



US Army Corps
of Engineers.

SAN FRANCISCO DISTRICT

PUBLIC NOTICE

NUMBER: 24336N

DATE: February 16, 2000

RESPONSE REQUIRED BY: March 17, 2000

Regulatory Branch

333 Market Street

San Francisco, CA 94105-1905

PROJECT MANAGER: Liz Varnhagen (415) 977-8451

E-mail: evarnhagen@smtp.spd.usace.army.mil

1. INTRODUCTION: Forsythe Pacific, LLC, 500 Shiloh Meadows Road, Santa Rosa, California, 95403, through their consultants, Wetlands Research Associates, Inc., 2169 East Francisco Blvd., Suite G, San Rafael, California, 94901, [Contact: Michael Josselyn, 415-454-8868], has applied for a Department of the Army permit to authorize the discharge of fill into approximately 2.7 acres of U.S. waters associated with developing the Mayacama Club on a 512-acre site east of the Town of Windsor in northern Sonoma County, California, (Figures 1 and 2), This application is being processed pursuant to the provisions of Section 404 of the Clean Water Act (CWA) (33 U.S.C. 1344).

2. PROJECT DESCRIPTION: The applicant plans to fill 2.3 acres of seasonal wetlands and approximately 0.45 acres of other waters in order to construct a private, 18-hole golf course, 31 housing units, 50 accommodation units, a clubhouse with a restaurant and accessory uses, and project maintenance buildings. To offset these adverse impacts to waters of the U.S., the applicant is proposing on-site compensatory mitigation of wetlands at a replacement/impact ratio of 1.4:1.

Environmental Setting:

The project site is located in the hills east of the town of Windsor. Its eastern boundary is near Mark West Creek, with Shiloh County Regional Park forming the western boundary. With the exception of approximately 15 acres at the northwest corner, the project site is within a small, self-contained drainage basin feeding Mark West Creek. The topography is varied, with elevations ranging from 450 to 750 feet on the ridgetops.

There are a number of habitats on site that exhibit qualities of relatively undisturbed, self-sustaining natural environments. The primary vegetation communities include perennial grassland, mixed chaparral, oak woodland, Douglas fir and mixed

evergreen forest, and seasonal creek vegetative communities.

The grasslands are dominated by native perennial bunch grasses such as California oatgrass (*Danthonia californica*) in the lower areas and purple needle grass (*Nusella pulchra*) on the slopes. Vernal swales characterized by rushes, (*Juncus* spp), oatgrass, and bulbs occupy portions of the low-lying meadows but do not have the characteristics of vernal pools. Freshwater seeps occur along the lower portion of many of the grassy slopes, and their plant communities are dominated by rushes and oatgrass. The property was historically grazed but has not had grazing for the last ten years.

Four tributaries drain most of the property into Mark West Creek. Most of the project activities will occur in the vicinity of the northern and central tributaries. Almost all watercourses occurring on the site only flow seasonally, although there is a small reach of the lower portion of one of the tributaries feeding Mark West Creek that contains small pools year round. Streambeds of the main channels have alluvial gravels and cobbles. Bed areas of side drainages are often scoured sandstone or bare soil. Active erosion occurs along many drainage channels, in several upland meadow areas, on active landslides on slopes, and on over-steepened portions of older landslides.

Proposed Project:

Implementation of the development plan for the Mayacama Golf Club project requires the discharge of fill material into 44 separate aquatic sites subject to Corps jurisdiction. These sites are small, ranging in size from 0.01 acre to 0.50 acre.

In 1994, the Sonoma County Board of Supervisors approved a golf course community (formerly called Shiloh Meadows) on the project site and certified a Final Environmental Impact Report. Forsythe Pacific is now implementing the approved plan. However, they claim

that the project has been modified such that development is more clustered than before and impacts fewer natural resources. For example, housing development has been clustered so that the infrastructure of roads and utilities is more efficient and less environmentally intrusive. This will decrease vegetation removal, disturbance of wildlife corridors, and changes in local drainage patterns. It will substantially increase the areas of large, contiguous natural habitat. In addition, the Mayacama Club will have limited automobile use by members and guests. Golf carts will be the prime method of transportation. Vineyards are being considered in addition to undeveloped open space as a means to complement the development and assure its rural ambience. Acreage allocated for the various land uses is as follows:

| | |
|---------------------------------|-----------|
| Golf Course and Club Facilities | 200 acres |
| Lodging Suites (50 units) | 10 acres |
| Cottage Residences (31 units) | 31 acres |
| Vineyards | 15 acres |
| Open Space | 256 acres |

The Mayacama Golf Club will be featured as a Championship Signature Golf Course in the Northern California Wine Country. The course area will utilize the natural slope of the hills and valleys, while maximizing views. This area includes the golf playing area and all ancillary features such as the clubhouse, parking, practice range, maintenance facilities, and lakes.

Given the rolling terrain of the site, relatively little soil will need to be moved to allow for mounding the final shaping of the holes. There will be several holes that play alongside lakes and small streams. Introduced landscaping will include a combination of bent and native grasses along the holes. Some reclaimed water will be used to irrigate a portion of the course.

A full practice range and facilities will be developed between holes 9 and 10 with requisite putting and chipping greens. Another practice green will be located adjacent to the 10th green. Cart paths will provide access to all areas of the course, and keeping with the theme of the development, they will also connect to the lodging units and cottage residences. The use of automobiles will be confined to a parking lot to be situated near the entrance, on the northern portion of the property, so the construction of extensive, wide roadways will not be necessary for this project. Short distance transportation will be accomplished on foot or via golf cart.

The 50 individual lodging suites, or Casitas, will occupy up to 760 sq. ft each. The 31 cottage-style permanent residence units will be clustered on the north side of the property overlooking the golf course, and accessed by golf cart only. The cottages will average about 2500 sq. ft. each, depending on topography.

For long-term open space protection, Forsythe Pacific has commissioned, among other programs, a *Vegetation Management Plan* and a *Tree Preservation and Replacement Plan*, which has been approved by the California Department of Fish and Game, to maintain and promote native biodiversity within the native primary plant communities that are to remain in open space after construction. This plan identifies site-specific areas for habitat enhancement and describe what will be done to control invasive exotic species as well.

Wetland Mitigation Measures:

This project is located outside the boundaries of the Santa Rosa Plain, so the San Francisco District special regional mitigation policies do not apply here.

Prior to the submission of this permit application, several proposed golf course features were redesigned to avoid direct wetland impacts.

There are two basic types of jurisdictional waters within the project areas that will be filled. These include seasonal wetlands, and seasonally flowing drainages. Most of the seasonal wetlands are small (200 to 16,000 square feet) and include three different types: wetlands in or adjacent to water courses, vernal swales which are often grassy meadows, and wetlands caused by and/or occurring in disturbed areas such as old road beds, filled gullies, pre-development graded areas, etc. These wetlands function to improve quality of stormwater by collecting sediment and polluting substances, recharging groundwater, providing sources of water and habitat for wildlife, reducing soil erosion potential, and increasing nutrient uptake and transformation.

The 2.7 acres of filled waters are comprised of:

- approx. 0.4 acre of water courses
- approx. 0.05 acre of non-wetland waters for erosion protection
- approx. 1.85 acres of wetlands
- approx. 0.4 acre of graded roadbeds that meet wetland criteria.

To mitigate wetland impacts, seasonal wetlands similar to those found on the property will be created by constructing shallow basins and terraces of compacted soils that will pond water seasonally in a manner similar

to other existing wetlands on site. These basins and terraces will be seeded and planted with native species transplanted and grown from seed on the project site. Mitigation will also include about 470 feet of new stream channel. Additional restoration and enhancement of wetlands and waters on the site will occur as part of head cut and gully repair, as well as the removal and restoration of existing road crossings and culverts at the site.

To offset the projected loss of 2.7 acres of waters of the U.S., Forsythe Pacific is proposing compensatory mitigation for wetland impacts at a ratio of 1.4:1, wetland area created to wetland area impacted, on-site. Mitigation will include construction of approximately 2.6 acres of new seasonal wetlands, restoration of 470 linear feet of creek channels, and installation of small erosion control structures within and along the creeks and gullies. This would be done to reduce potential erosion as well as to reduce sediment load that would be transported into Mark West Creek. These structures will be maintained for the life of the project.

Twenty-nine separate small wetland creation and six water course creation sites, scattered throughout the project area, are proposed to be completed as part of this Habitat Mitigation and Monitoring Plan (Prunuske Chatham, August 1999) implementation. Contingency wetland locations will be identified and developed as appropriate. Forsythe Pacific will be responsible for long term management.

Wetland mitigation site preparation will consist of removing and stockpiling the top 4 to 6 inches of soil and grading the site where needed to allow water to saturate or pond to a depth of 1 inch or less. The disturbed subsurface will be compacted as needed, then the topsoil will be replaced to bring the site back up to design grade. Wetland sites will be seeded with native wetland species collected from the project area.

The Forsythe Pacific proposes to maintain and monitor the mitigation for a minimum of five years. Wetland success criteria will specify that greater than 50% of the established dominant plant species in the created wetland be native wetland at the end of the establishment period.

Wetland mitigation areas have been chosen for their compatibility with proposed development features, proximity to existing streams and wetlands, to golf course ponds and lakes, to areas containing wetland

indicator species, areas with apparent potential to retain base flow or storm water over an extended period during the growing season, and areas with soil conditions that favor ponding when compacted.

A segment of a 385-foot reach of a seasonal creek channel in mixed chaparral habitat at Fairway 18 is proposed to be relocated. The channel width averages four feet, and the associated riparian zone is approximately 15 feet on each side. The County and California Department of Fish and Game (CDFG) will require a 2:1 acreage replacement (replacement : impact) and a 3:1 plant replacement.

3. STATE APPROVALS: Under Section 401 of the Clean Water Act, an applicant for a Corps permit must obtain a State water quality certification or waiver before a Corps permit may be issued. The North Coast Regional Water Quality Control Board presumed that the project would be authorized under nationwide permit #26, and thus waived water quality certification for this project on October 25, 1999.

Those parties concerned with any water quality issues that may be associated with this project should write to the Executive Officer, California Regional Water Quality Control Board, North Coast Region, 5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403, by the close of the comment period of this public notice.

4. PRELIMINARY ENVIRONMENTAL ASSESSMENT: The Corps of Engineers has assessed the environmental impacts of the action proposed in accordance with the requirements of the National Environmental Policy Act of 1969 (Public Law 91-190), and pursuant to Council on Environmental Quality's Regulations 40 CFR 1500-1508 and Corps of Engineers' Regulations, 33 CFR 230 and 325, Appendix B. Unless otherwise stated, the Preliminary Environmental Assessment describes only the impacts (direct, indirect, and cumulative) resulting from activities within the jurisdiction of the Corps of Engineers.

IMPACTS ON THE AQUATIC ENVIRONMENT

a. Physical/Chemical Characteristics and Anticipated Changes

Substrate - Of the 512 acres of undeveloped land that comprise the subject property, approximately 256 acres (half) will be altered permanently by the proposed development, and the other half will be set aside as open space. The largest alteration of wetland substrate

will be caused from the conversion to various functional features of the golf course and its associated facilities. Because of the spots of ongoing soil erosion, and active erosion and landslide potential from past land disturbances on the site, some of these substrate alterations will reduce the active erosion and be considered beneficial. Overall, impacts to existing substrate will be permanent and moderate in magnitude.

Drainage Patterns - The proposed development of the Mayacama Club will result in minor alteration to the four main watercourses that drain most of the property, and feed Mark West Creek. The fairways and other golf greens will have drainage systems separate from the natural tributary system to prevent undesired fertilizer and pesticide substances from polluting the native waters. Additionally, the development will result in an increase of impervious surfaces and will require the installation of storm drains. Overall, these alterations of the drainage patterns on the landscape will be permanent, but are expected to cause relatively impacts to the Mark West Creek drainage basin.

Suspended particles/Turbidity - Generally Mark West Creek serves as an important salmonid corridor in the area, and an increase in turbidity levels resulting from land disturbance upstream could adversely impact newly hatched fish populations. See discussion addressing erosion control, below. If diligently implemented, the proposed Erosion Control Mitigation Measures (Prunuske Chatham, Inc., June 1999) the precautionary sediment control structure and grading practices should help prevent appreciable increases in suspended particle load from ground disturbances associated with the construction of this project, into Mark West Creek, in either the short or long term.

Erosion / Sedimentation Rate - Although there are no buildings currently on the project site, several unpaved roads with deep erosion furrows and aging culverts and other stream crossings interrupt the landscape. Several of the open slopes exhibit signs of active soil erosion and instability as well. In order to attain County approval, several plans were prepared, and are still in preparation, that will be reviewed and approved by, in some cases, both the County, and the North Coast Regional Water Quality Control Board. These include:

Erosion Control Plans which describe restricting grading activities to the dry season, protecting finished graded slopes from erosion, protecting downstream storm drainage inlets from sedimentation, and using silt fencing.

Erosion Control Mitigation Plan - includes proposed installation of erosion repairs at 42 locations on the site. These sites are primarily in the headwaters area and are separate from any erosion control measures directly related to project construction

Other Drainage and Erosion Control Measures - which address design considerations for residences, drainage outfalls, and creek crossings to minimize erosion.

A host of varying repair techniques will be employed to control the potential for continued soil erosion at the identified high priority sites. These are identified and described, site by site, in the Summary of Mayacama Club Erosion Control Mitigation Measures, prepared by Prunuske Chatham, Inc. dated June 1999, a document that is available for review upon request from the Corps or the applicant's consultant, Wetlands Research Associates. Some of these repairs will be performed in waters of the U.S., such as culvert replacement or removal, others will be performed as slope protection outside of jurisdictional areas, and are not included in this permit evaluation.

Soil erosion as a result of land disturbance appears to be a potential problem on this property due in part to the varied, hilly topography and unstable underlying soils. Massive grading and landscape alteration could possibly result in large quantities of sediment washing into Mark West Creek which in turn could degrade the habitat it provides for salmonid species of fish. If *all* the precautions identified in the erosion control plan are diligently and successfully implemented, impacts to waterways on and downstream of the project site should be only minor and temporary.

Water Quality In response to County requirements, Forsythe Pacific will perform several measures to protect water quality. These include using catchment basins in paved areas to intercept and contain stormwater runoff contaminated by oil and grease, installing runoff control basins and re-circulation systems to insure no discharge of reclaimed wastewater into Mark West Creek, preparing and implementing an *Integrated Golf Course Management Plan*, which will include nitrogen control and chemical application management, monitoring surface water quality, and educating homeowners about water quality issues.

Stormwater from the residential and country club development area will discharge into on site tributaries to Mark West Creek, but irrigation and stormwater runoff from the golf course landscape areas will be carefully controlled so that it will not enter native waters directly. Erosion and sediment control devices and practices will be implemented during construction to minimize the amount of sediment entering waters. Any

long-term impacts to water quality are expected to be minor.

Flood Control Function of Wetland - Most of the areas that will be permanently altered in this project are associated with the golf course. The lodging and cottage residence complex will collectively only occupy approximately 41 acres, and the construction of these facilities and their associated infrastructure will place fill in only a small amount of the identified waters. Also, due to their small size and scattered distribution, the affected wetlands generally do not perform an important flood control function on this site.

b. Biological Characteristics and Anticipated Changes

Special Aquatic Sites - Wetlands - Seasonally wet areas occur mostly in small patches that are scattered across the lower slopes and low lying areas throughout the property. Many of the golf course greens were designed to avoid impacting these patchy areas, but a total of 2.3 acres of wetlands will be filled. The applicant proposes to mitigate the loss of wetlands on site by creating approximately 2.6 acres of compensatory wetlands on site, at a ratio of 1.4:1, created to impacted wetland (but not including compensation for the 'wetland' roadways, or for non-wetland water courses).

If all these measures are fully implemented, the net impact to special aquatic sites is expected to be temporary and minor.

Endangered Species - No federal or state threatened or endangered plant or animal species are known to occur, on the project site. However, the site is located upstream of Mark West Creek which is considered critical habitat for the threatened coho salmon (*Oncorhynchus kisutch*), and has been proposed for designation as critical habitat for the threatened steelhead trout (*O. mykiss*), and chinook salmon (*O. tshawytscha*). Because almost all of the project site drains into Mark West Creek, the construction of the proposed project may affect the proposed and listed critical habitat. However, with successful implementation of the proposed Erosion Control Mitigation Measures, and the Golf Course Management Plan that is still being formulated, the potential for additional sedimentation into the Creek, as well as increased suspended particles within the inflowing waters is expected to be greatly reduced. The Corps will initiate informal consultation with the National Marine Fisheries Service, seeking their written concurrence that, with the requirement to implement

all the precautionary measures and restrictions included in these plans (once the plans are ready), the project is not likely to adversely affect the proposed and listed critical habitats for these salmonid species in Mark West Creek.

Aquatic Habitat - (other than grassy wetlands) There are many small streams that occur throughout the property, draining the forested hills and grasslands. Some of these streams have been destabilized and degraded as the result of poor road construction (unpaved ranch roads traverse many sections of the property), as well as abuse from trespassers and their all terrain vehicles.

Overall, stream habitat quality is in pretty good condition throughout the property, with numerous localized exceptions, and supports healthy indigenous invertebrate and vertebrate aquatic populations adapted to seasonally intermittent wet conditions. Additionally, one of the tributaries to Mark West Creek supports a series of shaded perennial pools, of high habitat value. These pools will not be directly impacted from the construction of this project. The total of 0.4 acre of impacts to the other streamside habitats will come from the alteration of the native landscape, converted to golf fairways and other turf covered features, and other urbanizing improvements that necessitate the installation of culverts to replace native substrate.

At Fairway 18, a 385-foot long stretch of seasonal creek will be constructed to re-route an existing four-foot wide channel that planned to be inundated by the construction of a golf course pond. Approximately 80 linear feet of other impacted channels will be similarly rerouted (filled and reconstructed). Other streambed enhancement activities include the removal of, in some cases, and replace in others, several ineffective culverts, and stabilizing gully situations, thus preventing further ongoing degradation of existing water courses on the site. Additionally, at several locations, cart path bridges will be constructed rather than new culverts being installed.

The implementation of the applicant's *Seasonal Creek Association Replacement Plan* (Prunuske Chatham, Inc., 1999), as well as their *Erosion Control Mitigation Measures*, the *Habitat Mitigation and Monitoring Plan*, and proposed *Golf Course Management Plan*, should ensure that impacts to the aquatic habitat that exists on the project site are only minor in the long term.

Habitat for Wildlife - Wildlife that uses the project site will be disturbed and displaced on a short-term basis during construction of the project. Successful implementation of mitigation measures will reduce the disturbance and displacement of wildlife (i.e. limits to

fencing, reduced outdoor lighting, restrictive grading, prohibiting removal of snag trees, clearing pasture, and controlled use of pesticides and herbicides

IMPACTS ON RESOURCES OUTSIDE OF THE AQUATIC ENVIRONMENT

c. Physical Characteristics and Anticipated Changes

Air Quality - Based on the minor size of the proposed project and limited to an evaluation of air quality impacts only within Corps of Engineers' jurisdictional areas, the Corps has determined that the total direct and indirect project emissions would not exceed the de minimus threshold levels of 40 CFR 93.153. Therefore, the proposed project would conform to the requirements of the State Air Quality Implementation Plan for California.

Noise Conditions — Short term, adverse impacts to ambient noise levels in the local area could be expected during project construction due to equipment operation. The current Noise Element for the County of Sonoma was adopted in 1989, and contains policies and measures to achieve noise compatibility between land uses and to reduce existing and future noise conflicts. All goal and objectives for this policy will be followed.

There are a few estate homes scattered along the ridges surrounding the project site. These local residents will notice the increased noise levels during project construction. As long as the contractors conform to County requirements, disturbance should be minimized.

d. Socioeconomic Characteristics and Anticipated Changes

Aesthetics - Currently the site retains high aesthetic quality, with rolling hills of grassland, intermingled with substantial oak forest communities. The Country Club development (residential and golf course facilities) are designed to fit into the rural landscape such that the natural setting will be part of what promotes and enhances the development. Adverse aesthetic impacts, especially from removing trees, have thus been minimized to a large extent. However, the property will take on a much more manicured, manipulated appearance that will be permanent.

Historic - Cultural Resources - Two potential prehistoric sites were listed during the EIR planning phase for this project. A Corps of Engineers staff archaeologist will assess the available information about cultural

resources that may occur within the project area. If, based upon the available information, a field investigation of the permit area is warranted, and cultural properties listed or eligible for listing on the National Register of Historic Places are identified during the inspection, the Corps of Engineers will coordinate with the State Historic Preservation Officer to take into account any project effects on such properties.

e. Summary of Indirect

Impacts Sources of indirect impacts to waters of the U.S. both on and surrounding the project site include: application of fertilizers and pesticides to maintain the golf greens and general residential landscaping, land slides and accelerated erosion from unsound construction and land disturbance, and groundwater pumping that ultimately affects the base flow, and amount of water feeding Mark West Creek. However the potential for each of these impacts has been addressed by the applicant in various mitigation documents, and precautionary measures will be implemented to ensure these impacts are only minimal.

f. Summary of Cumulative Impacts

While there is rapid and widespread land alteration and development occurring on the Santa Rosa Plain in and around Windsor that is cumulatively significant, the Mayacamas Mountains directly to the east, remain largely in their natural rural state. The construction of this project will incrementally contribute to the development of this rural area as well, but ideally with all proposed safeguards in place, environmental degradation from construction of this project will be small, especially in light of the fact that about half of the acreage of the project site will be set aside as open space in its unaltered condition. Also, if the mitigation efforts are successful, there should be no net loss of wetland functions or values resulting from the construction of this project.

g. Conclusions and Recommendations

Based on an analysis of the above identified impacts, a preliminary determination has been made that it will not be necessary to prepare an Environmental Impact Statement (EIS) for the subject permit application. Our Environmental Assessment for the proposed action has, however, not yet been finalized and this preliminary determination may be reconsidered if additional information is forthcoming.

5. EVALUATION OF ALTERNATIVES: Evaluation of this activity's impact on the public interest will also include application of the guidelines promulgated by

the Administrator of the Environmental Protection Agency under Section 404(b) of the Clean Water Act, 33 USC, Section 1344(b).

The Corps has determined that the project is non-water dependent and will involve placing fill in special aquatic sites. Therefore, the applicant will need to demonstrate how the project as proposed, is the least environmentally damaging, practicable alternative that will accomplish the project purpose.

The Corps has preliminarily identified the overall project purpose as: The construction of a championship golf course, country club, and associated residential development within the northern Sonoma/Napa County wine country.

6. PUBLIC INTEREST EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest as they relate to activities in, or affecting, the navigable waters of the United States and the discharge of dredged or fill materials into those waters. Evaluation of the probable impacts which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case.

The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonable foreseeable detriments. The decision whether to authorize a proposal, and if so the conditions under which it will be allowed to occur, are therefore determined by the outcome of the general balancing process. That decision will reflect the national concern for both protection and utilization of important resources. All factors which may be relevant to the proposal must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

7. CONSIDERATION OF COMMENTS: The Corps of Engineers is soliciting comments from the public Federal, State and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity.

Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

8. SUBMISSION OF COMMENTS: Interested parties may submit in writing any comments concerning this activity. Comments should include the applicant's name, the number, and the date of this notice and should be forwarded so as to reach this office within the comment period specified on page one of this notice. Comments should be sent to: The San Francisco District, Army Corps of Engineers, Attention: Regulatory Branch, 333 Market Street, San Francisco, CA 94105. It is Corps policy to forward any such comments which include objections to the applicant for resolution or rebuttal. Any person may also request, in writing, within the comment period of this notice that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Additional details may be obtained by contacting the applicant whose address is indicated in the first paragraph of this notice, or by contacting Liz Varnhagen of our office 415-977-8451. Details on any changes of a minor nature which are made in the final permit action will be provided on request.

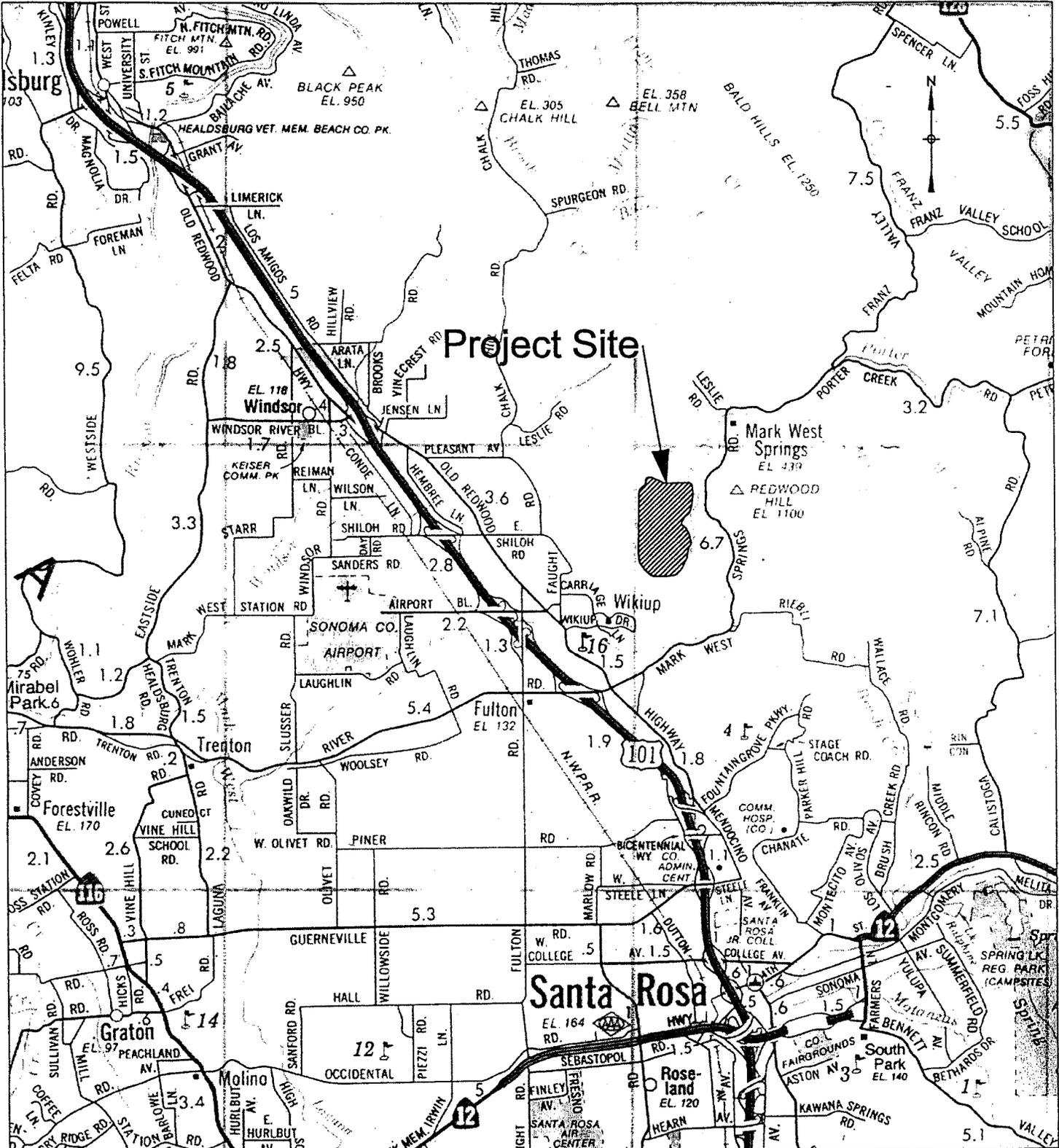


Figure 1

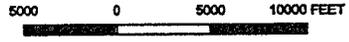
PURPOSE: Mayacama Golf Course Club/Residential Project

Corps File No. 24336N

ADJACENT PROPERTY OWNERS:

See Application

LOCATION MAP



SCALE 1:120,000

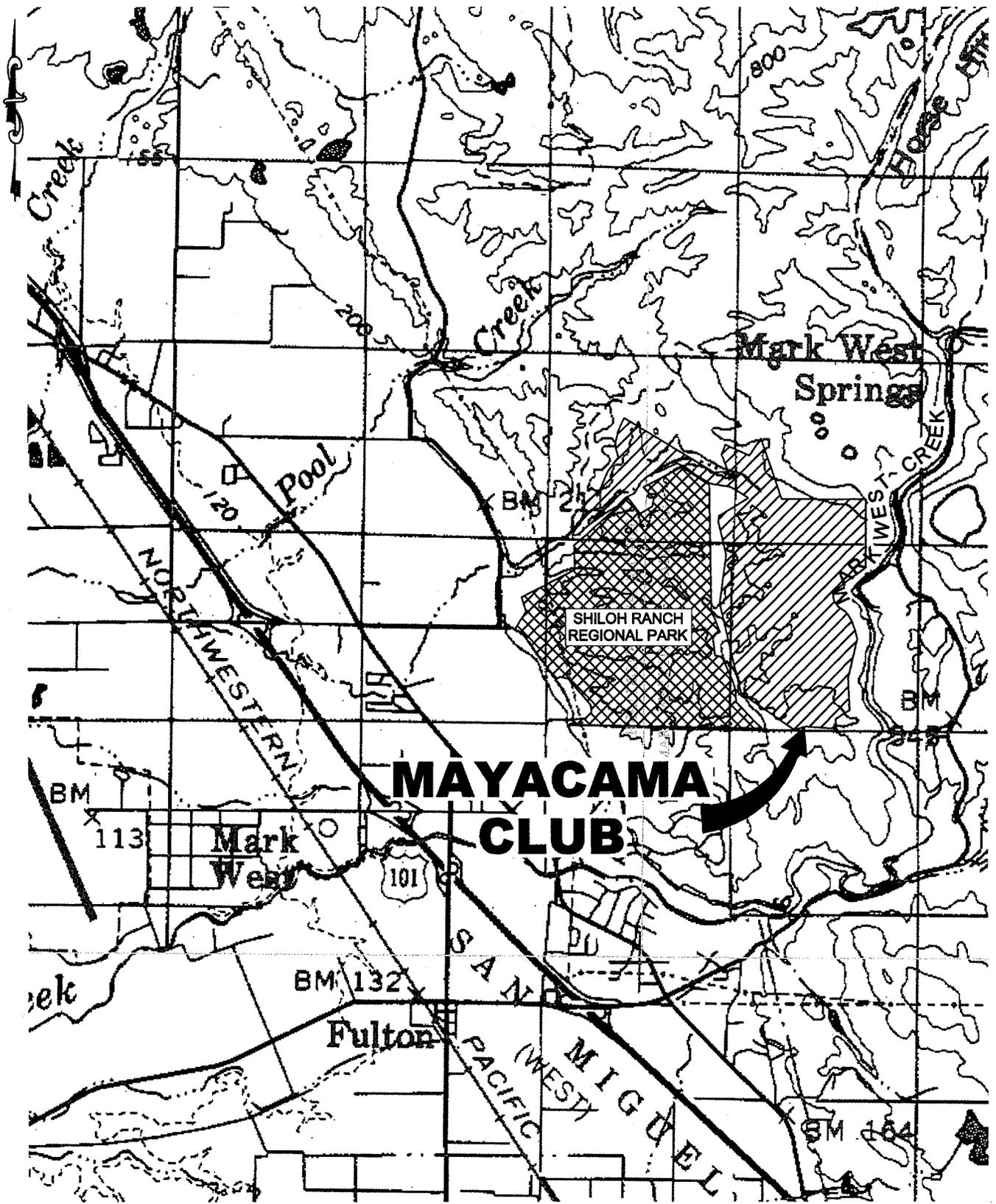
Forsythe Pacific, LLC
 3450 Regional Parkway, Suite D
 Santa Rosa, California 95403
 Phone: 707-527-9000

LOCATION: 100 Shiloh Meadow Road

COUNTY: Sonoma

APPLICATION BY: Forsythe Pacific, LLC

SHEET: 1 of 4 DATE: August 1999



SOURCE: USGS TOPOGRAPHY MAP OF SONOMA COUNTY 1970

PRUNUSKE CHATHAM, INC.
 P.O. BOX 828
 OCCIDENTAL, CA 95465
 (707) 874-0100

DATE: JANUARY, 2000
 SCALE: 1" = 4000'
 CHECKED BY: MN
 DRAFTED BY: FW
 DESIGNED BY: _____

PROJECT VICINITY MAP

Corps File # 24336N

Figure

2

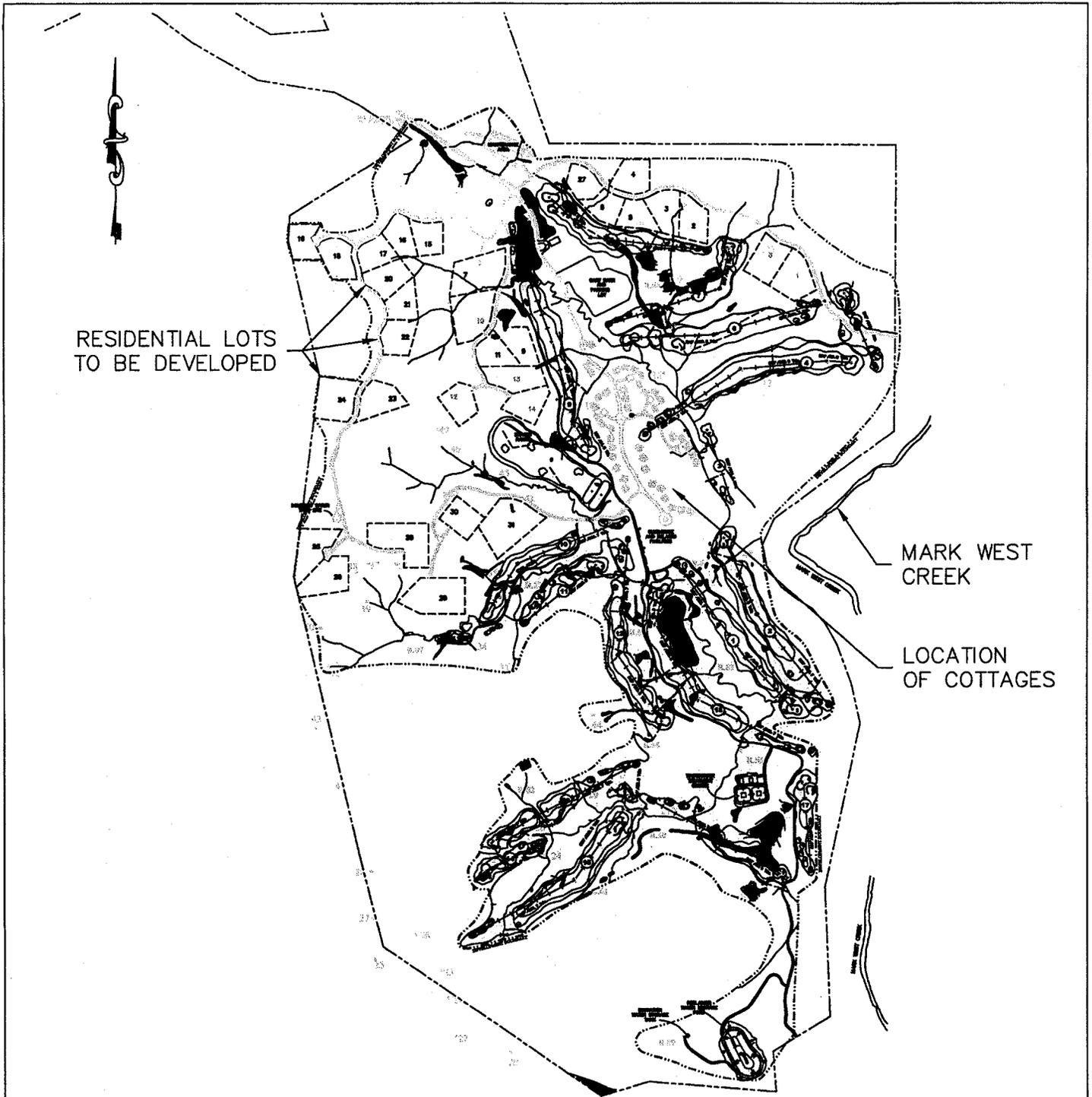


Figure 3

Map prepared by Prunuske Chatham, Inc.

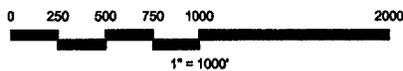
PURPOSE: Mayacama Golf Course Club/Residential Project

USGS Quadrangle: Mark West Springs, 1993, 7.5 minute series

ADJACENT PROPERTY OWNERS:
See Application

Corps File # 24336N

Project Site Map



Mayacama Golf Club
500 Shiloh Meadow Road
Santa Rosa, CA 95403
707-543-8040

LOCATION: 500 Shiloh Meadow Road

COUNTY: Sonoma

APPLICATION BY: Mayacama Golf Club

SHEET: 1 of 6

DATE: January 2000

LEGEND

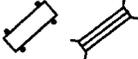
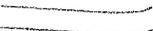
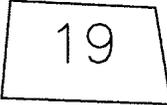
-  WETLANDS TO BE AVOIDED
-  IMPACTED WETLANDS
-  PROPOSED MITIGATION WETLANDS
-  WATER COURSE
-  WATER COURSES TO BE FILLED
-  WATER COURSE TO BE TEMPORARILY IMPACTED
-  CULVERT REMOVAL OR CREATED WATERS
-  PROPOSED GOLF COURSE POND
-  PROPOSED CART PATH (WITH CULVERT)
-  PROPOSED ROAD
-  PROPOSED BRIDGE
-  PROPOSED CONSTRUCTED SWALE
-  EXISTING ROAD
-  49 EROSION CONTROL REPAIR SITE
-  R.52 ROAD EROSION SITE
-  EXISTING VEGETATION BOUNDARY
-  BOUNDARY OF DEVELOPMENT AREA
-  19 RESIDENTIAL LOT

Figure 3a

Map prepared by Prunuske Chatham, Inc.

PURPOSE: Mayacama Golf Course Club/Residential Project

USGS Quadrangle: Mark West Springs, 1993, 7.5 minute series

ADJACENT PROPERTY OWNERS:
See Application

Corps File No. 24336N

Legend

Mayacama Golf Club
500 Shiloh Meadow Road
Santa Rosa, CA 95403
707-543-8040

LOCATION: 500 Shiloh Meadow Road

COUNTY: Sonoma

APPLICATION BY: Mayacama Golf Club

SHEET: 2 of 6

DATE: January 2000

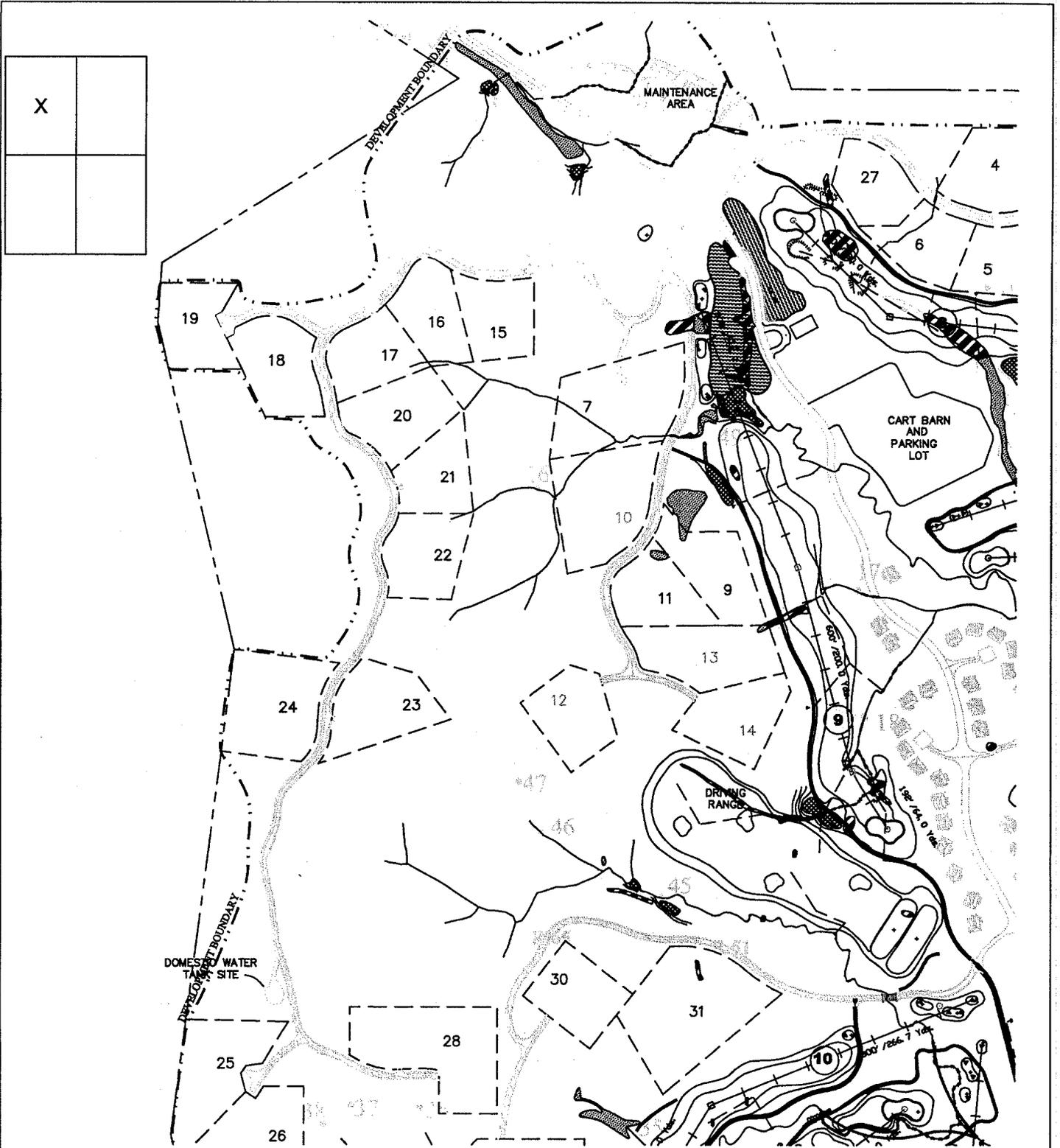
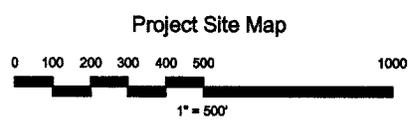


Figure 3b

Map prepared by Prunuske Chatham, Inc.

PURPOSE: Mayacama Golf Course Club/Residential Project
USGS Quadrangle: Mark West Springs, 1993, 7.5 minute series
ADJACENT PROPERTY OWNERS:
 See Application
Corps File # 24336N



Mayacama Golf Club
 500 Shiloh Meadow Road
 Santa Rosa, CA 95403
 707-543-8040

LOCATION: 500 Shiloh Meadow Road
COUNTY: Sonoma
APPLICATION BY: Mayacama Golf Club
SHEET: 3 of 6 **DATE:** January 2000

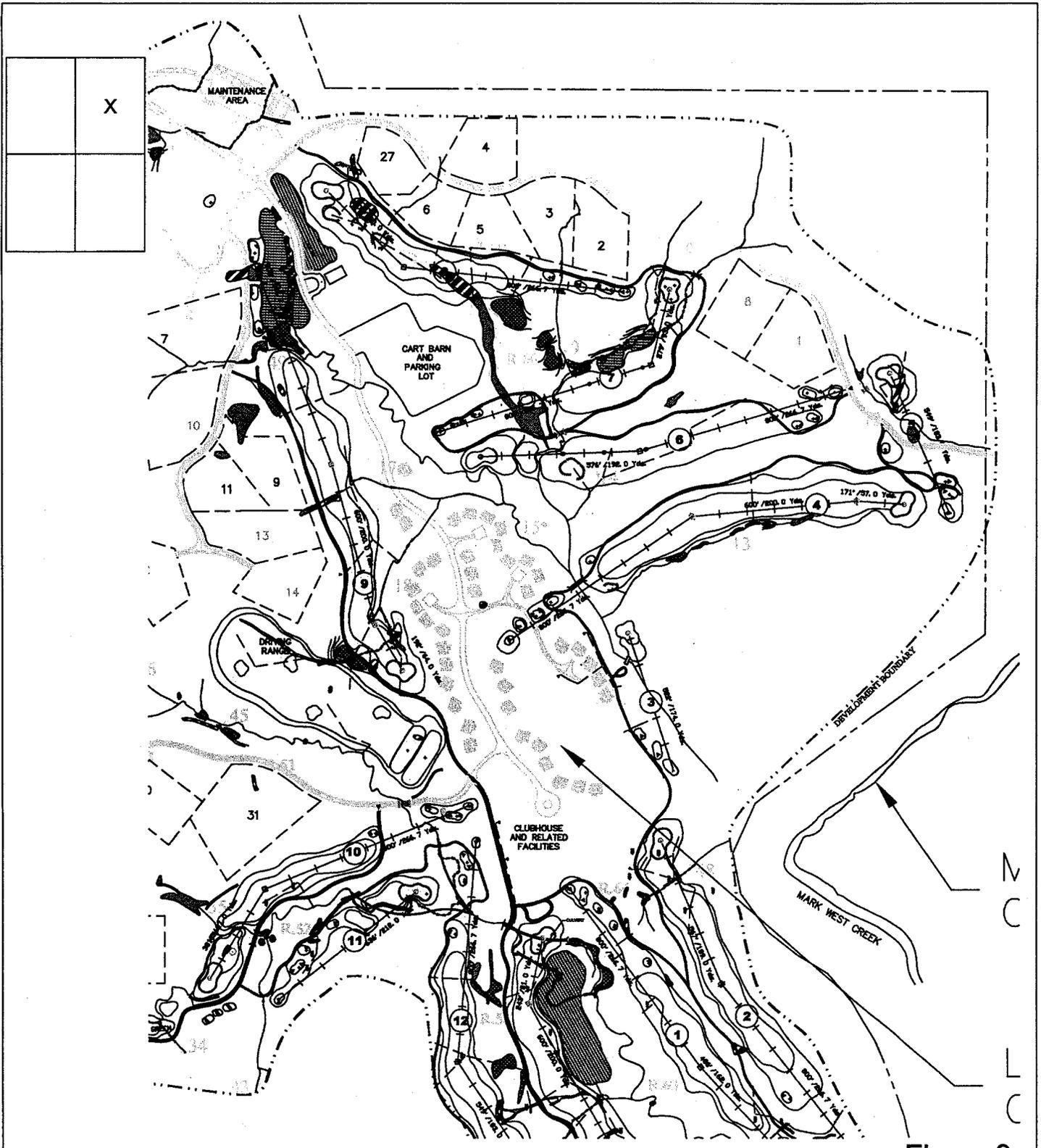


Figure 3c

Map prepared by Prunuske Chatham, Inc.

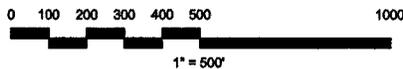
PURPOSE: Mayacama Golf Course Club/Residential Project

USGS Quadrangle: Mark West Springs, 1993, 7.5 minute series

ADJACENT PROPERTY OWNERS:
See Application

Corps file # 24336N

Project Site Map



Mayacama Golf Club
500 Shiloh Meadow Road
Santa Rosa, CA 95403
707-543-8040

LOCATION: 500 Shiloh Meadow Road

COUNTY: Sonoma

APPLICATION BY: Mayacama Golf Club

SHEET: 4 of 6

DATE: January 2000

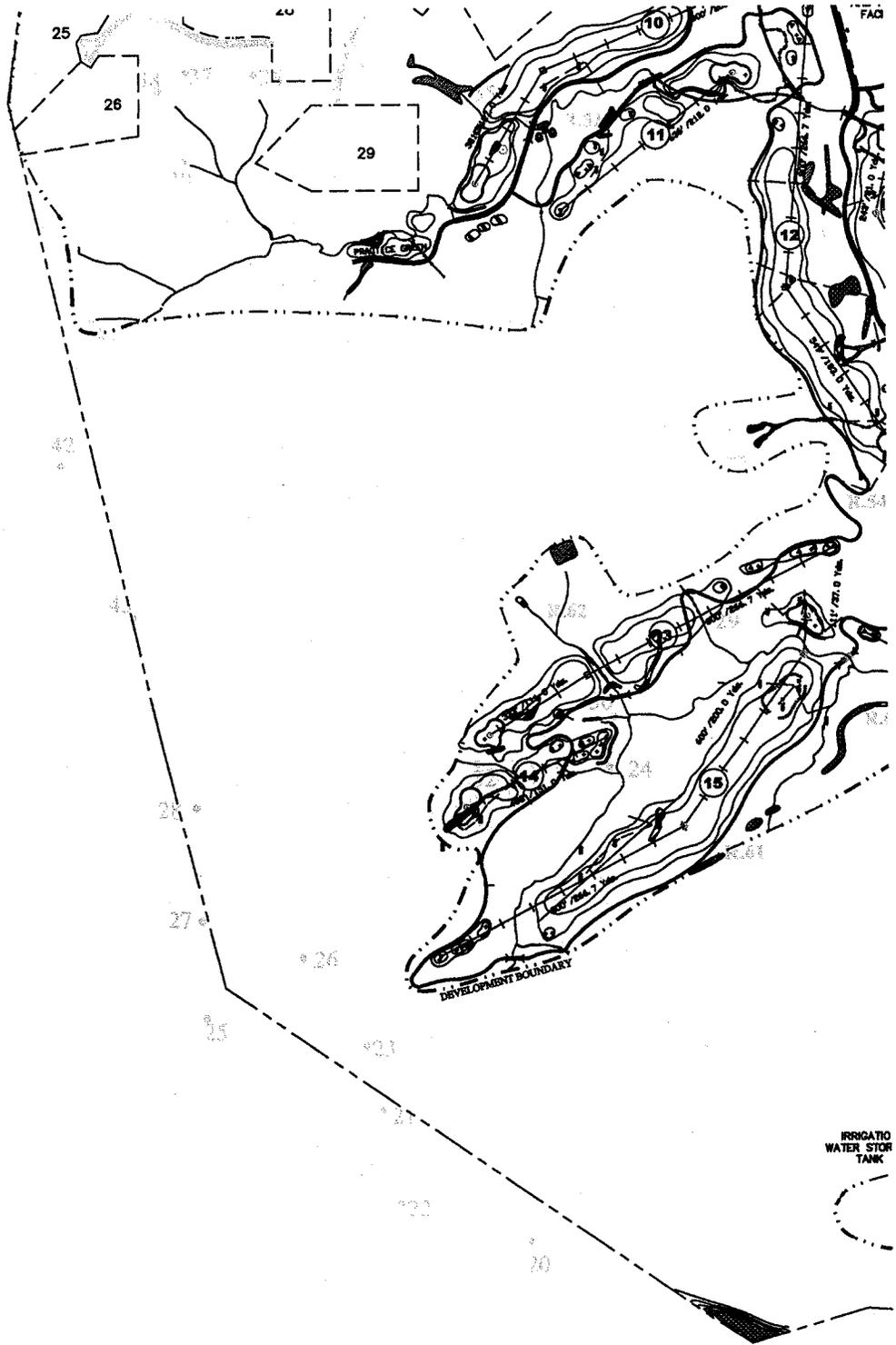
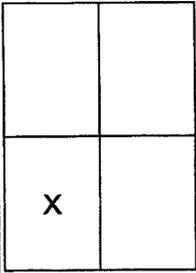


Figure 3d

Map prepared by Prunuske Chatham, Inc.

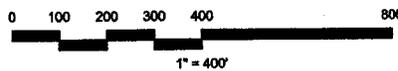
PURPOSE: Mayacama Golf Course Club/Residential Project

USGS Quadrangle: Mark West Springs, 1993, 7.5 minute series

ADJACENT PROPERTY OWNERS: See Application

Corps File # 24336N

Project Site Map



Mayacama Golf Club
500 Shiloh Meadow Road
Santa Rosa, CA 95403
707-543-8040

LOCATION: 500 Shiloh Meadow Road

COUNTY: Sonoma

APPLICATION BY: Mayacama Golf Club

SHEET: 5 of 6

DATE: January 2000

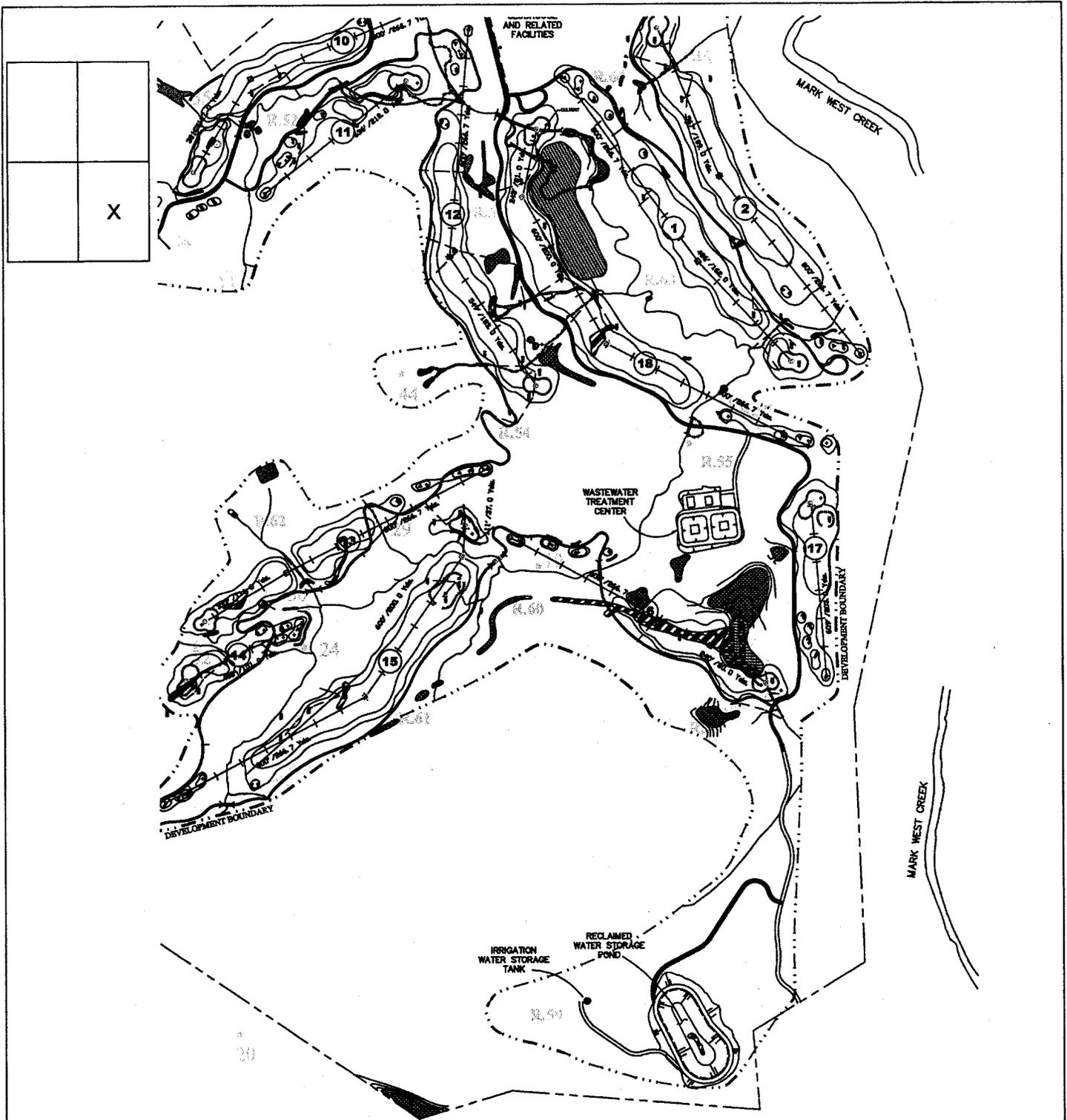


Figure 3e

Map prepared by Prunuske Chatham, Inc.

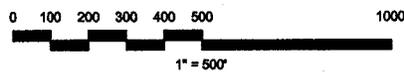
PURPOSE: Mayacama Golf Course Club/Residential Project

USGS Quadrangle: Mark West Springs, 1993, 7.5 minute series

ADJACENT PROPERTY OWNERS: See Application

Corps File # 24336N

Project Site Map



Mayacama Golf Club
500 Shiloh Meadow Road
Santa Rosa, CA 95403
707-543-8040

LOCATION: 500 Shiloh Meadow Road

COUNTY: Sonoma

APPLICATION BY: Mayacama Golf Club

SHEET: 6 of 6

DATE: January 2000