility is located 225 feet to 375 feet from the stream, and the cow pen is located 200 feet to 340 feet from the stream.
4. The caretaker's quarters are setback 250' from the center of the blueline channel.
5. A minimum 10' wide natural grass filter strip is located on the east, south and west sides of the facility to filter overland flow.
6. The entire site contains a gentle 1-3% gradient to minimize erosion and sediment transport off-site.
7. Manure is stored above ground in metal bins to avoid contact with surface water and wind erosion.
8. Manure bins are located a minimum 100 feet from the center of the blueline stream (separation of bins from center of blueline stream is 135 feet, 215 feet and 320 feet).

5.0 SURFACE WATER ASSESSMENT

5.1 SURFACE WATERS AND WETLANDS

The closest surface water body is the South Branch of Arroyo Conejo, which is located approximately 100 to 200 feet south of the Rancho Potrero facility. The headwaters of this creek are located a few hundred yards upstream of Rancho Potrero. The creek is a slow flowing ephemeral watercourse running west to east. The South Branch flows into Arroyo Conejo, which flows from east to west before joining Calleguas Creek, which ultimately flows to the Pacific Ocean.

Rincon Consultants have evaluated the wetland area north of this willow-lined watercourse (**Appendix B**). The wetland was restored as a mitigation project for an off-site development project. The project was privately funded, but coordinated by the United States Army Corp of Engineers (USACE). The USACE has mapped the wetland, and a 50-foot wide buffer that runs parallel to the south boundary of Rancho Potrero. This buffer extends up to 50 feet into the Rancho Potrero facility in some areas. This is shown in **Figure 2**.

The South Fork of Conejo Creek (Arroyo Conejo) is included on the 2002 Clean Water Act 303(d) list of Water Quality Limited Segments. A 17-mile long reach of this creek is reportedly impaired due to algae and ammonia. Potential sources of impairment are identified as both nonpoint and point source. According to the 303(d) list, the creek is a high priority for development of a TMDL (Total Maximum Daily Load).

5.2 EXISTING STORMWATER MANAGEMENT SYSTEM

The site is predominantly un-vegetated or bare soil with a paved driveway running around the central arenas and boarding area. The surface runoff generally flows toward the southeast at a slope of one to three percent. A small shallow swale (10'-12' across and 2'-3' deep) has been constructed immediately inside of, and generally parallel to, the southern boundary of the facility. Field observation of this swale in December 2004 revealed that in the western two-thirds of the southern boundary there are at least two places where the south side of the swale does not have a containment berm. In these locations it appears likely that surface water pools and then runs off laterally into the restored wetland area. In the eastern third of the southern boundary of the site the swale is more well-defined and water is diverted to two small detention basins. It is likely that the flow of water from the Two Winds facility into the wetland contributes beneficially to the hydrologic function of the restored wetland area.

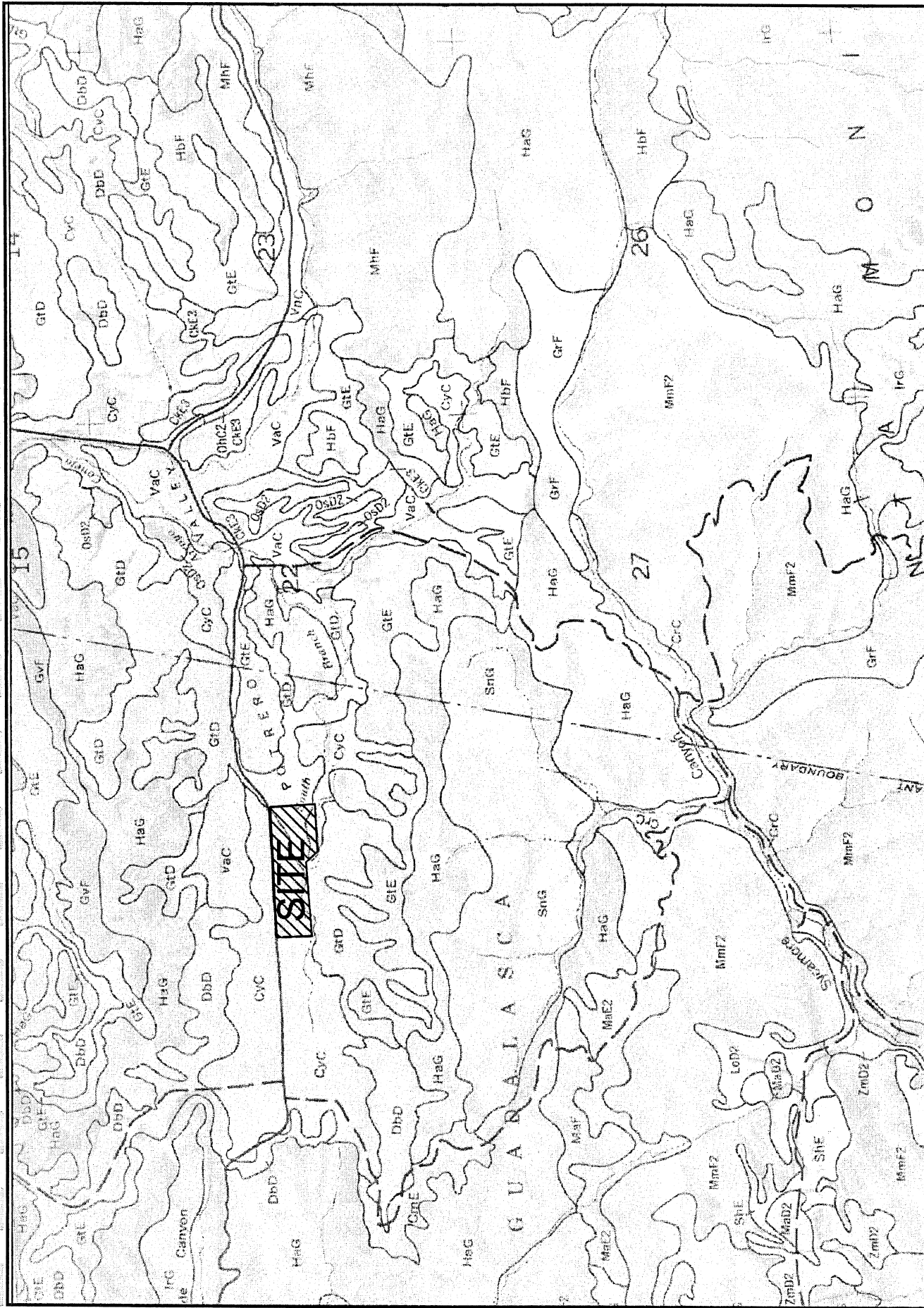
Two rectangular earthen detention basins are located near the southeast corner of the facility. The runoff from the eastern half of the site drains into these basins. The basins are approximately 50-feet by 50-feet across and approximately 3-feet deep. According to the facility operator, they have not filled and overflowed in the 10-year history of the facility at this location. However, available topographic information aerial photos, and our site observations indicate that the ponds will only fill to a certain level before causing runoff to back up into the drainage swale that enters the eastern corner of the detention ponds. Once the ponds are full, additional runoff overflows via this drainage swale toward the southeast corner of the property.

A staff gage was installed in each basin, along with a rain gauge, on December 17, 2004. On two occasions in the following month, the rain gauge was full (measuring 5.5 inches of water) and the basin gages indicated less than 20 inches of water in each basin. These observations tend to confirm the anecdotal information that the basins have a point of overflow below the top of the embankment.

5.3 GEOLOGY AND SOILS

The project site is flat to gently sloping terrain, with a gradient of 1 to 3 percent toward the southeast. The local bedrock consists of Conejo Volcanics, which occur throughout the Santa Monica Mountain region. The rock types in this formation include basalt, basaltic andesite, andesite, dacite lava flows and breccia lava flows, that are typically dense, hard and massive. Borehole logs from installation of monitoring wells showed the bedrock to be generally at a depth of about 15 to 20 below ground surface beneath the site. A notable exception to this was along the eastern boundary of the site, where bedrock was encountered at depth of 5 feet. There are no major mapped faults beneath the study area.

The soils in this area were originally mapped as part of the 1970 Soil Survey of Ventura County (**Figure 3**). More recently, the soils have been mapped as the Kayiwish Series soil mapping unit by the Natural Resources Conservation Service (NRCS) as part of the draft Santa Monica Mountains Soil Survey. These soils are formed in residuum and colluvium in the Santa Monica Mountains. They are moderately well drained soils with a clay surface horizon. They have very slow permeability and medium to high runoff potential. Therefore, they are likely classified as Hydrologic Soil Group D. The leaching potential of this soil is considered low due to the very slow permeability.



SOILS MAP
RANCHO POTRERO
 THOUSAND OAKS, CALIFORNIA

FIGURE
3

QUESTA ENGINEERING CORP. P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807 (916) 225-6114 FAX (916) 225-5023 qeusa@questacorp.com	Civil Environmental & Water Resources	
	Date:	2/8/05
	Drawn:	C.H.
	Appr'd:	N.H.
Dwg. No: Fig.3.dwg		

6.0 GROUNDWATER ASSESSMENT

6.1 GROUNDWATER CONDITIONS

The project site lies outside of any groundwater basins mapped by the County of Ventura (Panaro, 2004). The nearest mapped groundwater basin is approximately one-third of a mile down the South Branch of Arroyo Conejo valley from Rancho Potrero.

Background research regarding groundwater conditions included review of well logs for two water supply wells located in the site vicinity as follows:

- One well (state well number 1N20W-21L1) is located approximately 500 feet southwest from Rancho Potrero. This well was drilled in 1989. It had 15 feet of overburden and penetrated bedrock to a total depth of 180 feet. This well had a reported yield of 48 gallons per minute and a static water level at 60 feet below grade. This well was field inspected in December 2004 and found to be inactive, with the above ground electrical system in serious disrepair. No water level readings were taken and no samples were collected.
- A second well (state well number 1N20W-21L1) is located approximately one hundred feet east of Rancho Potrero along the north side of the South Branch of Arroyo Conejo. No data are available at the County of Ventura Water Resources Division regarding the construction of this well. One possible explanation for the lack of well records is that it may have been drilled prior to 1945. This well was also not sampled.

6.2 GROUNDWATER MONITORING WELL INSTALLATION

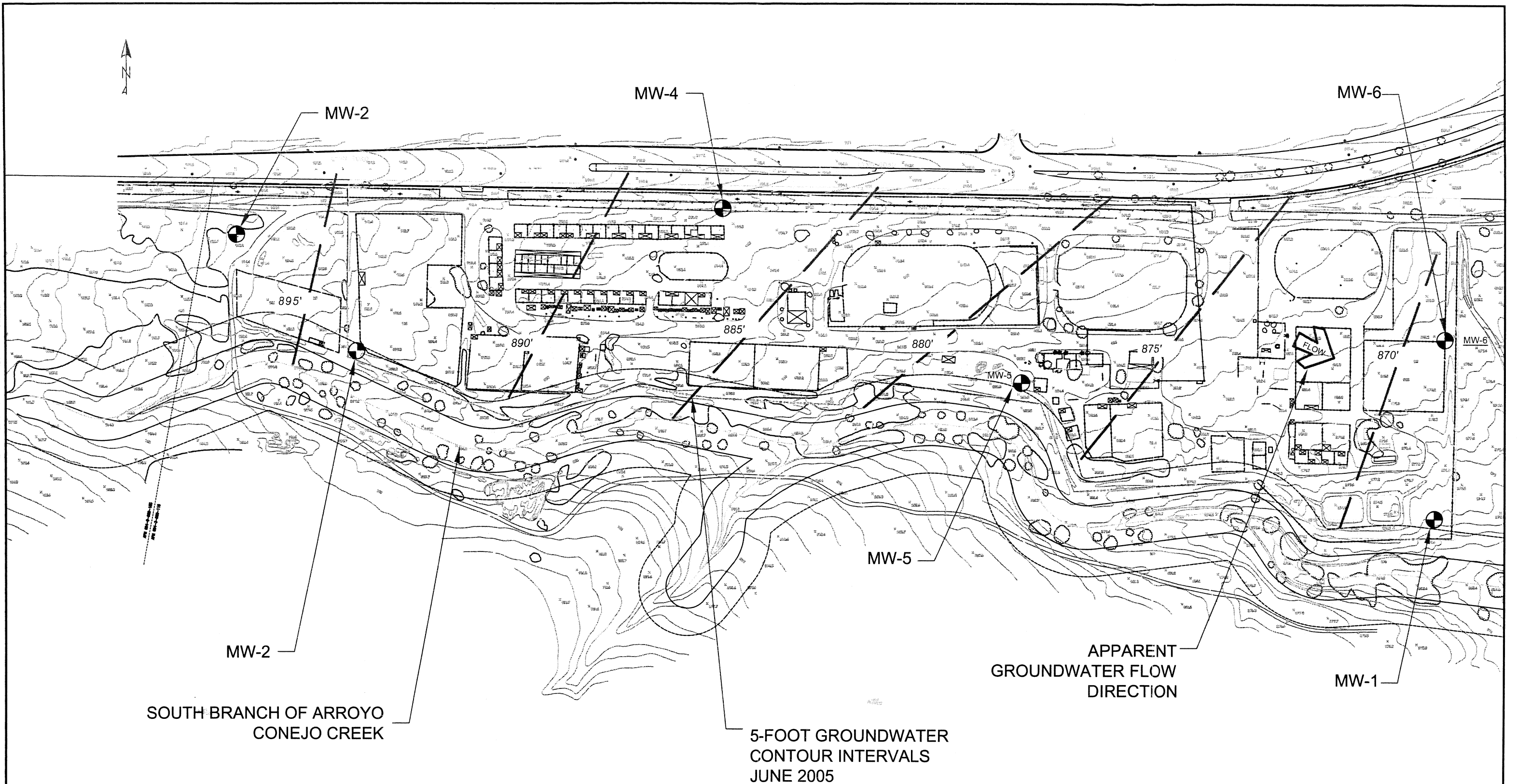
Six monitoring wells were installed as part of this investigation. Two monitoring wells were installed on December 22, 2004; and four additional wells were installed on May 23 and 24, 2005. They were located around the perimeter of the property (**Figure 4**) with the intent of characterizing the groundwater flow direction and groundwater quality conditions. The wells were drilled a minimum depth of 10 feet below ground surface (ft, bgs), to bedrock, or if bedrock was not encountered to a maximum depth of approximately 25 feet. Monitoring well characteristics are summarized in **Table 5**.

Table 5. Summary of Monitoring Well Characteristics

Monitoring Well	Depth to Bedrock (ft, bgs)	Screened intervals (ft, bgs)	Depth to Water on 1/5/05 (ft, bgs)	Depth to Water on 6/22/05 & 6/23/05 (ft, bgs)	Approximate Elevation of Water Table June 2005 (ft, AMSL)
MW-1	20.3	5 - 15	4.5	5.6	869
MW-2	21.3	10 - 20	5.8	5.6	894
MW-3	>25.75	15 - 25	NI	8.9	897
MW-4	15	6 - 16	NI	8.4	888
MW-5	20	10 - 20	NI	7.3	877
MW-6	5	5 - 10	NI	9	869

NI = not installed at time of measurement

AMSL = above mean sea level



Date:	2/7/05
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Dwg. No:	REV_Well Locations Fig. 9.dwg



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MONITORING WELL LOCATIONS
RANCHO POTRERO
CITY OF THOUSAND OAKS, CALIFORNIA

FIGURE

4

The soils encountered in the monitoring well boreholes were predominantly silty sand with clay, with textures ranging between silty sand to clay; well completion logs are provided in **Appendix C**. Fractured bedrock (basalt) was encountered at depths of 5 to greater than 25 feet below ground surface. Monitoring wells were installed with 5 to 10 feet of slotted well screen (**Table 5**). Groundwater was encountered between 4.5 and 9 feet below the ground surface in December 2004, January 2005 and June 2005. Water table elevations were estimated using ground surface contours, at 5-foot contour intervals, and water level readings. Approximate water table contours indicate groundwater flow at the site to be from northwest to southeast, generally following the surface topography (see **Figure 4**).

6.3 GROUNDWATER QUALITY SAMPLING

After MW-1 and MW-2 were developed, they were sampled on January 5, 2005, and analyzed for nitrate expressed as nitrogen (nitrate-N), total dissolved solids (TDS), and three bacteria analyses: total coliform, *E. coli*, and fecal coliform. Monitoring wells MW-1 through MW-5 were sampled on June 22nd - 23rd, 2005, after wells MW-3, MW-4, and MW-5 were installed and developed. Monitoring well MW-6 was not sampled due to insufficient depth of water in the well on the date of sampling.

The water quality sampling results are presented in **Table 6**; laboratory reports are included in **Appendix C**.

Table 6. Summary of Groundwater Quality Monitoring Results

Parameter	Units	Average Concentrations ^{1,2,3}						
		MW-1		MW-2		MW-3	MW-4	MW-5
		5-Jan-05	23-Jun-05	5-Jan-05	23-Jun-05	22-Jun-05	22-Jun-05	22-Jun-05
Nitrate as N	mg/L	13.5	<0.01	9.97	<0.01	3.89	47.5	44.0
Total Dissolved Solids	mg/L	902	917	958	859	613	770	1202
Total Coliforms	MPN/100 ml	15	<2	19	2*	51	76	42
<i>E. coli</i>	MPN/100 ml	<2	<2	<2	<2	<2	2	2*
Fecal Coliforms	MPN/100 ml	3	<2	<2	<2	2*	2	10

¹ Each sample was analyzed twice at the laboratory, the average of the two results for each sampling date are reported above

² Concentrations reported with "<" sign indicates that result was less than the detection limit; followed by the detection limit

³ Concentrations reported with an asterisk (*) signify that one of the concentrations is less than detection limit - the value reported is the concentration greater than detection limit

Following is a discussion of the groundwater quality test results.

- **Nitrate-N.** Nitrate-N concentrations were highly variable in the groundwater beneath the site. There were localized high levels. Although not conclusively attributable solely to the equestrian center, these high readings reinforce the need for enhanced manure management as a conservative and precautionary measure.
 - **January 2005.** The average nitrate-N was at the maximum contaminant level for drinking water of 10.0 mg/L (range 8.64 - 11.3) in MW-2 and averaged 13.4 mg/L (range 13.4 - 13.5) in MW-1. The nitrate-N water quality standard in the Basin Plan is 10 mg/L, which reflects the maximum contaminant level for drinking water. Therefore, the

background groundwater quality (at MW-2) appears to be at or near the water quality standard. The increase in concentration of nitrate-N (from MW-2 to MW-1) indicates a possible increase in nitrate levels across the site.

- **June 2005.** The nitrate-N results from the second sampling event varied from less than the limits of detection (0.01 mg/L) in MW-1 and MW-2 to as much as 48 mg/L and 44 mg/L in MW-4 and MW-5, respectively. An elevated nitrate-N concentration was indicated in the most up-gradient well, MW-3, which had a concentration of approximately 4 mg/L. Monitoring well MW-4 is located generally up-gradient of the site along Lynn Road and may be influenced by nitrogen from up-gradient sources north of Lynn Road, such as nitrogen leaching from lawn fertilizer in the dense residential development; or by lateral dispersion of nitrogen from the area of the pipe corrals at Rancho Potrero. The nitrate-N concentration measured at MW-5 appears that it is likely influenced by nitrogen loading from manure management in the vicinity of the cattle holding area.
- **Total Dissolved Solids.** The TDS concentrations were consistent in both sampling events with a range of 600 to 1,200 mg/L. These concentrations are all below the Basin Plan's 1,400 mg/L objective for TDS in the upper Conejo Creek and Thousand Oaks area (LWA, 2004). An increase in TDS concentrations from MW-4 to MW-5 may indicate an increase in salts resulting from manure management at the equestrian center.
 - **January 2005.** For this sampling event, TDS was measured at 916 and 1,000 mg/L in MW-2 and measured at 804 and 1,000 mg/L in MW-1. These results are essentially the same, and indicate that the facility is not having a measurable impact on TDS in the groundwater. The drinking water standard for TDS is 1,000 mg/L, which is a secondary standard recommended based on its effect on consumer acceptance.
 - **June 2005.** The second sampling event indicated a wider range of TDS, from approximately 600 to 1,200 mg/L. Monitoring wells MW-1, MW-2, MW-3, and MW-4 were all below 1,000 mg/L, while the average TDS concentration in MW-5 was 1,200 mg/L. The increase in TDS from approximately 770 mg/L at MW-4 to 1,200 mg/L in MW-5 indicates a possible impact of manure management on groundwater quality as it moves across the equestrian center.
- **Bacteria.** Bacteria results do not appear to indicate significant bacterial contamination of the groundwater due to the operation of the facility.
 - **January 2005.** Low levels of total coliform (4 to 30 MPN/100 ml) were present in MW-1 and MW-2. *E. coli* was not detected in either well. Fecal coliform was not detected in MW-2; and very low concentrations of fecal coliform (2 to 4 MPN/100 ml) were present in MW-1. The low concentrations of total coliform bacteria in the groundwater samples may be an artifact of the drilling process where the augers penetrate surface materials and may carry small amounts of foreign material to the groundwater during drilling.
 - **June 2005.** All bacteria tests in MW-1 and MW-2 were less than detection limits in the second sampling event. The upgradient wells, MW-3 and MW-4 had concentrations for *E. coli* and fecal coliform, at or below the detection limit of 2 MPN/100ml, and respective averages of 51 and 76 MPN/100 ml total coliform concentrations. Monitoring well MW-5 had an average total coliform concentration of 42 MPN/100 ml, less than or equal to detection limits for *E. coli*, and a range of 8 to 11 MPN/100 ml fecal coliform

concentrations. These results confirm the January 2005 analyses, showing a possible small influence of the manure management practices on groundwater bacteria concentrations. However, the low levels in June may also be a residual temporary effect of the drilling operation.

Based on the observed groundwater flow direction, illustrated in **Figure 4**, it appears that background concentrations of total coliform, *E. coli*, fecal coliform and TDS are, at most, minimally influenced by the existing equestrian facility operation. However, nitrate-N sampling results showed an apparent increase in concentration from the upgradient to downgradient side of the facility during the January sampling event. During the more extensive June sampling event, nitrate-N was consistently lower in monitoring wells around the perimeter of the site; however, there appear to be localized impacts near the center of the site, possibly influenced by manure management in the cattle holding area and pipe corrals.

7.0 WATER SUPPLY AND WASTEWATER DISPOSAL

The California America Water Company provides water service to the facility. Water would have to be supplied to any freestanding restroom that may be added in the future.

The current caretaker's residence currently utilizes a holding tank for sanitary wastes. This is adequate for temporary use, but it is not a suitable long-term solution. Connection to the sanitary sewer system located in Lynn Road/Potrero Road is recommended. At a minimum, the sanitary sewer connection for the residence should be sized based on a three-bedroom home, or having a design flow of approximately 450 gallons per day. Additionally, the two sets of temporary toilets (serving facility renters and guests) should be replaced by a permanent restroom to serve 6 staff (15 gpd/staff person) and 100 facility users (5 gpd/visitor or event attendee), with a daily design flow of roughly 600 gpd. These two sources of sanitary wastes would result in a total domestic wastewater flow of about 1,000 gpd. The sewer connection will also need to be expanded to include a limited amount of horse wash water up to about 500 gpd.

8.0 RECOMMENDED MANAGEMENT PRACTICES

8.1 STORMWATER RUNOFF TREATMENT

8.1.1 *Description of Recommended Improvements*

The prevention and/or treatment of stormwater runoff from the Rancho Potrero equestrian center is very important to preclude harmful impacts on surrounding water bodies and wetland areas. Various stormwater runoff treatment approaches were considered and evaluated. The alternatives included a combination of natural buffer zones (i.e., wetland setback), constructed grass swales ("bioswales"), infiltration drainage enhancement, and sedimentation basins similar to the existing basins. After considering input from the Regional Board staff, site conditions, and overall operational needs and plans for the facility, the stormwater runoff control measures for Rancho Potrero are recommended to include the following (**Figure 5**):

- **Vegetated Wetland Buffer.** A minimum 50-foot wide vegetated buffer will be maintained between the equestrian facility and the restored wetland area along the southern boundary of the site. Most of this buffer area lies outside of the Rancho Potrero boundary. Activity areas currently within the 50-foot buffer area will be removed, and the area will be allowed to return to natural vegetated open space.
- **Vegetated Bioswales.** All runoff from the equestrian facility will be directed through a series of vegetated bioswales that will border the southern side of the site. The bioswales will be constructed entirely outside (north) of the 50-foot wetland buffer. The proposed bioswales consist of broad, low-gradient vegetated channels that are designed to trap, filter and absorb sediment and other suspended material carried in site runoff. The proposed bioswale design also includes a gravel-filled underdrain to promote infiltration into the soils beneath the bioswale. Additionally, improvement plans for the site include the provision of irrigation lines to help develop the vegetation (i.e., "green-up") in the fall and early winter months prior to the rainy season.

The bioswales are designed to convey and treat 10% of the 50-year peak flow. The recommended plan calls for a series of five bioswales, which each treat the runoff from a defined portion (sub-area) of the site, and drain into the natural vegetative buffer area via "release points". The purpose of this design approach is to help maintain the natural dispersed flow of water toward the wetland from the site to minimize any significant changes in wetland hydrology.

The existing small sedimentation basins located in the southeast corner of the site are recommended to be removed in favor of the bioswales. This recommendation is based on several considerations: (1) the bioswales will provide an equal or better degree of treatment by bringing the runoff in direct contact with vegetation; (2) the bioswales will help maintain a dispersed flow of filtered runoff along the wetland border, rather than concentrating the discharge of runoff in the southeast corner of the site; (3) the gravel underdrains will provide greater opportunity for infiltration into the soils than can occur through the bottom of the sedimentation basins; and (4) nuisances and potential mosquito problems associated with standing water in the sedimentation ponds will be eliminated.

8.1.2 Methodology for Bioswale Design

The bioswale design has been developed following the Ventura County design criteria contained in the “Technical Guidance Manual for Stormwater Quality Control Measures” (TGMSQCM). Supporting design calculations are provided in **Appendix D**. Sheet, plus culvert flow at certain points, will enter the bioswales for conveyance and treatment. The bioswales are designed with 4:1 side slopes and a bottom width of 9 feet. The flow in each bioswale will not reach the maximum water level depth of 3-5-inches from 10% of the 50-year peak flow, and will obtain an effective residence time of greater than 7 minutes, as required by the Ventura County TGMSQCM. The bioswale within the eastern section of the site is looped to provide sufficient residence time for stormwater treatment. As note above, a gravel-filled underdrain will be constructed along the bottom of each bioswale to promote greater infiltration of runoff. The under drains will have a bottom width of 1 to 2-feet.

The method used to find the required flow rates is based on the City of Thousand Oaks Master Plan of Drainage. $Q_{p, 50yr}$ is calculated from sub-areas between 40 and 80 acres that already have $Q_{p, 10yr}$ and $Q_{p, 100yr}$ determined based on a set time of concentration, T_c . The relationship, $Q_{10} = 0.68Q_{50}$ was used to find Q_{50} once Q_{10} was found from the flow table (see attached spreadsheet in **Appendix D**). Once Q_{50} is known for each of the five sub-areas of the site, the velocity and depth of flow was determined by setting the velocity from Manning’s Equation, equal to the velocity determined from Q_{50}/A_{flow} .

8.2 OTHER RECOMMENDED MANAGEMENT PRACTICES

In addition to the implementation of stormwater runoff management improvements presented above, following are a listing of general management practices that can and should be implemented regarding ongoing operations and development of the internal features of the equestrian facility.

8.2.1 Cattle Management

Facility Runoff Related BMPs:

- Use buffer strips around cattle pen to filter sediments.
- Use berms or ditches to contain runoff around cattle pen.
- Vegetation should be maintained around cattle pen to reduce erosion and runoff flows.
- A sufficient amount of sand or sawdust should be kept in the pen to improve infiltration and drainage.

Bacteria/Nutrient Prevention BMPs:

- Manure should be removed regularly or covered to prevent any interaction with runoff.
- Temporary manure storage should be used when all manure cannot be disposed of daily.
- Composting is a good alternative for manure disposal if conditions are suitable.

8.2.2 Horse Washing Areas

Facility Runoff Related BMPs:

- Wash water from the horse should be contained by digging drainage ditches around the wash area.

- Per direction of the LARWQCB, the wash water should be collected and directed to the sanitary sewer system.
- Wash area should be elevated above the surrounding ground.
- A shutoff or low flow nozzle should be used at the end of the hose.
- Grooming and health products should be used properly to prevent these chemicals from entering any waterways.
- Soap should be avoided if possible and plain water should always be used for washing purposes.

8.2.3 *Manure Storage Area*

Manure Storage:

- Manure storage areas should be located in such a way as to prevent any manure from contacting any water flows.
- Secondary containment should surround the manure storage area to prevent any manure from making contact with the ground or surface runoff.
- The grounds should be policed prior to any anticipated major storm event to minimize the amount of manure exposed to rainfall runoff.
- The base of the manure storage area should be constructed of impermeable materials to prevent any nutrients from leeching into the ground.
- Manure storage area should be covered to reduce contact with water, odor, flies and parasites.
- Manure should be cleaned daily from stalls, pens and corrals if possible.

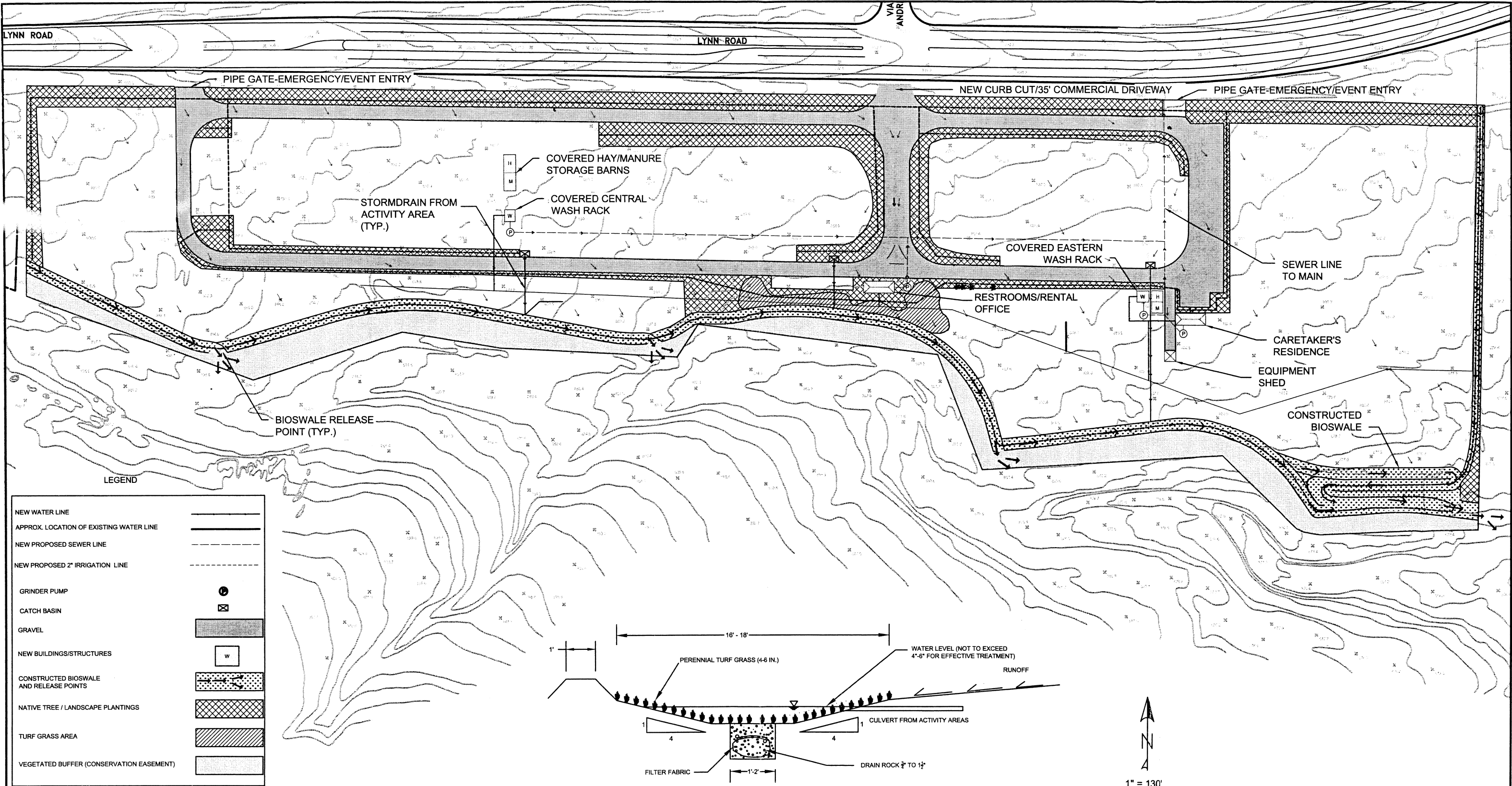
Use of Manure on the Site:

- Manure may be used as fertilizer for growing vegetation around the site to help control runoff and erosion.
- Composting the manure will help reduce the concentration of chemicals (including nitrogen) within the manure and help vegetation utilize the manure more efficiently.

8.3 CONSTRUCTION COST ESTIMATES

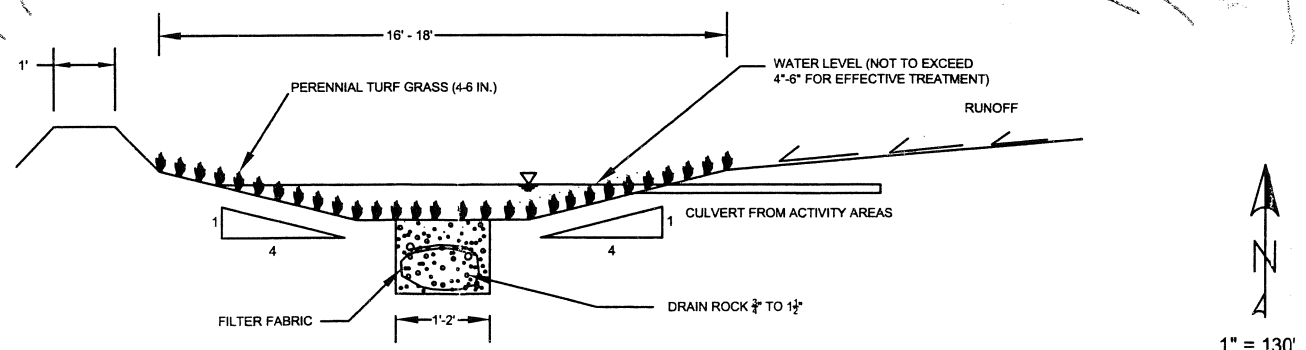
Preliminary construction cost estimates have been prepared for the water quality improvements, and included as a part of the overall cost estimates for site improvements under consideration for the Rancho Potrero equestrian facility. Cost that pertain to water quality improvement include bioswale grading and construction, relocation of the two horse washing stations and new sewer piping/storm drains. The total estimated cost for each improvement is as follows:

- | | |
|---------------------------------|-----------|
| ▪ Bioswale construction | \$ 66,575 |
| ▪ Horse washing stations (2) | \$ 7,000 |
| ▪ New sewer system/storm drains | \$ 68,780 |



LEGEND

- NEW WATER LINE
- APPROX. LOCATION OF EXISTING WATER LINE
- NEW PROPOSED SEWER LINE
- NEW PROPOSED 2" IRRIGATION LINE
- GRINDER PUMP
- CATCH BASIN
- GRAVEL
- NEW BUILDINGS/STRUCTURES
- CONSTRUCTED BIOSWALE AND RELEASE POINTS
- NATIVE TREE / LANDSCAPE PLANTINGS
- TURF GRASS AREA
- VEGETATED BUFFER (CONSERVATION EASEMENT)



CROSS SECTION OF GRASS INFILTRATION SWALE (NTS)

Date:	7/16/05
Drawn:	C.H.
Appr'd:	N.H.
Dwg. No:	240062

QUESTA

Civil
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PROPOSED IMPROVEMENTS
RANCHO PORTRERO EQUESTRIAN PARK
THOUSAND OAKS, CALIFORNIA

FIGURE

5

9.0 REFERENCES

1. American Society of Agricultural Engineers, 1997, ASAE Standards: Standards, Engineering Practices and Data Adopted by the American Society of Agricultural Engineers, 44th edition, St. Joseph, MI.
2. California Regional Water Quality Control Board Los Angeles Region; August 30, 2002 Revised: October 24, 2002; *Total Maximum Daily Loads For Nitrogen Compounds And Related Effects Calleguas Creek, Tributaries, And Mugu Lagoon - Staff Report*
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11. United States Department of Agriculture – Natural Resource Conservation Service; 2004; unpublished draft soil maps for the Santa Monica Soil Survey area provided by the Somis, CA NRCS Office.
12. U.S. Environmental Protection Agency, November 2003, *Producers' Compliance Guide for CAFOs - Revised Clean Water Act Regulations for Concentrated Animal Feeding Operations (CAFOs)* Office of Water Office of Wastewater Management; EPA 821-R-03-010.
13. USEPA; February 2002a; *Concentrated Animal Feeding Operations (CAFO) - Final Rule*
14. USEPA; December 2002b; *Concentrated Animal Feeding Operations Will my operation be regulated?* Information Series Pamphlet # EPA 833-F-02-06.
15. USEPA; December 2002c; *Concentrated Animal Feeding Operations What Are the Federal Requirements for Horse and Sheep CAFOs?* Information Series Pamphlet # EPA 833-F-02-011.

Appendix A

Manure Management Analysis

Appendix A - Manure Management Analysis

Calculations A-1 Total Amount of Animal Waste Produced Annually

Waste Type Annual Production/Collection

Solid tons = 5100 lb/day + 2540 lb/day = 7640 lb/day X 365 days /2000 lb/ton = 1394 tons/yr

$$\left[\frac{(100 \text{ horses} \times 51 \text{ lb. manure} \times 1000 \text{ lb live wt})}{1000 \text{ lb live wt. horse}} + \frac{(100 \text{ calves} \times 58 \text{ lb. manure} \times 438 \text{ lb. live wt})}{1000 \text{ lb. live wt. calf}} \right]$$

Liquid gallons = (10 to 25 gal/horse per wash; 100 horses @ two washes per week)

18.5 gallons per wash X 2 washes/week X 100 horses = 3700 gal/week X 52 week = 192,400 gallons/yr

Table A-1
ANIMAL WASTE ANNUAL MASS BALANCE

Animal Waste Type	Produced ¹ (tons)	Collected and Removed from site ² (tons)	Remaining onsite ³	
			Relatively Immobile (tons)	Relatively Soluble or Mobile (tons)
Horse	932@29%TS	370@50%TS	-	562
Cattle	463@15%TS	170@40%TS	-	293

The following calculations use manure production parameters from the Standards of the American Society of Agricultural Engineers(ASAE), 44th Ed., 1997, "Manure production and characteristics, ASAE D384.1 Dec 93, Page 650:

$$1. \left[\frac{(100 \text{ horses} \times 51 \text{ lb. manure} \times 1000 \text{ lb live wt})}{1000 \text{ lb live wt.-day horse}} \times \frac{365 \text{ days}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lb}} \right] = 932 \text{ tons/year @29\% TS}$$

$$\left[\frac{(100 \text{ calves} \times 58 \text{ lb. manure} \times 438 \text{ lb. live wt})}{1000 \text{ lb. live wt. Calf}} \times \frac{365 \text{ days}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lb}} \right] = 463 \text{ tons/year @ 15\% TS}$$

2.

a. Horses: West bin and east bin: @ Volume (20'X6'X6')X .75 full = $\frac{540 \text{ cu. ft.}}{27 \text{ cu. ft./cu. yd.}} = 20 \text{ cu.yds}$

Assuming manure @ 50 % TS, density @ 1000 lbs/cubic yard, 20 cu. yd X $\frac{1000 \text{ lb}}{2000 \text{ lb/ton}} = 10 \text{ tons/bin}$

Annual removal: West bin: 365 days/15 days/load = 25 loads X 10 tons = 250 tons

East bin: 365 days/30 days= 12 loads X 10 tons = 120 tons, total horse manure = 370 tons

b. Cattle:Central bin: 20 cubic yards, assume 40 % TS @ 1000 lb/cu. yd. =10 tons/load

Annual removal = 365 days/22 days/load = 17 loads X 10 tons = 170 tons

3. These numbers assume that most of the material remaining onsite is water that evaporates before the material is collected and removed from the site.

Table A-2
ANIMAL WASTE COMPOSITION

Animal Waste Type	Nitrogen⁴ (lbs/ton)	Phosphorus⁴ (lbs/ton)	Salts (K,Na)⁴ (lbs/ton)	TDS (lbs/ton)	Bacteria⁵ (colonies)
Horse	12	2.8	11.2	-	220
Cattle	12	3.2	8.3	-	29

4. Nutrient and Bacteria calculations based on ASAE Standards(1997) cited above:

a. Horses: $0.3 \text{ lb Nitrogen} \times 2000 \text{ lb} = 12 \text{ lbs./ton}$

51 lb manure ton

$0.071 \text{ lb Phosphorous} \times 2000 \text{ lb} = 2.8 \text{ lbs./ton}$

51 lb manure ton

$(0.25 \text{ lb K} + .036 \text{ lb Na}) \times 2000 \text{ lb} = 11.2 \text{ lbs./ton}$

51 lb manure ton

b. Cattle: $0.34 \text{ lb Nitrogen} \times 2000 \text{ lb} = 12 \text{ lbs./ton}$

58 lb manure ton

$0.092 \text{ lb Phosphorous} \times 2000 \text{ lb} = 3.2 \text{ lbs./ton}$

58 lb manure ton

$(0.21 \text{ lb K} + .03 \text{ lb Na}) \times 2000 \text{ lb} = 8.3 \text{ lbs./ton}$

58 lb manure ton

5. Total mean coliform bacteria colonies per 1000 lb. animal mass.

Table A-3
EXISTING ANNUAL NITROGEN MASS BALANCE

Animal Waste Type	Nitrogen Species (lbs)	Collected & Removed from site (lbs)	Remaining onsite* (lbs)	Subtotal
Horse ⁶	Nitrate-N			
	Ammonia-N			
	Organic-N	7,655	3,529	11,184
	Subtotal	7655	3,529	11,184
Cattle ⁷	Nitrate-N			
	Ammonia-N	1,360	29	1,389
	Organic-N	4,080	87	4,167
	Subtotal	5,440	116	5,556
TOTAL		13,095	3,645	16,740

6. Horses: $12 \text{ lb N/ton} \times 370 \text{ tons} \times .50 \text{ TS of removed manure} = 7,655 \text{ lbs collected \& removed}$
 $.29 \text{ TS of as-produced manure}$

$12 \text{ lb/ton} \times 932 \text{ tons} = 11,184 \text{ lbs total} - 7655 \text{ lbs collected and removed} = 3,529 \text{ lbs stored in soil}$

7. Cattle: $12 \text{ lb N/ton} \times 170 \text{ tons} \times .40 \text{ TS of removed manure} = 5,440 \text{ lbs collected \& removed}$
 $.15 \text{ TS of as produced manure}$

$0.086 \text{ lb. ammonia} \times 2,000 \text{ lb} = 3 \text{ lbs./ton} \times 170 \times .40 \text{ TS of removed manure} = 1,360 \text{ lbs ammonia}$
 $58 \text{ lb manure} \quad \text{ton} \quad .15 \text{ TS of as-produced manure}$
 $\text{Organic N} = \text{Total N} - \text{Ammonia N} = 5440 \text{ lb.} - 1360 \text{ lb.} = 4040 \text{ lb Organic N}$
 $12 \text{ lb/ton} \times 463 \text{ tons} = 5,556 \text{ lbs total} - 5440 \text{ lbs collected and removed} = 116 \text{ lbs stored in soil}$

Appendix B

Wetland Mapping Report (by Rincon Consultants)



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April 25, 2005
Project #: 04-56130

Bruce Douglas
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**Subject: Final Wetland Review and Constraints Summary, Two Winds Ranch,
Newbury Park Area, Ventura County, California**

Dear Mr. Douglas:

This letter summarizes the results of our wetland review and initial coordination with the U.S. Army Corps of Engineers (USACE) for the Two Winds Ranch Equestrian Center Site, located in the Newbury Park area in unincorporated Ventura County, California. The project site is a 20-acre parcel owned by the Mountain Recreation and Conservation Authority (MRCA) and is located along the south side of Portrero/Lynn Road, across from the Dos Vientos Ranch residential area (Thomas Guide pg. 555 Grid C,D 5; Figure 1). The project background, site conditions, methodology used in our analysis, and findings are discussed in detail below.

BACKGROUND

Two Winds Ranch is a public equestrian facility that offers horse boarding and rentals, riding lessons, and team penning. Approximately 160 head of livestock (horses and cattle) are present onsite. Two Winds Ranch was originally moved to its current location in 1995 on a temporary basis. The Conejo Open Space Conservation District (COSCA) currently subleases the land from the MRCA. The City is currently considering improving this public facility to allow its permanent operation in the existing location. As part of its evaluation, the City is preparing a water quality management study, environmental document, and improvement plan for use by the City in its decision-making process.

As part the project evaluation, the City has requested completion of a wetland delineation for the project site and its southern boundary to identify any constraints that must be considered when designing and subsequently using and maintaining future site improvements. This request is due in part to the presence of a USACE wetland mitigation area (mitigation area) located directly south of the site boundaries along the South Branch of the Arroyo Conejo Creek (also identified as Conejo Mountain Creek in USACE documentation). This offsite mitigation area was required by the USACE (Permit # 91-50540-LM) for past development of the Cohan Development Project (Tract 4862-2) located approximately 2 miles downstream. In 1997 the drainage was improved



from a narrow, shallow swale, containing seasonally saturated soil with a narrow strip of hydrophytic vegetation to a wider vegetatively diverse wetland area with associated riparian woodland. Per USACE, five years of mitigation monitoring has just been completed for the mitigation area.

SITE CONDITIONS

The site consists of an actively used equestrian facility with the typical corrals, arenas, wash racks, and storage and maintenance facilities (Figure 2). Two residences are also onsite. Two retention basins are located in the southeast corner. The site is heavily disturbed, with bare compacted soils typical within and around the arenas, stalls, and primary access routes. Limited landscaping (lawn, landscape trees) is also present within the facility.


The southern edge of the Two Winds Ranch is dominated by ruderal areas that are actively mowed and heavily disturbed (Figure 3). Non-native annual species dominate and include mustard, bromes, ragweed, fennel, and cocklebur, among others. Infrequent scattered mulefat shrubs are also present. Coyote brush and ruderal vegetation dominate the area approximately 25' wide just beyond the southern project boundary. The USACE mitigation area proper is approximately 25-50' south of the southern project boundary and is most easily identified from the project site by the scattered sycamore trees.

The site elevation ranges between approximately 870-900' above Mean Sea Level and gently slopes to the southeast. Soils on site are well-drained and consist of Gilroy clay loam, 9 to 15% slopes and Cropley clay, 2 to 9 % slopes.

METHODOLOGY

In preparation for our wetland delineation, we contacted Mark Towne, Manager for COSCA and Lisa Mangione, Biologist for USACE Los Angeles District during late September-early October 2004 to discuss background information on the USACE mitigation area to the south of the site, its relationship to the project site, and any constraints associated with it. We also reviewed the following documentation provided to us by Questa Engineering, Mr. Towne, and Ms. Mangione:

- Cohan Development Wetland Mitigation Monitoring Report for Lot 28 and Broome Ranch, Newbury Park, California: Forth Year [sic] (2002), David Magney Environmental Consulting, December 30, 2002
- Broome Ranch, Land Use Constraints Analysis, COSCA, November 8, 1995
- Conservation Easement Deed (Portion of Broome Ranch), November 13, 1997
- Existing Improvements Base Map, 2003
- Survey Base Layer, Peak Surveys, 2004
- Aerial Photograph, Barton Walters and Associates, April 2004
- Soil Survey, Ventura Area, California, USDA, Soil Conservation Service, 1970
- National Geographic, TOPO, topographic software, 2001.




We conducted a field reconnaissance on September 8, and October 13, 2004 to identify potential wetlands onsite or along the project boundary per the currently accepted 1987 USACE methodology. Hydrology, soils, and hydrophytic vegetation were considered, as well as the connectivity of isolated wetland areas to waters of the U.S. Based on guidance from Ms. Mangione, we limited our review onsite to an informal delineation because a formal delineation had already been conducted by the USACE for the adjacent mitigation area as part of the Section 404 of the Clean Water Act permit for the Cohan development.

FINDINGS

Onsite Wetlands. No wetlands potentially under USACE jurisdiction are present onsite. Four areas onsite had wetland characteristics, but all were the result of water runoff from human activities and the wetland characteristics are not anticipated to persist with cessation of the actions. Therefore we are of the opinion that these areas would not be considered jurisdictional by the USACE. The four areas identified include (please see Figure 3):

- 1) *Central Wash Rack:* Water draining from this wash rack has resulted in a small area 60' long X 2-5' wide of ponded water with dense wetland vegetation (sedge, cocklebur and bristly ox tongue). Although this area displays wetland hydrology, soils, and vegetation, it is isolated from the drainage south of the project and would cease to exist with cessation of the wash rack use.
- 2) *Leaking Pipe at Eastern Corral.* A leaking pipe located between horse corrals has resulted in a < 1 foot wide erosional channel approximately 50' long that ultimately dissipates. Although standing water was present, no wetland vegetation or soils were observed.
- 3) *Eastern Wash Rack:* Water draining from this wash rack has created a short erosional channel < 1' wide that dissipates within 20'. No wetland vegetation or soils are apparent.
- 4) *Detention Basins.* It is our understanding based on comments by the facility manager to Questa Engineering that the detention basins in the southeastern corner of the project capture storm flows which quickly drain. Sparse cocklebur and annual grasses are present within the basins and show signs of frequent mowing. A few scattered mulefat shrubs are adjacent to the basins. Although water apparently ponds in the basins during portions of the year, as noted by the cracked soils, these areas are actively maintained, and wetland vegetation is not present in significant abundance to meet USACE's criteria. These basins do not appear to have connectivity or meet the agency requirement to be considered USACE regulated wetlands.

Although these four areas are not anticipated to be wetlands under USACE jurisdiction, concurrence with the USACE is recommended. It should also be noted that CDFG may take jurisdiction over the wetland area that has formed behind the central wash rack as it provides habitat for local plants and wildlife. In the event this area would be disturbed by construction of future facility improvements, CDFG should be coordinated with to confirm their jurisdiction (or lack thereof). As the area is manmade, actively



maintained, and would disappear with cessation of wash rack use or more frequent maintenance, it should not be under CDFG jurisdiction.

Offsite Wetlands and Associated Constraints. The USACE wetland mitigation area located along the southern boundary project site consists of two components: 1) a core restoration area approximately 80' wide; and 2) a 50' wide buffer area encompassing the restoration area. An undulating strip of the buffer area approximately 20-30' wide overlaps most of the southern boundary (Figure 2). Portions of five pastures, two corrals and the edge of a detention basin are located within the buffer area.

Ms. Mangione, USACE identified that the 1997 conservation easement for the USACE mitigation project area is the regulating document that dictates what activities associated with the future improvements to Two Winds Ranch will be permitted within the USACE mitigation area. The conservation easement is between MRCA as the grantor and USACE as the grantee. Ms. Mangione has clarified that this easement has not been recorded to date as it is awaiting final California Department of Fish and Game (CDFG) approval.

Conservation Easement Restrictions. The purpose of the Conservation Easement is to limit activities within the USACE mitigation area that would "impair or interfere with the conservation values of the property." The *Covenants, Terms, Conditions, and Restrictions* section of the Conservation Easement identify the following key restrictions associated with the mitigation area that are intended to meet this goal. Please see the attached Conservation Easement for the full text. The specific measures referenced are identified in parentheses:

- Use of herbicides, rodenticides, weed abatement, and fire protection activities if they have the potential to adversely affect the mitigation area, are prohibited (3.1a).
- Vehicle use within the mitigation area is generally prohibited (3.2b).
- Deposition of soil, trash or other materials is prohibited (3.1e).
- Excavation, dredging or removing soil and associated materials is prohibited (3.1f).
- Altering the topography, vegetation, soils, or hydrology of the mitigation area (3.1g).
- Vegetation impacts, excluding for the purposes of fire breaks, or to control disease, is prohibited (3.1h).

The following activities are permitted in the buffer area and would apply to those portions of the property within it:

- Existing uses and structures associated with Two Winds Ranch (3.2a).
- Passive recreation use as long as it does not adversely affect the general topography and hydrology of the mitigation area (3.2b).
- Other uses requested in writing by the grantor and approved by USACE (3.2c).



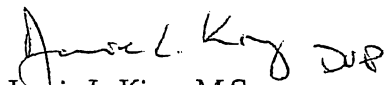
FURTHER INVESTIGATION

Early coordination with the USACE to discuss options for the Two Winds Ranch improvements, and subsequent use and maintenance within the buffer area of the USACE mitigation area, is strongly recommended. Review and approval of the components of the Improvement Plan within, or that would affect, the maintenance area will require approval by the USACE.

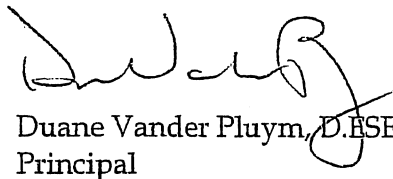
With your approval, we will be coordinating with USACE over the next two weeks to arrange a site visit to discuss these issues and receive concurrence that the four areas onsite that have wetland characteristics are not within USACE's jurisdiction. We anticipate submitting a subset of this letter to the USACE to facilitate their response. We will copy you on the submission and any USACE response.

We look forward to continuing to work with you on this project. Please contact me if you have any questions regarding this letter.

Sincerely,



Jamie L. King, M.S.
Program Manager-Special Projects

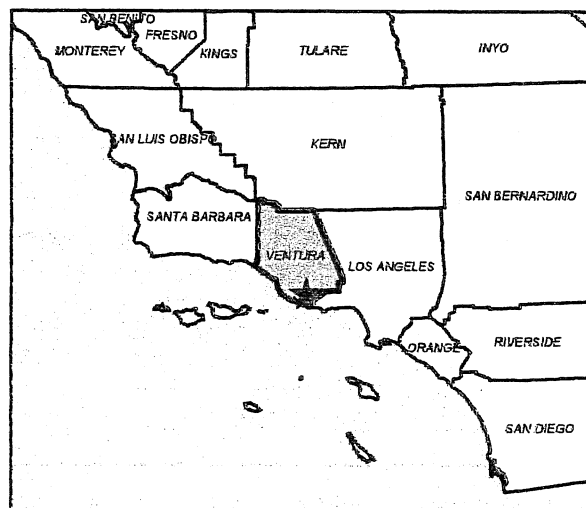


Duane Vander Pluym, D.ESE
Principal

Attachments: *Figure 1-Project Location*
 Figure 2-Project Site with Wetland Features
 Figure 3-Site Photos
 Conservation Easement

A detailed map of the Two Winds Ranch area in Ventura County, California. The map shows a network of roads including Edison Rd, Via Rio, Calle del Prado, Greenway Ave, Haverdale Ave, Kimble Dr, Bluefield Ave, Fairbrook Ave, Marwood Ave, Arroyo Conejo, Walker Ave, Brenna Ave, Remo Rd, Angeline St, Cypress Elementary School, Mountain Creek Dr, Whalton Creek, Camino del Sol, Via Las Brisas, Chandler del Mar, Via Vista, Via Grande, Via del Rancho, Via Don Luis, Via Casada, Lynn Rd, West Lynn Rd, Blackwood St, Oakwood St, Glenwood St, Onebound Ave, Church St, Paseo de Leon, Lynne Rd, Fire Station, Abbey Ct, Hartung Ct, La Grange Ave, Banyan Elementary School, Ruketa St, Big Sympore Canyon Rd, Santa Monica Mountains National Recreation Area, and Santa Anita State Park. A scale bar at the bottom indicates distances from 0 to 1 mile. A star marks the location of Two Winds Ranch near Potrero Rd. The map also shows various creeks like Whalton Creek and San Juan Creek, and several schools such as Cypress Elementary and Banyan Elementary.

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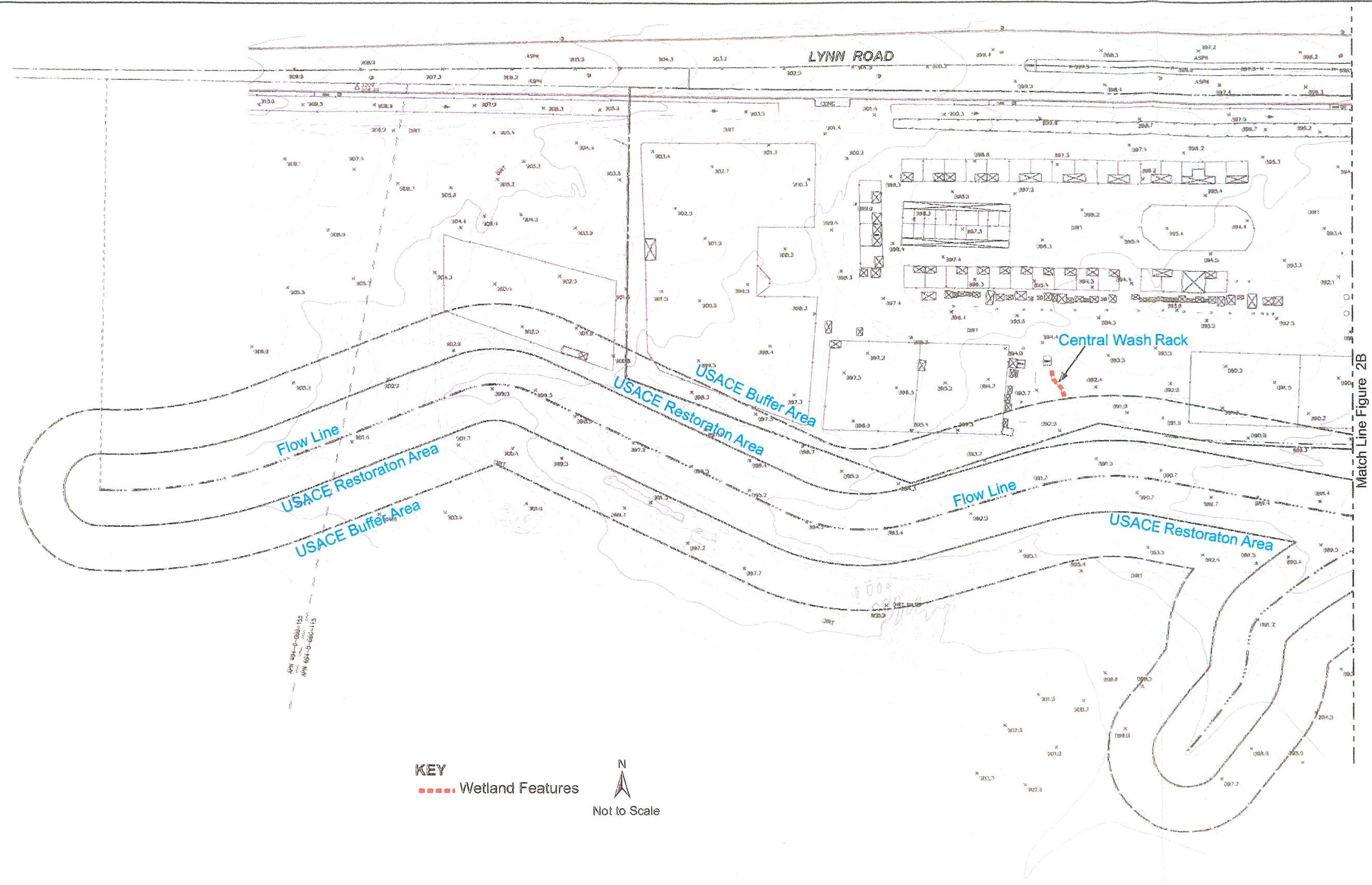


Project Location

Figure 1

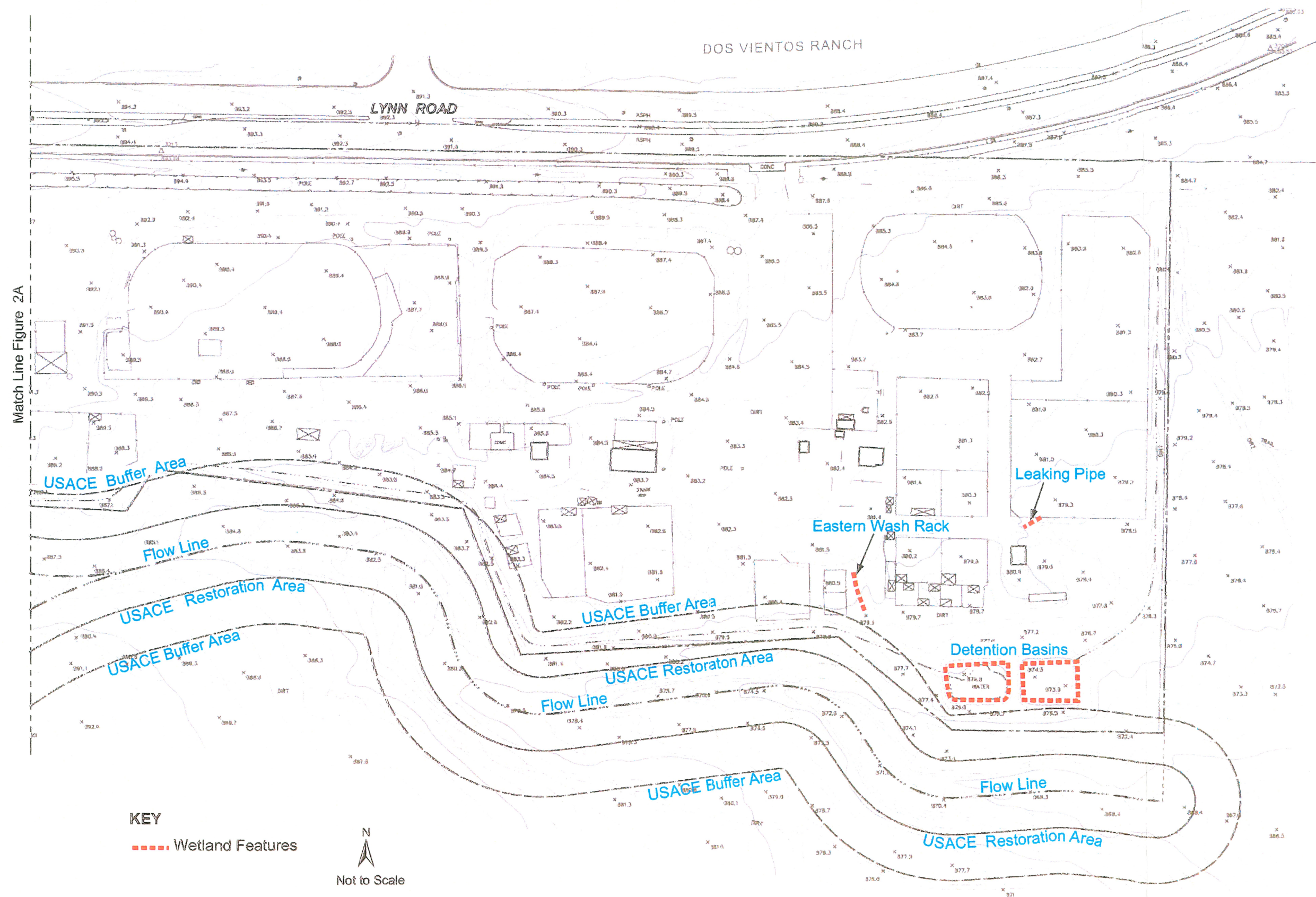
Questa Engineering Corporation





Project Site with Wetland Features

Figure 2A



Project Site with Wetland Features

Figure 2B



Photo 1 - Two Winds Ranch grounds.



Photo 2 - Highly disturbed ruderal vegetation typical along southern boundary of project site.

Site Photographs

Figure 3A

Questa Engineering Corporation





Photo 3 - Ponding water and wetland vegetation resulting from water runoff from the central wash rack.

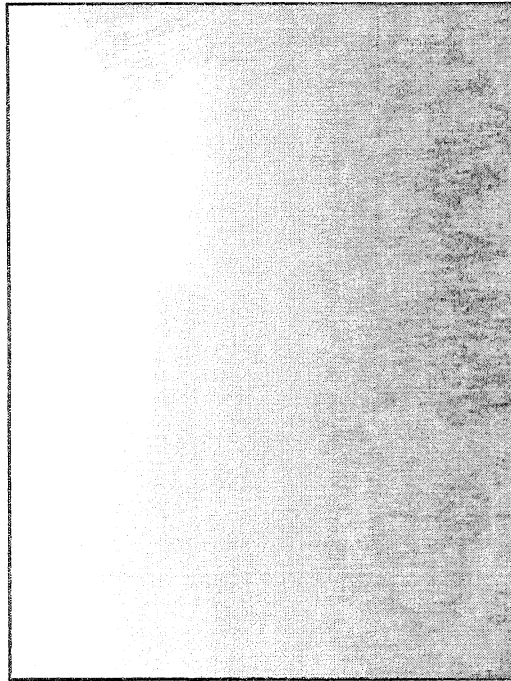


Photo 5 - View to the north of ruderal vegetation in one of the two detention basins.

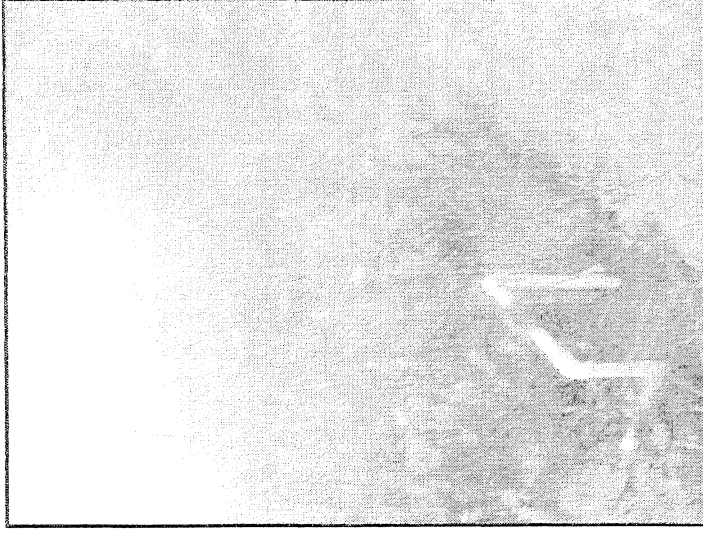


Photo 4 - Small erosional channel resulting from a pipe leak.

Site Photographs

97-153906

Rec Fee	55.00
CCP	20.00
Check	75.00

RECORDING REQUESTED BY:

Recorded
Official RecordsCounty of
VenturaRichard D. Dean
Recorder

3:03pm 14-Nov-97

DD 17

MAIL TO: MRCA

SEIC Ramirez Cyn Rd.
Malibu, CA
92265

Space Above Line for Recorder's Use Only

CONSERVATION EASEMENT DEED
(Portion of Broome Ranch)

THIS CONSERVATION EASEMENT DEED is made this 13 day of November, 1997, by Mountains Recreation Conservation Authority, (MRCA), ("Grantor") in favor of United States of America ("Grantee"), acting through the Army Corps of Engineers, (ACOE), with reference to the following facts:

R E C I T A L S

A. Grantor is the sole owner in fee simple of certain real property in the County of Ventura, State of California, more particularly described as:

A portion of the real property commonly known as the "Broome Ranch" legally described as set forth in Exhibit "A" which is attached hereto and incorporated herein by reference as set forth in full.

This Conservation Easement shall be over the portion of the Broome Ranch as set forth in Exhibit "B" which is attached hereto and incorporated herein by reference as set forth in full. The map which is attached hereto as Exhibit "C" reflects the final configuration and location of the mitigation site and the buffer zone. The "Property" herein shall mean the real property reflected on Exhibits "B and C."

B. Grantee believes that the Property possesses wildlife and habitat values (collectively, "conservation values") of great importance to Grantee, the people of the United States of America;

C. Grantee believes that the Property possesses a high quality habitat for riparian, and wetland species; and

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D. The ACOE has jurisdiction pursuant to the 33 U.S.C. Section 1344 and 33 CFR Part 320-330. The purpose of the Clean Water Act is to restore and maintain the chemical, physical and biological integrity of the Nation's waters. 33 U.S.C. 1251. This Conservation Easement is providing mitigation for impacts to "waters of the United States." and is granted to satisfy a special condition of Section 404 permit 91-505400-LM issued by the U.S. Army Corps of Engineers pursuant to its authority under the Federal Clean Water Act (33 U.S.C. 1344). Permit No. 91-505400-LM was issued to Mr. Albert Cohan, on January 21, 1997, and authorized grading and temporary water diversion activities in Conejo Mountain Creek and the South Branch Arroyo Conejo in association with the development of a mixed used residential and commercial subdivision in Tentative Tract 4862 (Cohan Development). The permit special condition required that Mr. Cohan provide compensatory mitigation through offsite replacement and enhancement through creation of approximately 4.0 acres of wetland riparian resources in permanent open space. In addition, the mitigation plan includes enhancement of a 0.7 acre of existing wetlands. A 50 foot buffer requirement has been added to ensure protection of the mitigation site from adjacent land uses.

*mitigation
for
Cohan
property*

E. This Conservation Easement is granted in consideration of certain land development entitlements issued by Grantee, the City of Thousand Oaks, and state and federal agencies, to land located downstream from the Broome Ranch commonly referred to as the Cohan property, and the Property provides mitigation for certain impacts to wetland and riparian habitat associated with such entitlements and the development of the Cohan property, namely Tract 4862-2, pursuant to California Department of Fish and Game Stream Bed Alteration Agreement No. 5-017-97 dated February 24, 1997, and U.S. Army Corps of Engineers Permit No. 91-505400-LM issued January 21, 1997, and the Mitigation Plan(s) created thereunder; and

COVENANTS, TERMS, CONDITIONS AND RESTRICTIONS

NOW, THEREFORE, in consideration of the above recitals and subject to the described covenants, terms, conditions, and restrictions contained herein, and pursuant to California law, including Civil Code Section 815, the Grantors hereby grant to the Grantee a conservation easement in perpetuity over the Property, as follows:

1. Purpose. The purpose of this Conservation Easement is to ensure the Property will be retained forever in a natural condition and to prevent any use of the Property that will impair or interfere with the conservation values of the Property. Grantor intends that this Conservation Easement will confine the use of the Property to such activities, including, without limitation, those involving the preservation and enhancement of native plant and animal species and their associated habitat in a manner consistent with the purposes of this Conservation Easement.

2. Grantee's Rights. To accomplish the purposes of this conservation Easement, Grantor hereby grants and conveys the following rights to Grantee by this Conservation Easement Deed:

- (a) To preserve and protect the natural resource and conservation values of the Property;
- (b) To enter upon the Property at reasonable times in order to monitor Grantor's compliance with and to otherwise enforce the terms of this Conservation Easement, and for scientific research and interpretive purposes by Grantee or its designees, provided that Grantee shall not unreasonably interfere with Grantor's use and quiet enjoyment of the Property;
- (c) To prevent any activity on or use of the Property that is inconsistent with the terms of this Conservation Easement and to require the restoration of such areas or features of the Property that may be damaged by any act, failure to act, or any use that is inconsistent with this Conservation Easement;
- (d) All mineral and water rights necessary to protect and to sustain the biological resources of the Property; and
- (e) All present and future development rights or other uses.

3. Uses of the Property

3.1 Prohibited Uses. Any activity on or use of the Property inconsistent with the purposes of this Conservation Easement is prohibited. Without limiting the generality of the foregoing, the following uses by Grantor, Grantor's agents, and third parties, are expressly prohibited:

- (a) Use of herbicides, rodenticide, or weed abatement activities, incompatible fire protection activities and any and all other uses which may adversely affect the purposes of this Conservation Easement.
- (b) Use of off-road vehicles or other means of motorized access except for vehicles which are required for work relating to construction and maintenance of the mitigation site.

(c) Grazing or surface entry for exploration or extraction of minerals;

(d) Erecting of any building, billboard, sign;

(e) Depositing of soil, trash, ashes, garbage, waste, bio-solids or any other material.

] Soil depo.

(f) Excavating, dredging or removing of loam, gravel, soil, rock, sand or other material.

] Soil movement

(g) Otherwise altering the general topography of the Property, including the building of roads, altering or removing vegetation, altering or removing soil or altering the hydrologic characteristics of the Property.

(h) Removing, destroying, or cutting of trees, shrubs or other vegetation, except as required by law for (1) fire breaks, (2) prevention or treatment of disease.

3.2 Permitted Uses The following uses are permitted within the buffer area:

(a) Existing uses and structures associated with the equestrian center located on Broome Ranch.

(b) Passive recreational activities which will not alter or remove vegetation, soil or modify the general topography or hydrologic characteristics of the Property such as hiking or birdwatching.

(c) Other uses requested in writing by the grantor or its successor in interest and which are approved in writing by the ACOE.

Option to modify

4. Grantor's Duties. Grantor shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities violate the terms of the easement and may degrade or harm the conservation values of the Property. In addition, Grantor shall undertake all reasonably necessary actions to perfect Grantee's rights under section 2 of this Conservation Easement, including but not limited to, Grantee's water rights.

5. Reserved Rights. Grantor reserves to itself, and to its personal

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representatives, heirs, successors, and assigns, all rights accruing from its ownership of the Property, including the right to engage in or to permit or invite others to engage in all uses of the Property that are consistent with the purposes of this Conservation Easement.

6. Grantee's Remedies. If Grantee determines that Grantor is in violation of the terms of this Conservation Easement or that a violation is threatened, Grantee shall give written notice to Grantor of such violation and demand in writing the cure of such violation. If Grantor fails to cure the violation within fifteen (15) days after receipt of said written notice and demand from Grantee, or said cure reasonably requires more than fifteen (15) days to complete and Grantor fails to begin the cure within fifteen (15) day period or fails to continue diligently to complete the cure, Grantee may bring an action at law or in equity in a court of competent jurisdiction to enforce compliance by Grantor with the terms of this Conservation Easement to recover any damages to which Grantee may be entitled for violation by Grantor of the terms of this Conservation Easement and may seek to enjoin the violation, and obtain a permanent injunction. A permanent injunction may be sought without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies, or for other equitable relief, including but not limited to, the restoration of the Property to the condition in which it existed prior to any such violation or injury. Without limiting Grantor's liability therefor, Grantee may apply any damages recovered to the cost of undertaking any corrective action on the Property.

Grantor
Violations

If Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the conservation values of the Property, Grantee may pursue its remedies under this paragraph without waiting for the period provided for cure to expire. Grantee's rights under this paragraph apply equally to actual or threatened violations of the terms of this Conservation Easement. Grantor agrees that Grantee's remedies at law for any violation of the terms of this Conservation Easement are inadequate and that Grantee shall be entitled to the injunctive relief described in this section, both prohibitive and mandatory; in addition to such other relief to which Grantee may be entitled, including specific performance of the terms of this Conservation Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Grantee's remedies described in this section shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity, including but not limited to, the remedies set forth in Civil Code Section 815, et. seq.

Sig.
Violations

If at any time in the future Grantor or any subsequent transferee uses or threatens to use such lands for purposes inconsistent with this Conservation Easement, notwithstanding Civil Code Section 815.7, the United States Department of

Justice, California Attorney General, or any entity or individual with a justifiable interest in the preservation of this Conservation Easement has standing as interested parties in any proceeding.

6.1 Costs of Enforcement. Any costs incurred by Grantee in successfully enforcing the terms of this Conservation Easement against Grantor, including, but not limited to, reasonable costs of suit, and reasonable attorney's fees, any costs of restoration necessitated by Grantor's violation or negligence under the terms of this Conservation Easement shall be borne by Grantor.

6.2 Grantee's Discretion. Enforcement of the terms of this Conservation Easement by Grantee and U.S. Army Corps of Engineers shall be at the discretion of Grantee acting through the U.S. Army Corps of Engineers and any forbearance by Grantee to exercise its rights under this Conservation Easement in the event of any breach of any term of this Conservation Easement by Grantor shall not be deemed or construed to be a waiver by Grantee of such term of any subsequent breach of the same or any other term of this Conservation Easement or of any of Grantee's rights under this Conservation Easement. No delay or omission by Grantee in the exercise of any right or remedy upon any breach by Grantor shall impair such right or remedy or be construed as a waiver.

6.3 Acts Beyond Grantor's Control. Nothing contained in this Conservation Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the Property resulting from causes beyond Grantor's control, including, without limitation, fire, flood, storm, and earth movement, or from any prudent action taken by Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Property resulting from such causes, or from acts of third parties beyond the control of Grantor, provided Grantor has taken all reasonable steps to prevent such acts. The Grantor or other responsible parties would be required to obtain Grantee's authorization to implement emergency measures that would result in a discharge of dredged or fill material into waters of the U.S. or the removal of living vegetation.

Emergency
Authorization

6.4 It is understood that the Section 404 Permit No. 91-505400-LM required the permittee to submit a Conservation Easement to the U.S. Army Corps of Engineers and that approval of this Conservation Easement shall entitle the U.S. Army Corps of Engineers to enforce its provision, and that non-compliance with this Conservation Easement may

be considered a violation of the Clean Water Act.

7. Access. This Conservation Easement does not convey a general right of access to the public.

8. Costs and Liabilities. Grantor or its successors in interest retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property.

8.1 Taxes. Grantor shall pay before delinquency all taxes, assessments, fees, and charges of whatever description levied on or assessed against the Property by competent authority (collectively "taxes"), including any taxes imposed upon, or incurred as a result of this Conservation Easement, and shall furnish Grantee with satisfactory evidence of payment upon request.

8.2 Hold Harmless. Grantor shall hold harmless, indemnify, and defend Grantee and its directors, officers, employees, agents, contractors, and representative (collective "Identified Parties") from and against all facilities, penalties, costs, losses, damages, expenses, causes of actions, claims demands or judgments, including without limitation, reasonable attorney's fees, arising from or in any way connected with: (1) injury to or the death of any person, or physical damages to any property, resulting from any act, omission, conditions, or other matter related to or occurring on or about the Property regardless of cause, unless due to the negligence of any of the Indemnified Parties; (2) the obligations specified in sections 4, 8 and 8.1; and (3) the existence or administration of this Conservation Easement.

8.3 Condemnation. The purposes of the Conservation Easement are presumed to be the best and most necessary public use as defined at Civil Procedure Code Section 1240.680 notwithstanding Civil Procedure Code Sections 1240.690 and 1240.700.

9. Assignment. This Conservation Easement is transferable and Grantee may assign its rights and obligations under this Conservation Easement.

10. Subsequent Transfers. Grantor agrees to incorporate the terms of this Conservation Easement in any deed or other legal instrument by which Grantor divests itself of any interest in all or a portion of the Property, including, without limitation, a leasehold interest. Grantor further agrees to give written notice to

Grantee of the intent to transfer of any interest at least fifteen (15) days prior to the date of such transfer. Grantee shall have the right to prevent subsequent transfer in which prospective subsequent claimants or transferees are not given notice of the covenants, terms, conditions and restrictions of this Conservation Easement. The failure of Grantor or Grantee to perform any act provided in this section shall not impair the validity of this Conservation Easement or limit its enforceability in any way.

11. Notices. Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor: Mountain Recreation Conservation Authority
5810 Ramirez Canyon Road
Malibu, CA 90265
Tel: (310) 589-3200
Fax: (310) 589-3207

To Grantee: U.S. Army Corps of Engineers
Los Angeles District
Regulatory Branch
Ventura Field Office
2151 Alessandro Drive, Ste. 255
Ventura, CA 93001
Attn: Ms. Lisa Mangione

or to such other address as either party shall designate by written notice to the other. Notice shall be deemed effective upon delivery in the case of personal delivery or in the case of delivery by first class mail, five (5) days after deposit into the United States mail.

12. Extinguishment. This Conservation Easement may be extinguished by Grantor, and Grantee, acting through the ACOE, only by mutual written agreement upon the request of either party only after the requesting party acquires and records a perpetual conservation easement in the name of a mutually agreeable party at an alternative location, which provides conservation values that satisfy the specific mitigation purposes of this Conservation Easement as stated in Paragraph E.

13. Amendment. This Conservation Easement may be amended by Grantor and Grantee acting through the U.S. Army Corps of Engineers, only by mutual written agreement. Any such amendment shall be consistent with the purposes of this Conservation Easement and except as provided in Section 12, shall not affect its

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perpetual duration. Any such amendment shall be recorded in the official records of Ventura County, State of California.

14. General Provisions.

- (a) Controlling Law. The interpretation and performance of this Conservation Easement shall be governed by the laws of the State of California.
- (b) Liberal Construction. Any general rule of construction to the contrary notwithstanding, this Conservation Easement shall be liberally construed in favor of the deed to effect the purpose of this Conservation Easement and the policy and purpose Civil Code Section 815. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purposes of this Conservation Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.
- (c) Severability. If a court of competent jurisdiction voids or invalidates on its face any provision of this Conservation Easement Deed, such action shall not affect the remainder of this Conservation Easement Deed. If a court of competent jurisdiction voids or invalidates the application of any provision of this Conservation Easement to Deed to a person or circumstances such actions shall not affect the application of the provision to other persons or circumstances.
- (d) Entire Agreement. This instrument sets forth the entire agreement of the parties with respect to the Conservation Easement and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Conservation Easement. No alteration or variation of this instrument shall be valid or binding unless contained in an amendment in accordance with Section 14.
- (e) No Forfeiture. Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.
- (f) Successors. The covenants, terms, conditions, and restrictions of this Conservation Easement Deed shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the

Property.

- (g) Termination of Rights and Obligations. A party's rights and obligations under this Conservation Easement terminate upon transfer of the party's interest in the Conservation Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.
- (h) Captions. The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.
- (i) Counterparts. The parties may execute this instrument in two or more counterparts which shall in the aggregate be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced the recorded counterpart shall be controlling.

IN WITNESS WHEREOF Grantor and Grantee have entered into this Conservation Easement the day and year first above written.

GRANTOR:

By:

Belenita V. Faustinos
Mountains Recreation
Conservation Authority

APPROVED AS TO FORM:

John D. A. Sker
Its: General Counsel

AGREED TO BY GRANTEE:

By:

(Signature)

11/15-2

(ACKNOWLEDGMENTS)

John C. Schubel
(Title)

U.S. Army Corps of Engineers
Los Angeles District

CERTIFICATE OF ACCEPTANCE

This is to certify that the interest in real property conveyed by the conservation Easement Deed by Mountain Recreation Conservation Authority, dated ~~October~~ 11/13, 1997 to the United States of America, grantee, acting by and through its Army Corps of Engineers, (ACOE) a governmental agency (under 33 USC section 1514), is hereby accepted by: the undersigned officer on behalf of the ACOE, pursuant to authority conferred by resolution of the _____, on

and 33 CFR Part 320-3.30.

GRANTEE:

Richard J. Schubel
UNITED STATES OF AMERICA, by and
through the ARMY CORPS OF ENGINEERS
By: Richard J. Schubel
Title: Chief, Regulatory Branch
Authorized Representative

Date: 11/13/97

cao:420-90:rls:acoemc.1

ALL-PURPOSE ACKNOWLEDGMENT

State of California

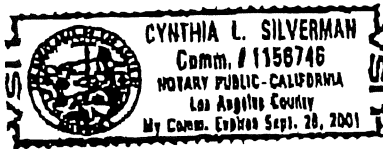
County of LOS ANGELES

} ss.

On NOVEMBER 13, 1997 before me, CYNTHIA L. SILVERMAN
(DATE) (NOTARY)

personally appeared Belinda V. Faustinos
SIGNOR(S)

- ☒ personally known to me - OR - ☐ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



WITNESS my hand and official seal.

Cynthia L. Silverman
NOTARY'S SIGNATURE

OPTIONAL INFORMATION

The information below is not required by law. However, it could prevent fraudulent attachment of this acknowledgment to an unauthorized document.

CAPACITY CLAIMED BY SIGNER (PRINCIPAL)

☐ INDIVIDUAL
☐ CORPORATE OFFICER
Deputy Executive Director
TITLE(S)

☐ PARTNER(S)
☐ ATTORNEY-IN-FACT
☐ TRUSTEE(S)
☐ GUARDIAN/CONSERVATOR
☐ OTHER: _____

SIGNER IS REPRESENTING:
NAME OF PERSON(S) OR ENTITY(IES)

DESCRIPTION OF ATTACHED DOCUMENT

Conservation Easement Deed
TITLE OR TYPE OF DOCUMENT

16
NUMBER OF PAGES

November 13, 1997
DATE OF DOCUMENT

OTHER

RIGHT THUMBPRINT
OF
SIGNER



EXHIBIT "A"

DESCRIPTION

PARCEL 1:

That portion of Lot 7 of the Broome Estate Ranch, in the County of Ventura, State of California, as shown on the Map thereof filed in the office of the County Clerk of said Ventura County, in the action of Thornhill Francis Broome vs. Frances Broome, et al., (Case No. 5181) described as follows:

Commencing at the Northeast corner of said lot 7; thence along the Northerly line of said lot 7, South $89^{\circ} 54'$ West 4455.12 feet to the true point of beginning; thence, continuing along said Northerly line,

1st: South $89^{\circ} 54'$ West 1161.60 feet to the beginning of a curve concave Westerly and having a radius of 1000.00 feet, a radial line to said point bears North $89^{\circ} 54'$ East; thence,

2nd: Southwesterly along said curve through a central angle of $77^{\circ} 36'$, arc distance of 1354.88 feet; thence,

3rd: Tangent to said curve, South $77^{\circ} 30'$ West 130.00 feet to the beginning of a tangent curve, concave Easterly and having a radius of 1075.00 feet; thence,

4th: Southwesterly, Southerly and Southeasterly along said curve through a central angle of $141^{\circ} 45'$, an arc distance of 2659.56 feet; thence,

5th: Tangent to said curve, South $65^{\circ} 15'$ East 1650.00 feet to the beginning of a tangent curve concave Southwesterly and having a radius of 1075.00 feet; thence,

6th: Southeasterly along said curve to a line that bears South $9^{\circ} 44'$ West from the true point of beginning; thence, along said line,

7th: North $9^{\circ} 44'$ East to the true point of beginning.

EXCEPT all oil, gas, hydrocarbon substances and other minerals of all kinds, whether like or unlike hydrocarbons, below a depth of 500 feet of the surface of the herein described property, without the right of surface entry.

PARCEL 2:

A portion of Lot 7 of the Broome Estate Ranch, in the County of Ventura, State of California, as shown on Map thereof filed in the office of the County Clerk of said Ventura County, in the action of Thornhill Francis Broome vs. Frances Broome, et al., (Case No. 5181), described as follows:

Beginning at the Northeast corner of said lot 7; thence, along the North line of said lot 7,

1st: South $89^{\circ} 54'$ West 5,616.81 feet to the beginning of a curve concave Northwesterly and having a radius of 1,000 feet, a radial to said curve being the North line of Lot 7; thence along said curve,

2nd: Southwesterly, an arc distance of 1,354.88 feet thru a central angle of $77^{\circ} 36'$; thence tangent to said curve,

3rd: South $77^{\circ} 30'$ West 130 feet to the beginning of a tangent curve concave Easterly

WKS-
24-1

EXHIBIT "A"
DESCRIPTION

and having a radius of 1,075 feet; thence, along said curve,

4th: Southwestery, Southerly and Southeastery an arc distance of 2,659.56 feet thru a central angle of 141°; thence,

5th: South 64° 15' East 1,650 feet to the beginning of a tangent curve concave Southwestery and having a radius of 1,075 feet; thence, along said curve,

6th: Southeastery; an arc distance of 440.91 feet thru a central angle of 23° 30'; thence along a radial from said curve,

7th: North 49° 15' East 101 feet to the beginning of a tangent curve, concave Southerly and having a radius of 500 feet; thence along said curve,

8th: Northeastery, Easterly and Southeastery an arc distance of 785.46 feet thru a central angle of 90° 00' to the beginning of a reverse curve, concave Northeastery and having a radius of 500 feet; thence along said curve,

9th: Southeastery, an arc distance of 445.06 feet thru a central angle of 51° 00'; thence,

10th: North 80° 15' East 700 feet to the beginning of a tangent curve, concave Southwestery and having a radius of 800 feet; thence, along said curve,

11th: Easterly, Southeastery and Southerly, an arc distance of 1,277.58 feet thru a central angle of 91° 30'; thence,

12th: South 0° 15' East 445 feet to the beginning of a tangent curve, concave Northeastery and having a radius of 1,200 feet; thence, along said curve,

13th: Southeastery, an arc distance of 840.96 feet thru a central angle of 70° 09' 10" to a point in the South line of said lot 7, a radial to said point bears South 49° 35' 50" West; thence, along said South line,

14th: North 89° 50' East 882.21 feet to the Southeast corner of said lot 7; thence, along the Easterly line of said lot 7,

15th: North 6° 44' East 6,257.60 feet to the point of beginning.

EXCEPT that portion thereof lying Westerly of the following line:

Beginning at a point on the Northerly line of said lot 7, distant thereon, South 89° 54' West 4,455.13 feet from the Northeastery corner of said lot 7; thence, South 9° 44' West to the Southerly line of said land.

ALSO EXCEPT all oil, gas, hydrocarbon substances and other minerals of all kinds, whether like or unlike hydrocarbons, below a depth of 500 feet of the surface of the herein described property, without the right of surface entry.

7/21/11
#1

EXHIBIT "B"

GENERAL DESCRIPTION

Broome Ranch Conservation Easement

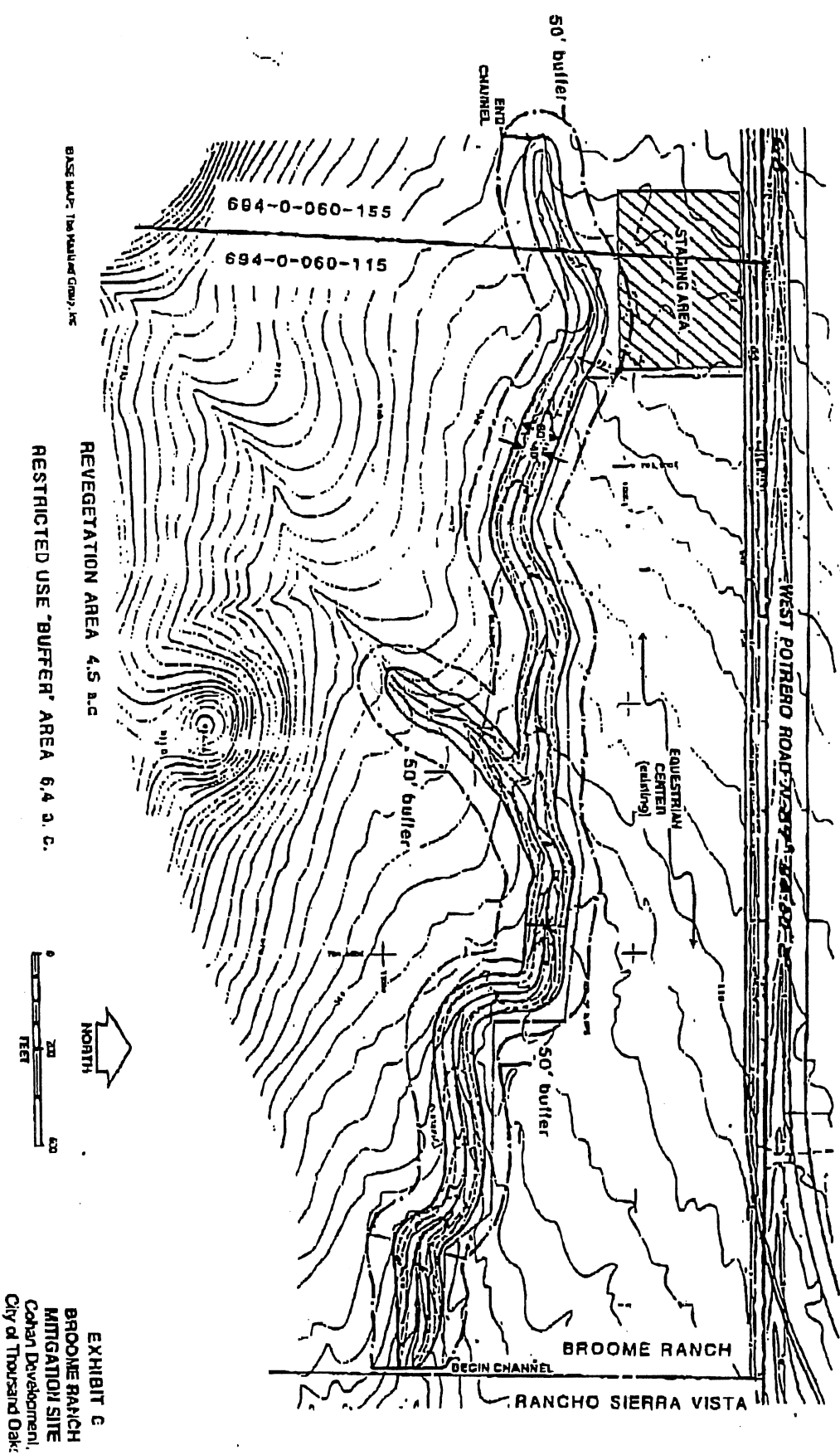
As described in the following manner; Conservation Easement includes portions of two recorded parcels of land (694-0-060-115) and (694-0-060-155), is curve-linear in shape, consisting of an area approximately 180 feet in width, extending for approximately 2800 feet in total length and encompassing land, of which, 4.5 acres are to be revegetated as an 80 foot-wide strip with an additional 50 foot-wide, restricted use "buffer zone", comprising approximately 6.4 acres, to be provided on both sides of the revegetated area. Conservation Easement starts approximately 6 feet from the eastern boundary line of Parcel No. 694-0-060-115, at a point approximately 600 feet south of Potrero Road and extends westward a total distance of approximately 2600 feet, terminating approximately 275 feet west of the eastern boundary of Parcel No. 694-0-060-155. Conservation Easement generally follows a meandering tributary drainage of the South Branch of Arroyo Conejo Creek watershed, extending in a westerly direction from a common, north/south trending property line separating property owned by the National Park Service (Rancho Sierra Vista) and the Mountains Recreation Conservation Authority (Broome Ranch); as depicted on attached Exhibit C. A more precise "Metes-and Bounds" description shall be substituted upon completion and final acceptance of the revegetated area by the U.S. Army Corps of Engineers.

Avail - yet?

file: C:CONSRV

57KJ-1
44-1

1-25-1



BASE MAP: THE HUNTER GROUP, INC.

REVEGETATION AREA 4.5 A.C.

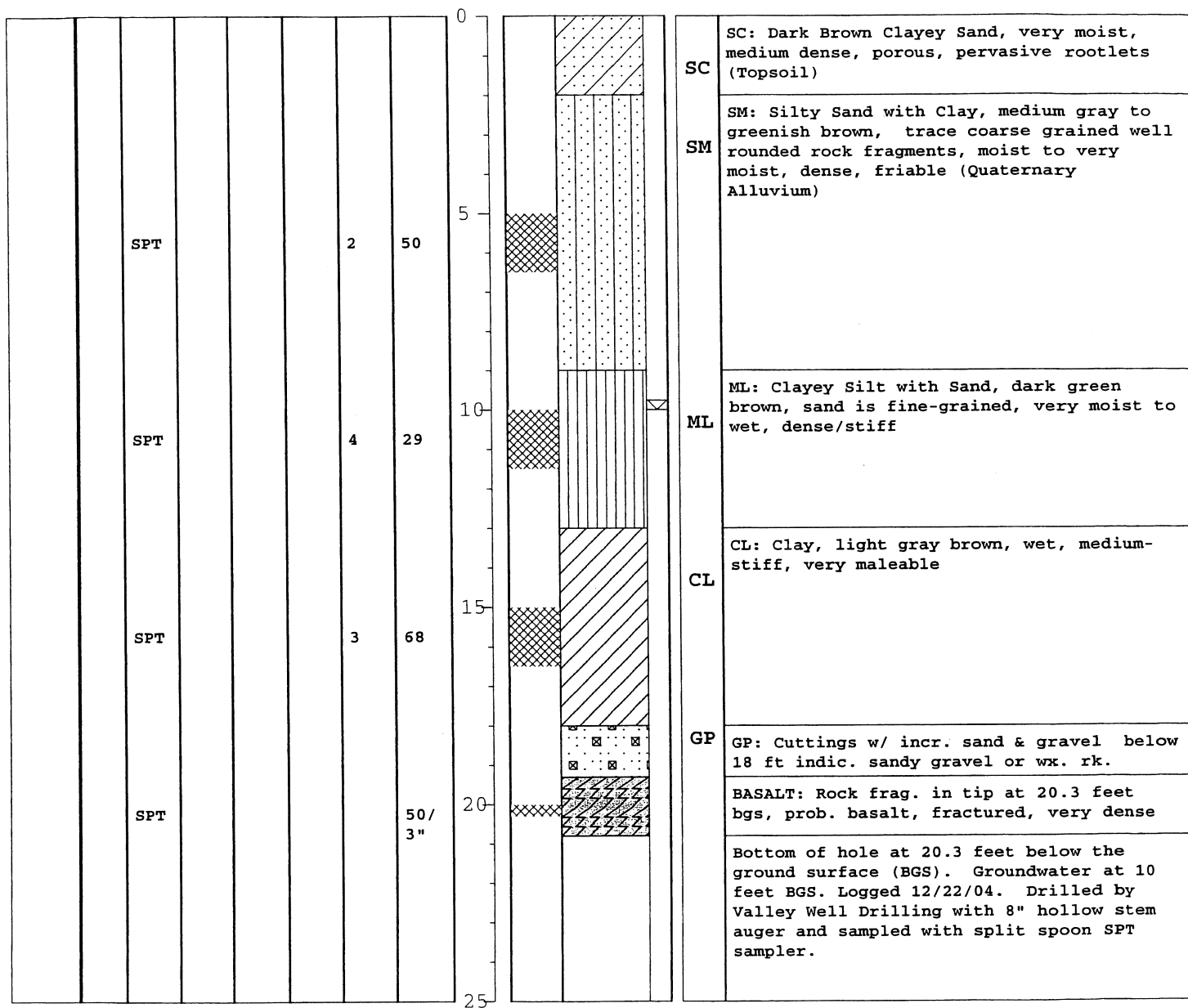
RESTRICTED USE 'BUFFER' AREA 6.4 A.C.

EXHIBIT C
BROOME RANCH
MITIGATION SITE
Cohen Development,
City of Thousand Oaks

Appendix C

Groundwater Quality Analysis

Well Construction
Torvane, tsf
Sampler Type
% Passing #200 Sieve
Dry Density, pcf
Moisture %
Penetrometer, tsf
Blows/Foot
(Converted to SPT N-value)
Sample Location
Graphical Symbol
Groundwater Depth
USCS Symbol
Lithologic Description



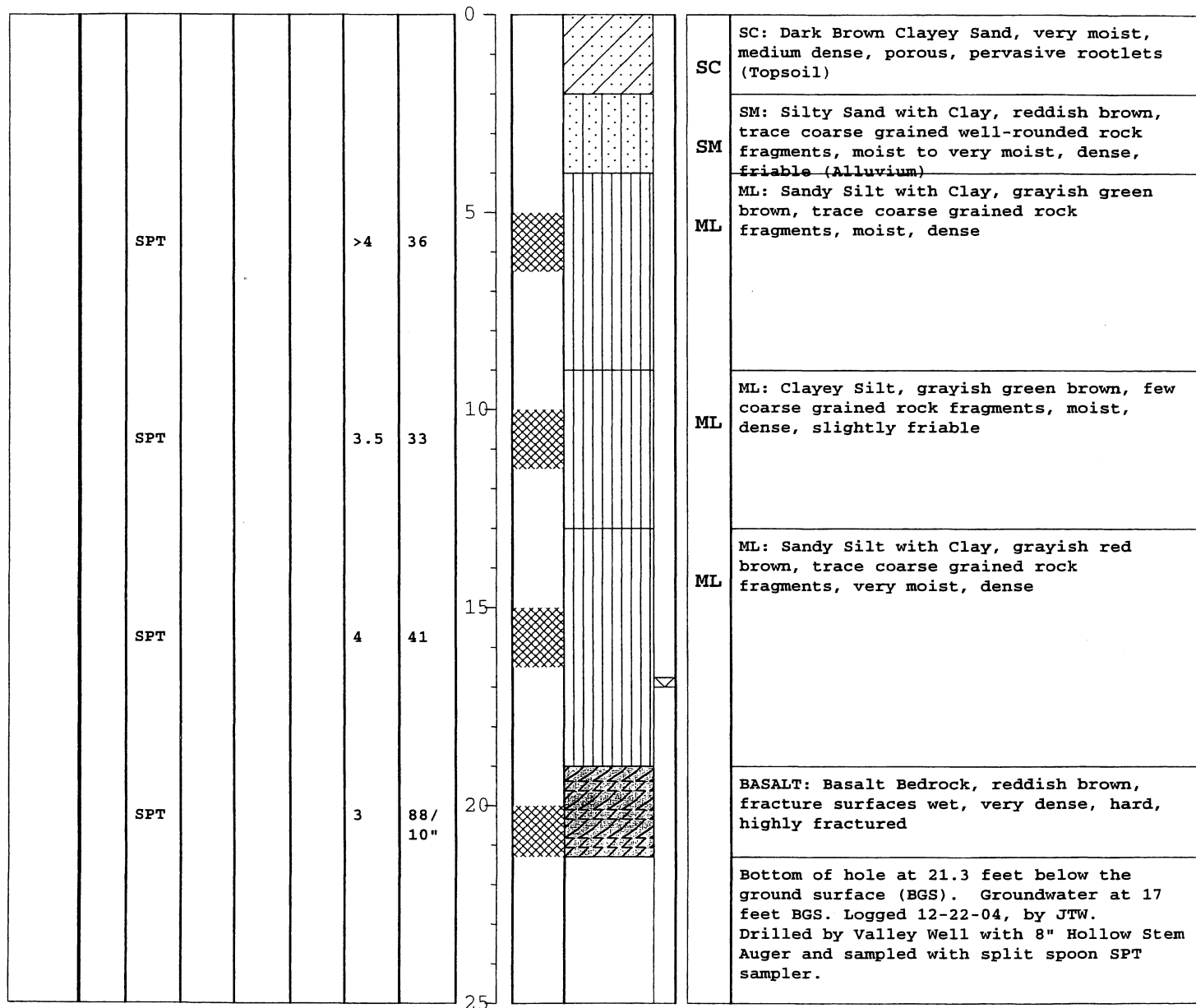
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LOG OF BOREHOLE MW-1
Two Winds Ranch
4801 W. Potrero Rd., Newbury Pk, CA

Figure
C-1

Well Construction
Torvane, tsf
Sampler Type
% Passing #200 Sieve
Dry Density, pcf
Moisture %
Penetrometer, tsf
Blows/Foot
*(Converted to SPT N-value)
Sample Location
Graphical Symbol
Groundwater Depth
USCS Symbol

Lithologic Description



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LOG OF BOREHOLE MW-2
Two Winds Ranch
4801 W. Potrero Rd., Newbury Pk, CA

Figure
C-2

MONITORING WELL CONSTRUCTION DIAGRAM

Well Name: MW-1

Project #: 240062

Contractor: Valley Well Drilling

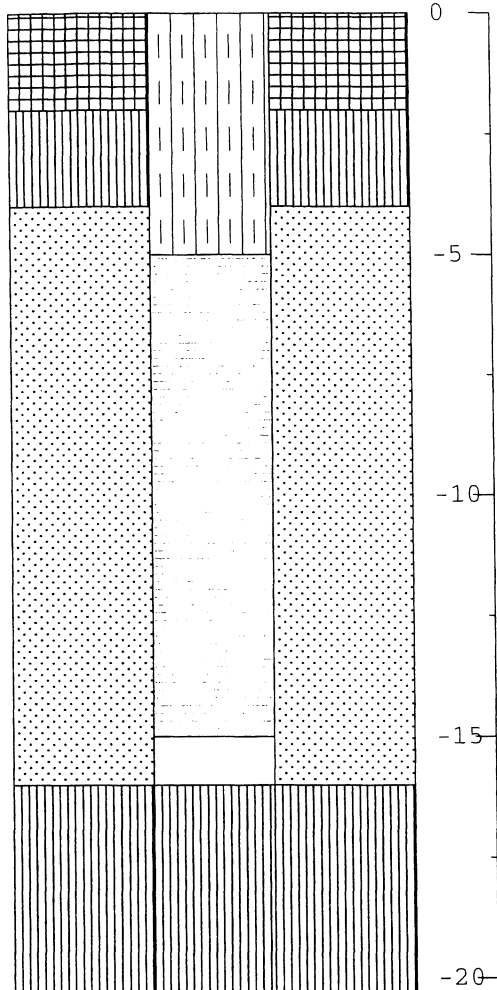
Project: Two Winds Ranch

Site Address: 4801 W. Potrero Rd., Newbury Park, CA

Date: 12/22/04

Depth, feet
GW Depth

Field Notes



RediMix Concrete Plug, Well Head not shown, steel standpipe to 3.67 feet above ground surface (ags) with locking L10 cap

Bentonite Seal - 2 to 3 foot, 2 bags of chips. 8.14 feet of solid PVC casing from 3.14' ags to 5' below ground surface (bgs)

#3 Monterey Silica Sand Filter Pack extending from approximately 4 feet to 16 feet bgs.

Screen is Schedule 40 PVC, 2-inch diameter, with 0.01 inch diameter slots. Slotted screen interval is 10' from 5 to 15 feet bgs.

Bottom 4.5 feet backfilled with bentonite

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Figure

C-3

MONITORING WELL CONSTRUCTION DIAGRAM

Well Name: MW-2

Project #: 240062

Contractor: Valley Well Drilling

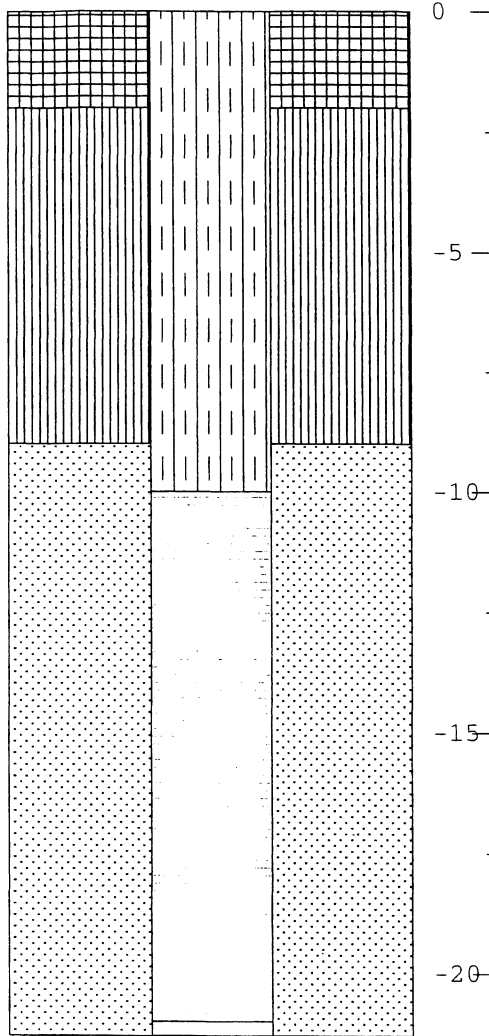
Project: Two Winds Ranch

Site Address: 4801 W. Potrero Rd., Newbury Park, CA

Date: 12/22/04

Depth, feet
GW Depth

Field Notes



RediMix Concrete Plug, Well Head not shown, steel standpipe to 3.24 feet above ground surface (ags) with locking L10 cap

Bentonite Seal - 7 to 8 foot, 4 bags of chips. Solid 2-inch diameter schedule 40 PVC casing extends from 2.7 feet ags to 10 feet below the ground surface (bgs).


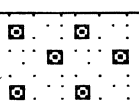
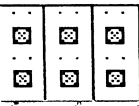

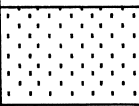

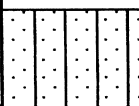
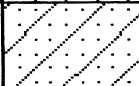

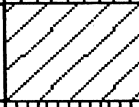


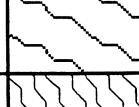


#3 Monterey Silica Sand Filter Pack extends approximately 12 feet.

Slotted Screen is Schedule 40 PVC, 2-inch diameter, with 0.01 inch diameter slots, approx. 11 feet from 10 feet to 21.3 feet bgs.

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Figure

C-4

MAJOR DIVISION					TYPICAL NAMES
COARSE GRAINED SOILS MORE THAN HALF IS LARGER THAN #200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN #4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW		Well graded Gravels, Gravel-Sand mixtures
			GP		Poorly graded Gravels, Gravel-Sand mixtures
		GRAVELS WITH OVER 12% FINES	GM		Silty Gravels, poorly graded, Gravel-Sand-Silt mixtures
			GC		Clayey Gravels, poorly graded Gravel-Sand-Clay mixtures
	SANDS MORE THAN HALF COARSE FRACTION IS LARGER THAN #4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW		Well graded Sands, Gravelly-Sands
			SP		Poorly graded Sands, Gravelly-Sands
		SANDS WITH OVER 12% FINES	SM		Silty Sands, poorly graded, Sand-Silt mixtures
			SC		Clayey Sands, poorly graded, Sand-Clay mixtures
FINE GRAINED SOILS MORE THAN HALF IS SMALLER THAN #200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML		Inorganic Silts and very fine Sands, rock flour, Silty or Clayey fine Sands, or Clayey-Silts with slight plasticity
			CL		Inorganic Clays of low to medium plasticity, Gravelly Clays, Sandy Clays, Silty Clays, lean Clays
			OL		Organic Clays and Organic Silty Clays of low plasticity
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH		Inorganic Silts, micaceous or diatomaceous fine Sandy or Silty Soils, elastic Silts
			CH		Inorganic Clays of high plasticity, fat Clays
			OH		Organic Clays of medium to high plasticity, organic Silts
HIGHLY ORGANIC SOILS			Pt		Peat and other highly organic soils

BOH	Bottom of hole	140 #	140 pound hammer dropped 30"
SPT	Standard Penetration Test Sampler (1.0" inside diameter)	70 #	70 pound hammer dropped 30"
CA MOD	California Modified Sampler (S & H) (2.5" inside diameter)	LL, PL, PI	Liquid Limit, Plastic Limit, Plasticity Index

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UNIFIED SOIL CLASSIFICATION SYSTEM
AND KEY TO ABBREVIATIONS

Figure

C-5

GEOTECHNICAL BORING LOG

Project Name: Two Winds Ranch						Borehole No: MW-3			
Project Number: 240062						Sheet 1 of 1			
Project Location: 4801 W. Potrero Road, Newbury Park,									
Drill Rig: B-61 Hollow sstem auger									
Boring Diameter: 8-inch									
Logged By: jtw						Date Drilled: 5-23-05 to			

Depth (ft)	Sample Type	Sample No.	Penetration Resistance, Blow/6 in.	Geologic Attitudes	Graphic Log	USCS Class.	DESCRIPTION	Moisture Content %	Dry Weight (pcf)	Other Tests and Remarks
5	■		23/50/6"			ML	Alluvium (Qal): Dark brown clayey silt, slightly moist, medium dense, trace organics and track organics			
						ML	Change to Olive green brown clayey silt			SPT penetrometer 3.25 tsf
10	■		13/37/50			ML	Mottled red brown and gray brown clayey silt.			SPT penetrometer 3.75 tsf
15	■		22/39/50			ML	Layers of red brown sandy silt/clayey sand Water at 15.0 feet, increase in sand content			SPT penetrometer 3.0 tsf
20	■		29/50/3"			ML	Red brown sandy silt, wet, slightly dense			SPT penetrometer 1.5 tsf
25	■		22/50/3"			ML	Red brown sandy clay, wet, medium dense			SPT penetrometer 1.5 tsf
30							Bottom of boring at 25.75 feet below the ground surface (bgs). Groundwater at 15.0 feet bgs. Logged 5-24-05 by JTW. Drilled by Valley Well with 8-inch hollow stem auger and sampled with Split spoon SPT sampler.			

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Ring

SPT Sample

Bag

Ring/Bag

SPT/Bag

Ground Water

GEOTECHNICAL BORING LOG

Project Name: Two Winds Ranch						Borehole No: MW-4			
Project Number: 240062						Sheet 1 of 1			
Project Location: 4801 W. Potrero Road, Newbury Park,									
Drill Rig: B-61 Hollow stem auger									
Boring Diameter: 8-inch									
Logged By: jtw						Date Drilled: 5-23-05 to			

Depth (ft)	Sample Type	Sample No.	Penetration Resistance, Blow/6 in.	Geologic Attitudes	Graphic Log	USCS Class.	DESCRIPTION	Moisture Content %	Dry Weight (pcf)	Other Tests and Remarks
5	■		17/23/33				Alluvium (Qal): Dark red brown clayey sand, slightly moist, medium dense			SPT sample penetrometer 3.0 tsf
10							scattered rock at 10 feet, move sample to 12 feet Water at 10.6 feet			
	■		50/4"				rock in tip of sample at 12 feet			SPT sample penetrometer 1.4 tsf
15	■		50/6"				Basalt: Basalt bedrock, reddish brown, fracture surfaces wet, very dense, hard, highly fractured			SPT sample penetrometer 1.25 tsf
20							Bottom of boring at 15.5 feet below the ground surface (bgs). Groundwater at 10.6 feet bgs. Logged 5-23-05 by JTW. Drilled by Valley Well with 8-inch hollow stem auger and sampled with Split spoon SPT sampler.			
25										
30										

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Ring

SPT Sample

Bag

Ring/Bag

SPT/Bag

Ground Water

GEOTECHNICAL BORING LOG

Project Name: Two Winds Ranch						Borehole No: MW-5		
Project Number: 240062						Sheet 1 of 1		
Project Location: 4801 W. Potrero Road, Newbury Park,								
Drill Rig: B-61 Hollow stem auger								
Boring Diameter: 8-inch								
Logged By: jtw						Date Drilled: 5-24-05 to		

Depth (ft)	Sample Type	Sample No.	Penetration Resistance, Blow/6 in.	Geologic Attitudes	Graphic Log	USCS Class.	DESCRIPTION	Moisture Content %	Dry Weight (pcf)	Other Tests and Remarks
5	▨		24/50/5"				Alluvium (Qal): Dark red brown and light brown sandy clay and silt, slightly moist, medium dense			SPT sample penetrometer 2.25 tsf
10	▨		20/40/50							SPT sample penetrometer 4.0 tsf
15	▨		28/50/2"				Groundwater at 14.7'			
	▨						Basalt: Basalt bedrock, reddish brown, fracture surfaces wet, very dense, hard, highly fractured			SPT sample penetrometer 4.0 tsf
20	▨		50/2"				Basalt: Basalt Bedrock, reddish brown, fracture surfaces wet, very dense, hard, highly fractured			SPT sample penetrometer 4.0 + tsf
25							Bottom of boring at 20.2 feet below the ground surface (bgs). Groundwater at 14.7 feet bgs. Logged 5-24-05 by JTW. Drilled by Valley Well with 8-inch hollow stem auger and sampled with Split spoon SPT sampler.			
30										

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Ring

Ring/Bag

SPT Sample

SPT/Bag

Bag

Ground Water

GEOTECHNICAL BORING LOG

Project Name: Two Winds Ranch						Borehole No: MW-6			
Project Number: 240062						Sheet 1 of 1			
Project Location: 4801 W. Potrero Road, Newbury Park,									
Drill Rig: B-61 Hollow s stem auger									
Boring Diameter: 8-inch									
Logged By: jtw						Date Drilled: 5-24-05 to			

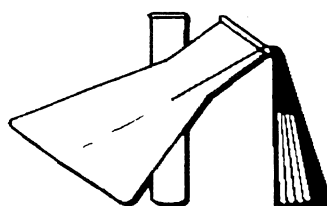
Depth (ft)	Sample Type	Sample No.	Penetration Resistance, Blow/6 in.	Geologic Attitudes	Graphic Log	USCS Class.	DESCRIPTION	Moisture Content %	Dry Weight (pcf)	Other Tests and Remarks
5	[Hatched Box]		25/43/48				Alluvium (Qal): Olive green brown sandy clay, moist medium dense Basalt: Basalt bedrock, reddish brown, fracture surfaces wet, very dense, hard, highly fractured			SPT sample penetrometer 3.25 tsf
10	[Hatched Box]		50/2"							SPT sample penetrometer 4.0+ tsf
15							Bottom of boring at 10.5 feet below the ground surface (bgs). Groundwater at 5 feet bgs, Logged 5-24-05 by jtw. Drilled by Valley Well with 8-inch hollow stem auger and sampled split spoon			
20										
25										
30										

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Ring
 Ring/Bag

SPT Sample
 SPT/Bag

Bag
 Ground Water



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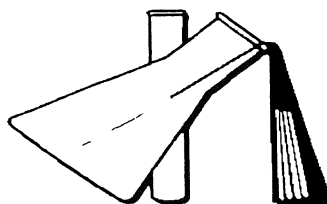
Attention: Bruce Douglas
Report Date: 17-Jan-05 13:38
Subject: Two Winds Ranch

Project/P.O.#: [none]

PARAMETER	METHOD	QC BATCH	REPORTING	ANALYZED (ANALYST)	RESULT	NOTE
DRAFT: TW1-1 (Sample I.D.# : 0501054-01) Collected: 05-Jan-05 By J.Wilson						
Nitrate as N	EPA 353.2	AA50613	0.01	06-Jan-05 (MG)	13.4 mg/l	
Total Dissolved Solids	EPA 160.1	AA50605	5	06-Jan-05 (MS)	1000 mg/l	
DRAFT: TW1-3 (Sample I.D.# : 0501054-02) Collected: 05-Jan-05 By J.Wilson						
Total Coliforms	SM 9221E	AA50518	2	09-Jan-05 (MS)	23 MPN/100 ml	
E. Coli	SM 9221E	AA50518	2	09-Jan-05 (MS)	< 2 MPN/100 ml	
Fecal Coliforms	SM 9221E	AA50518	2	09-Jan-05 (MS)	4 MPN/100 ml	
DRAFT: TW1-2 (Sample I.D.# : 0501054-03) Collected: 05-Jan-05 By J.Wilson						
Nitrate as N	EPA 353.2	AA50613	0.01	06-Jan-05 (MG)	13.5 mg/l	
Total Dissolved Solids	EPA 160.1	AA50605	5	06-Jan-05 (MS)	804 mg/l	
DRAFT: TW1-4 (Sample I.D.# : 0501054-04) Collected: 05-Jan-05 By J.Wilson						
Total Coliforms	SM 9221E	AA50518	2	09-Jan-05 (MS)	4 MPN/100 ml	
E. Coli	SM 9221E	AA50518	2	09-Jan-05 (MS)	< 2 MPN/100 ml	
Fecal Coliforms	SM 9221E	AA50518	2	09-Jan-05 (MS)	2 MPN/100 ml	
DRAFT: TW2-1 (Sample I.D.# : 0501055-01) Collected: 05-Jan-05 By J.Wilson						
Nitrate as N	EPA 353.2	AA50613	0.01	06-Jan-05 (MG)	11.3 mg/l	
Total Dissolved Solids	EPA 160.1	AA50605	5	06-Jan-05 (MS)	1000 mg/l	
DRAFT: TW2-3 (Sample I.D.# : 0501055-02) Collected: 05-Jan-05 By J.Wilson						
Total Coliforms	SM 9221E	AA50518	2	09-Jan-05 (MS)	7 MPN/100 ml	
E. Coli	SM 9221E	AA50518	2	09-Jan-05 (MS)	< 2 MPN/100 ml	
Fecal Coliforms	SM 9221E	AA50518	2	09-Jan-05 (MS)	< 2 MPN/100 ml	
DRAFT: TW2-2 (Sample I.D.# : 0501055-03) Collected: 05-Jan-05 By J.Wilson						
Nitrate as N	EPA 353.2	AA50613	0.01	06-Jan-05 (MG)	8.64 mg/l	

Respectfully Submitted,

DRAFT REPORT 1/17/2005
DATA SUBJECT TO CHANGE



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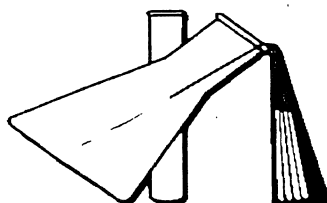
Attention: Bruce Douglas
Report Date: 17-Jan-05 13:38
Subject: Two Winds Ranch

Project/P.O.#: [none]

PARAMETER	METHOD	QC BATCH	REPORTIN G	ANALYZED (ANALYST)	RESULT	NOTE
DRAFT: TW2-2 (Sample I.D.# : 0501055-03) Collected: 05-Jan-05 By J.Wilson						
Total Dissolved Solids	EPA 160.1	AA50605	5	06-Jan-05 (MS)	916 mg/l	
DRAFT: TW2-4 (Sample I.D.# : 0501055-04) Collected: 05-Jan-05 By J.Wilson						
Total Coliforms	SM 9221E	AA50518	2	09-Jan-05 (MS)	30 MPN/100 ml	
E. Coli	SM 9221E	AA50518	2	09-Jan-05 (MS)	< 2 MPN/100 ml	
Fecal Coliforms	SM 9221E	AA50518	2	09-Jan-05 (MS)	< 2 MPN/100 ml	

Respectfully Submitted,

DRAFT REPORT 1/17/2005
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Attention: Bruce Douglas
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Project/P.O.#: [none]

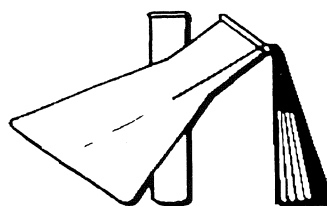
DRAFT: General Inorganic Nonmetallic Chemistry by Standard Methods/EPA Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
Batch AA50613 - General Preparation										
Blank (AA50613-BLK1)				Prepared & Analyzed: 06-Jan-05						
Nitrate as N	ND	0.01	mg/l							
LCS (AA50613-BS1)				Prepared & Analyzed: 06-Jan-05						
Nitrate as N	1.08	0.01	mg/l	1.00		108	80-120			
Duplicate (AA50613-DUP1)				Source: 0501066-02 Prepared & Analyzed: 06-Jan-05						
Nitrate as N	0.140	0.01	mg/l		0.14			0.00	20	
Matrix Spike (AA50613-MS1)				Source: 0501066-02 Prepared & Analyzed: 06-Jan-05						
Nitrate as N	1.09	0.01	mg/l	1.00	0.14	95.0	75-125			
Matrix Spike Dup (AA50613-MSD1)				Source: 0501066-02 Prepared & Analyzed: 06-Jan-05						
Nitrate as N	1.14	0.01	mg/l	1.00	0.14	100	75-125	4.48	20	

Respectfully Submitted,

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1/17/2005



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Page 4 of 5

Attention: Bruce Douglas
Report Date: 17-Jan-05 13:38
Subject: Two Winds Ranch

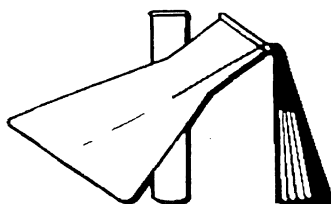
Project/P.O.#: [none]

DRAFT: General Physical Chemistry by Standard Methods/EPA Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
Batch AA50605 - General Preparation										
Blank (AA50605-BLK1)				Prepared & Analyzed: 06-Jan-05						
Total Dissolved Solids	ND	5	mg/l							
LCS (AA50605-BS1)				Prepared & Analyzed: 06-Jan-05						
Total Dissolved Solids	856	5	mg/l	800		107	80-120			
Duplicate (AA50605-DUP1)				Source: 0501052-01 Prepared & Analyzed: 06-Jan-05						
Total Dissolved Solids	548	5	mg/l		592			7.72	20	

Respectfully Submitted,

DRAFT REPORT 1/17/2005
DATA SUBJECT TO CHANGE



PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Questa Engineering Corporation**
319 East Sola Street Suite B
Santa Barbara CA, 93101

Page 5 of 5

Attention: Bruce Douglas
Report Date: 17-Jan-05 13:38
Subject: Two Winds Ranch

Project/P.O.#: [none]

DRAFT: Microbiological Parameters by APHA Standard Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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Batch AA50518 - general micro

Blank (AA50518-BLK1)

Prepared: 05-Jan-05 Analyzed: 09-Jan-05

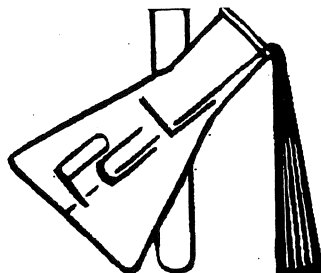
Total Coliforms	ND		2MPN/100 ml							
E. Coli	ND		2							
Fecal Coliforms	ND		2							

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis

Respectfully Submitted,

DRAFT REPORT 1/17/2005
DATA SUBJECT TO CHANGE



PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Questa Engineering Corporation**
319 East Sola Street Suite B
Santa Barbara CA, 93101

Page 1 of 1

Attention: **Bruce Douglas**
Report Date: **29-Jun-05 07:30**
Subject: **Two Winds Ranch**

Project/P.O.#: [none]

PARAMETER	METHOD	QC BATCH	REPORTING LIMIT	ANALYZED (ANALYST)	RESULT	NOTE
TW4 - 01 (Sample I.D.# : 0506306-01) Collected: 22-Jun-05 By Customer						
Nitrate as N	EPA 353.2	AF52306	0.01	24-Jun-05 (CA)	46.4 mg/l	
Total Dissolved Solids	EPA 160.1	AF52304	5	23-Jun-05 (CW)	796 mg/l	
TW4 - 02 (Sample I.D.# : 0506306-02) Collected: 22-Jun-05 By Customer						
Total Coliforms	SM 9221E	AF52223	2	25-Jun-05 (JV)	22 MPN/100 ml	
E. Coli	SM 9221E	AF52223	2	25-Jun-05 (JV)	2 MPN/100 ml	
Fecal Coliforms	SM 9221E	AF52223	2	25-Jun-05 (JV)	2 MPN/100 ml	
TW4 - 03 (Sample I.D.# : 0506306-03) Collected: 22-Jun-05 By Customer						
Nitrate as N	EPA 353.2	AF52306	0.01	24-Jun-05 (CA)	48.6 mg/l	
Total Dissolved Solids	EPA 160.1	AF52304	5	23-Jun-05 (CW)	744 mg/l	
TW4 - 04 (Sample I.D.# : 0506306-04) Collected: 22-Jun-05 By Customer						
Total Coliforms	SM 9221E	AF52223	2	25-Jun-05 (JV)	130 MPN/100 ml	
E. Coli	SM 9221E	AF52223	2	25-Jun-05 (JV)	2 MPN/100 ml	
Fecal Coliforms	SM 9221E	AF52223	2	25-Jun-05 (JV)	2 MPN/100 ml	

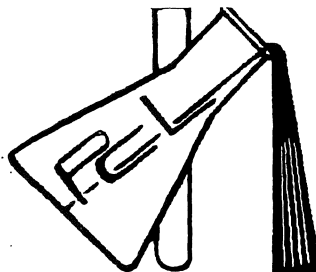
Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis

Respectfully Submitted,

Pat Brueckner
Laboratory Director

7/7/05



PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Questa Engineering Corporation**
319 East Sola Street Suite B
Santa Barbara CA, 93101

Page 1 of 1

Attention: **Bruce Douglas**
Report Date: **29-Jun-05 07:30**
Subject: **Two Winds Ranch**

Project/P.O.#: [none]

PARAMETER	METHOD	QC BATCH	REPORTING LIMIT	ANALYZED (ANALYST)	RESULT	NOTE
TW3 - 01 (Sample I.D.# : 0506305-01) Collected: 22-Jun-05 By Customer						
Nitrate as N	EPA 353.2	AF52306	0.01	24-Jun-05 (CA)	4.46 mg/l	
Total Dissolved Solids	EPA 160.1	AF52304	5	23-Jun-05 (CW)	648 mg/l	
TW3 - 02 (Sample I.D.# : 0506305-02) Collected: 22-Jun-05 By Customer						
Total Coliforms	SM 9221E	AF52223	2	26-Jun-05 (JV)	80 MPN/100 ml	
E. Coli	SM 9221E	AF52223	2	26-Jun-05 (JV)	< 2 MPN/100 ml	
Fecal Coliforms	SM 9221E	AF52223	2	26-Jun-05 (JV)	2 MPN/100 ml	
TW3 - 03 (Sample I.D.# : 0506305-03) Collected: 22-Jun-05 By Customer						
Nitrate as N	EPA 353.2	AF52306	0.01	24-Jun-05 (CA)	3.32 mg/l	
Total Dissolved Solids	EPA 160.1	AF52304	5	23-Jun-05 (CW)	578 mg/l	
TW3 - 04 (Sample I.D.# : 0506305-04) Collected: 22-Jun-05 By Customer						
Total Coliforms	SM 9221E	AF52223	2	25-Jun-05 (JV)	22 MPN/100 ml	
E. Coli	SM 9221E	AF52223	2	25-Jun-05 (JV)	< 2 MPN/100 ml	
Fecal Coliforms	SM 9221E	AF52223	2	25-Jun-05 (JV)	< 2 MPN/100 ml	

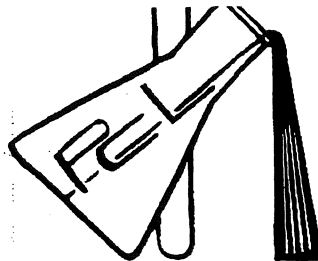
Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis

Respectfully Submitted,

Pat Brueckner
Laboratory Director

7/7/05



PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Questa Engineering Corporation**
319 East Sola Street Suite B
Santa Barbara CA, 93101

Page 1 of 1

Attention: **Bruce Douglas**
Report Date: **29-Jun-05 07:31**
Subject: **Two Winds Ranch**

Project/P.O.#: [none]

PARAMETER	METHOD	QC BATCH	REPORTING LIMIT	ANALYZED (ANALYST)		RESULT	NOTE
TW1 - 1 (Sample I.D.# : 0506312-01) Collected: 23-Jun-05 By JTW							
Nitrate as N	EPA 353.2	AF52409	0.01	24-Jun-05 (CA)	<	0.01 mg/l	
Total Dissolved Solids	EPA 160.1	AF52407	5	24-Jun-05 (CW)		884 mg/l	
TW1 - 3 (Sample I.D.# : 0506312-02) Collected: 23-Jun-05 By JTW							
Total Coliforms	SM 9221E	AF52404	2	25-Jun-05 (JV)	<	2 MPN/100 ml	
E. Coli	SM 9221E	AF52404	2	25-Jun-05 (JV)	<	2 MPN/100 ml	
Fecal Coliforms	SM 9221E	AF52404	2	25-Jun-05 (JV)	<	2 MPN/100 ml	
TW1 - 2 (Sample I.D.# : 0506312-03) Collected: 23-Jun-05 By JTW							
Nitrate as N	EPA 353.2	AF52409	0.01	24-Jun-05 (CA)	<	0.01 mg/l	
Total Dissolved Solids	EPA 160.1	AF52407	5	24-Jun-05 (CW)		950 mg/l	
TW1 - 4 (Sample I.D.# : 0506312-04) Collected: 23-Jun-05 By JTW							
Total Coliforms	SM 9221E	AF52404	2	25-Jun-05 (JV)	<	2 MPN/100 ml	
E. Coli	SM 9221E	AF52404	2	25-Jun-05 (JV)	<	2 MPN/100 ml	
Fecal Coliforms	SM 9221E	AF52404	2	25-Jun-05 (JV)	<	2 MPN/100 ml	

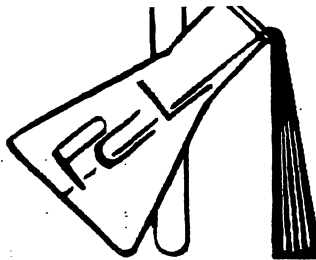
Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis

Respectfully Submitted,

Pat Brueckner
Laboratory Director

7/7/05



PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Questa Engineering Corporation**
319 East Sola Street Suite B
Santa Barbara CA, 93101

Page 1 of 1

Attention: **Bruce Douglas**
Report Date: **29-Jun-05 07:32**
Subject: **Two Winds Ranch**

Project/P.O.#: [none]

PARAMETER	METHOD	QC BATCH	REPORTING LIMIT	ANALYZED (ANALYST)		RESULT	NOTE
TW2 - 1 (Sample I.D.# : 0506313-01) Collected: 23-Jun-05 By JTW							
Nitrate as N	EPA 353.2	AF52409	0.01	24-Jun-05 (CA)	<	0.01 mg/l	
Total Dissolved Solids	EPA 160.1	AF52407	5	24-Jun-05 (CW)		862 mg/l	
TW2 - 3 (Sample I.D.# : 0506313-02) Collected: 23-Jun-05 By JTW							
Total Coliforms	SM 9221E	AF52404	2	27-Jun-05 (CW)		2 MPN/100 ml	
E. Coli	SM 9221E	AF52404	2	27-Jun-05 (CW)	<	2 MPN/100 ml	
Fecal Coliforms	SM 9221E	AF52404	2	27-Jun-05 (CW)	<	2 MPN/100 ml	
TW2 - 2 (Sample I.D.# : 0506313-03) Collected: 23-Jun-05 By JTW							
Nitrate as N	EPA 353.2	AF52409	0.01	24-Jun-05 (CA)	<	0.01 mg/l	
Total Dissolved Solids	EPA 160.1	AF52407	5	24-Jun-05 (CW)		856 mg/l	
TW2 - 4 (Sample I.D.# : 0506313-04) Collected: 23-Jun-05 By JTW							
Total Coliforms	SM 9221E	AF52404	2	25-Jun-05 (JV)	<	2 MPN/100 ml	
E. Coli	SM 9221E	AF52404	2	25-Jun-05 (JV)	<	2 MPN/100 ml	
Fecal Coliforms	SM 9221E	AF52404	2	25-Jun-05 (JV)	<	2 MPN/100 ml	

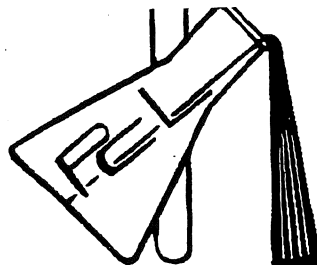
Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis

Respectfully Submitted,

Pat Brueckner
Laboratory Director

7/7/05



PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Questa Engineering Corporation**
319 East Sola Street Suite B
Santa Barbara CA, 93101

Page 1 of 1

Attention: **Bruce Douglas**
Report Date: **29-Jun-05 07:30**
Subject: **Two Winds Ranch**

Project/P.O.#: [none]

PARAMETER	METHOD	QC BATCH	REPORTING LIMIT	ANALYZED (ANALYST)	RESULT	NOTE
TW5 - 01 (Sample I.D.# : 0506307-01) Collected: 22-Jun-05 By Customer						
Nitrate as N	EPA 353.2	AF52306	0.01	24-Jun-05 (CA)	43.9 mg/l	
Total Dissolved Solids	EPA 160.1	AF52304	5	23-Jun-05 (CW)	1182 mg/l	
TW5 - 02 (Sample I.D.# : 0506307-02) Collected: 22-Jun-05 By Customer						
Total Coliforms	SM 9221E	AF52223	2	26-Jun-05 (JV)	33 MPN/100 ml	
E. Coli	SM 9221E	AF52223	2	26-Jun-05 (JV)	< 2 MPN/100 ml	
Fecal Coliforms	SM 9221E	AF52223	2	26-Jun-05 (JV)	8 MPN/100 ml	
TW5 - 03 (Sample I.D.# : 0506307-03) Collected: 22-Jun-05 By Customer						
Nitrate as N	EPA 353.2	AF52306	0.01	24-Jun-05 (CA)	44.1 mg/l	
Total Dissolved Solids	EPA 160.1	AF52304	5	23-Jun-05 (CW)	1222 mg/l	
TW5 - 04 (Sample I.D.# : 0506307-04) Collected: 22-Jun-05 By Customer						
Total Coliforms	SM 9221E	AF52223	2	25-Jun-05 (JV)	50 MPN/100 ml	
E. Coli	SM 9221E	AF52223	2	25-Jun-05 (JV)	2 MPN/100 ml	
Fecal Coliforms	SM 9221E	AF52223	2	25-Jun-05 (JV)	11 MPN/100 ml	

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis

Respectfully Submitted,

Pat Brueckner
Laboratory Director

7/7/05

Appendix D

Stormwater Management Analysis

Stormwater Runoff and Bioswale Hydrologic Calculations
Rancho Potrero, Ventura County

Methodology

$$Q_{ave} = Ci_{ave}A$$

Where C = runoff coefficient of contributing area
 i_{ave} = average rainfall intensity, in./hr.
 A = contributing drainage area, acrea

$$V_{mannings} = \frac{1.49}{n} R^{2/3} S^{1/2}$$

$$R_{swales} = \frac{Area_{wet}}{Perimeter_{wet}} = \frac{bd + (.5d(z_1 + z_2))}{b + \sqrt{z_1^2 + d^2} + \sqrt{z_2^2 + d^2}}$$

$$R_{V-Ditch} = \frac{Area_{wet}}{Perimeter_{wet}} = \frac{2(.5(dz))}{2(\sqrt{z^2 + d^2})}$$

Where n = mannings roughness coefficient
 R = hydraulic radius
 S = slope, ft./ft.
 b = swale width
 d = depth of water within swale
 z = side slope

Calculation of Q_{50} From Ventura County Flood Control District:

$$Q_{10} = 0.68Q_{50}$$

$$Q_{10} \text{ (63 acre subarea)} = 122 \text{ cfs}$$

$$Q_{50} = Q_{10} / 0.68 = 122 \text{ cfs} / 0.68 = 179.4 \text{ cfs}$$

Data and Assumptions

1. Runoff coefficient, C

Condition: Ground assumed to model construction site, bare soil, slope >30%

$$C = 0.30 - 0.60$$

“Agricultural land, 0-30%, Bare packed soil, smooth” (Goldman et al., 1986)

Assume: C = 0.60 (maximum value)

2. Mannings Roughness Coefficient, n

n = 0.20 (Ventura County Technical Guidance Manual for Stormwater Quality Control Measures)

Bioswale #1

Drainage Area (acres) = 1.21
Swale slope (%) = 0.015
Swale depth (ft) = 1.00
Swale length (ft) = 303.00
Top Width (ft) = 17.00
Swale Area (acres) = 0.12
Swale Area/Drainage Area (%) = 9.76
Left side slope = 4.00
Right side slope = 4.00
Bottom width (ft) = 9.00
Manning's n = 0.20

Effective Flow Residence Time (min.)= 10.77

Q₁₀ = 0.68Q₅₀
Q₁₀ (63 acre subarea) = 122 cfs
Q₅₀ = 122 cfs/0.68 = 179.4 cfs
179.4 cfs/63 acres = 2.85 cfs/acre
Total Flow = (2.85 cfs/acre * 1.21 acres) = 3.4 cfs

	Q (ft ³ /s)	Actual Depth (ft.)	Area _{wet} (ft ²)	Perimeter _{wet} (ft)	Hydraulic Radius (ft)	V _{manning} (ft/s)	V _{OA} (ft/s)
50 Yr. Storm	3.40	1.11	14.93	24.74	0.60	0.65	0.23
10 % of 50 Yr. Storm	0.34	0.15	1.45	11.14	0.13	0.23	0.23

Bioswale #2

Drainage Area (acres) = 3.77
Swale slope (%) = 0.013
Swale depth (ft) = 1.00
Swale length (ft) = 615.00
Top Width (ft) = 17.00
Swale Area (acres) = 0.24
Swale Area/Drainage Area (%) = 6.37
Left side slope = 4.00
Right side slope = 4.00
Bottom width (ft) = 9.00
Manning's n = 0.20

Effective Flow Residence Time (min.)= 15.79

Q₁₀ = 0.68Q₅₀
Q₁₀ (63 acre subarea) = 122 cfs
Q₅₀ = 122 cfs/0.68 = 179.4 cfs
179.4 cfs/63 acres = 2.85 cfs/acre
Total Flow = (2.85 cfs/acre * 3.77 acres) = 10.7 cfs

	Q (ft ³ /s)	Actual Depth (ft.)	Area _{wet} (ft ²)	Perimeter _{wet} (ft)	Hydraulic Radius (ft)	V _{manning} (ft/s)	V _{OA} (ft/s)
50 Yr. Storm	10.70	1.23	17.05	26.38	0.65	0.62	0.63
10 % of 50 Yr. Storm	1.07	0.32	3.30	13.54	0.24	0.32	0.32

Bioswale #3

Drainage Area (acres) = 3.43
Swale slope (%) = 0.010
Swale depth (ft) = 1.00
Swale length (ft) = 588.00
Top Width (ft) = 17.00
Swale Area (acres) = 0.23
Swale Area/Drainage Area (%) = 6.70
Left side slope = 4.00
Right side slope = 4.00
Bottom width (ft) = 9.00
Manning's n = 0.20

Effective Flow Residence Time (min.) = 21.42

$Q_{10} = 0.68Q_{50}$
 Q_{10} (63 acre subarea) = 122 cfs
 $Q_{50} = 122 \text{ cfs}/0.68 = 179.4 \text{ cfs}$
179.4 cfs/63 acres = 2.85 cfs/acre
Total Flow = (2.85 cfs/acre * 3.43 acres) = 9.8 cfs

	Q (ft ³ /s)	Actual Depth (ft.)	Area _{wet} (ft ²)	Perimeter _{wet} (ft)	Hydraulic Radius (ft)	V _{manning} (ft/s)	V _{0.4} (ft/s)
50 Yr. Storm	9.80	1.29	18.19	27.23	0.67	0.57	0.54
10 % of 50 Yr. Storm	0.98	0.33	3.35	13.61	0.25	0.29	0.29

Bioswale #4

Drainage Area (acres) = 4.02
Swale slope (%) = 0.006
Swale depth (ft) = 1.00
Swale length (ft) = 528.00
Top Width (ft) = 17.00
Swale Area (acres) = 0.21
Swale Area/Drainage Area (%) = 5.13
Left side slope = 4.00
Right side slope = 4.00
Bottom width (ft) = 9.00
Manning's n = 0.20

Effective Flow Residence Time (min.) = 17.06

$Q_{10} = 0.68Q_{50}$
 Q_{10} (63 acre subarea) = 122 cfs
 $Q_{50} = 122 \text{ cfs}/0.68 = 179.4 \text{ cfs}$
179.4 cfs/63 acres = 2.85 cfs/acre
Total Flow = (2.85 cfs/acre * 4.02 acres) = 11.5 cfs

	Q (ft ³ /s)	Actual Depth (ft.)	Area _{wet} (ft ²)	Perimeter _{wet} (ft)	Hydraulic Radius (ft)	V _{manning} (ft/s)	V _{0.4} (ft/s)
50 Yr. Storm	11.50	1.41	20.62	28.97	0.71	0.46	0.56
10 % of 50 Yr. Storm	1.15	0.42	4.46	14.92	0.30	0.26	0.26

Bioswale #5

Drainage Area (acres) = 4.94
Swale slope (%) = 0.008
Swale depth (ft) = 1.00
Swale length (ft) = 661.00
Top Width (ft) = 17.00
Swale Area (acres) = 0.26
Swale Area/Drainage Area (%) = 5.22
Left side slope = 4.00
Right side slope = 4.00
Bottom width (ft) = 9.00
Manning's n = 0.20

Effective Flow Residence Time (min.) = 18.16

$Q_{10} = 0.68Q_{50}$
 Q_{10} (63 acre subarea) = 122 cfs
 $Q_{50} = 122 \text{ cfs} / 0.68 = 179.4 \text{ cfs}$
179.4 cfs/63 acres = 2.85 cfs/acre
Total Flow = (2.85 cfs/acre * 4.94 acres) = 14.1 cfs

	Q (ft ³ /s)	Actual Depth (ft.)	Area _{wet} (ft ²)	Perimeter _{wet} (ft)	Hydraulic Radius (ft)	V _{manipias} (ft/s)	V _{o/A} (ft/s)
50 Yr. Storm	14.10	1.41	20.62	28.97	0.71	0.46	0.68
10 % of 50 Yr. Storm	1.41	0.43	4.65	15.14	0.31	0.30	0.30

Appendix C



M E M O R A N D U M

City of Thousand Oaks • Thousand Oaks, California

Public Works Department

TO: Greg Smith, Senior Planner

FROM: Kathy Lowry, Engineer Associate.

DATE: July 12, 2005

SUBJECT: Two Winds Ranch Driveway Location

Staff recommends the main access driveway for the development of Two Winds Ranch align with the intersection of Lynn Road and Via Andrea.

To select the optimum location for a driveway into a commercial project, staff must consider: 1) proximity to the adjacent intersection as well as spacing to adjacent driveways and driveways on the opposite side of the street 2) potential limitations in sight distance and 3) on-site grading and design issues.

For the following reasons the main driveway for the Two Winds Ranch should be located at the intersection of Lynn Road and Via Andrea:

1. In the vicinity of Two Winds Ranch, Lynn Road is classified as a secondary limited access road. Via Andrea is a residential street which intersects at Lynn Road adjacent to Two Winds Ranch. Resolution No. 95-20, condition #261(a) requires a minimum separation of 1,320 (¼ mile) feet between intersections on secondary access roads. The recommendation for ¼ mile spacing is based on the speed and volumes found on secondary access roads. The most easterly driveway is approximately 400 feet from the intersection of Lynn Road and Via Andrea. The location of the easterly driveway is less than the recommended intersection spacing for driveways accessing secondary limited access roads.
2. The easterly driveway provides visitors with direct access to the rental area of the site. Visitors accessing the easterly driveway must make a U-turn on Lynn Road at Via Andrea. Although the intersection allows U-turns, it has been noted that vehicles with horse trailers, delivery trucks and large pick-up trucks are unable to turn make this turn and must use the westerly most driveway. Lynn Road does not have a left turn pocket at this intersection. Vehicles must slow down in the travel lane to make the U-turn. New and returning visitors will find it confusing to travel past the Ranch to enter the site. Visitors who are unfamiliar with the site may attempt to make the U-turn in a vehicle that may not safely complete the turn.

3. The easterly driveway is not full access requiring all left turns in and out of the site to be made at the westerly most driveway. A full access driveway cannot be designed at the easterly most driveway due to limited sight distance for westbound traffic.
4. The property does not appear to have any on-site grading constraints for construction of a driveway at the intersection of Lynn Road and Via Andrea. The existing median on Lynn Road would need to be modified to provide a westbound left turn pocket at Via Andrea.

The easterly driveway should align with the on-site drive aisle. The easterly driveway should be designed, signed and maintained for: 1) emergency access and 2) service vehicle egress.

APPENDIX D

DRAFT

MITIGATION MONITORING REPORT

NOTE: As required by Public Resources Code, Section 21081.6, any project for which a Mitigated Negative Declaration or Environmental Impact Report is prepared, must be monitored to ensure that all mitigation measures imposed by the City or other Responsible Agency" which may have permit authority over the project, are carried out. In keeping with the provisions of the Public Resources Code, Section 21081.6, the following information has been compiled as a public record demonstrating compliance with these required mitigation monitoring and reporting procedures.

KEY TO ABBREVIATIONS:

CAO — CITY ATTORNEY'S OFFICE
DPW — DEPARTMENT OF PUBLIC WORKS
PA — PROJECT APPLICANT

CDD — COMMUNITY DEVELOPMENT DEPARTMENT
VCFD — VENTURA COUNTY FIRE DISTRICT

PROJECT TITLE: Ranch Potrero Equestrian Center	APPLICANT: City of Thousand Oaks
CASE NUMBER: CI-4307	ADDRESS: 2100 E. Thousand Oaks Blvd. Thousand Oaks, CA 91360
PLANNER: Greg Smith, Environmental Services	
DATE: September 2005	PHONE: (805) 449-2329

Mitigation Measure	Condition No.	Action Required	Frequency	Responsibility *	Date Complete	Initials
GEOLOGIC HAZARDS						
All permanent structures to designed and constructed to meet current Uniform Building Code seismic standards.	N/A	Plan Check Review	Once	City / Building and Safety Dept.		
WATER						
Sanitary wastewater discharges to be conveyed to City sewer system	N/A	Plan Check -Field inspection.	Once	City / Public Works Dept.		

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Mitigation Measure	Condition No.	Action Required	Frequency	Responsibility *	Date Complete	Initials
Retention basins to be removed and Bio-swale constructed on-site. Includes 50-ft. wide vegetated buffer between restored wetlands along southern boundary.	N/A	Plan Check -Field inspection.	Once	City / Public Works Dept.		
Compliance with conditions of NPDES Permit.	N/A	Field inspection.	On-going	City / Public Works Dept.		
AIR QUALITY						
Parking areas and interior roads to be resurfaced with clean compacted gravel. Includes landscape treatment of interior areas, as well as Lynn Road frontage.	N/A	Plan Check – Field Inspection	Once	City / Public Works Dept.		
Animal waste to be stored in metal containers in order to minimize odors. .	N/A	Field inspection.	Monthly	City Staff		
TRAFFIC / CIRCULATION						
Realignment of main driveway to be opposite Via Andrea. Includes construction of left-hand	N/A	Plan Check	Once	City / Public Works Dept.		

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Mitigation Measure	Condition No.	Action Required	Frequency	Responsibility *	Date Complete	Initials
turn pocket and reconstruction of median island.						
NOISE						
Enforcement of Noise Ordinance and limits on construction activities to the hours between 7am and 7 pm, Monday thru Saturday	N/A	Field inspection.	As Necessary	City Staff		
AESTHETICS						
Arena lighting shall not be used later than 8:00 p.m.	N/A	Field inspection.	As needed	City Staff		

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