

Figure 1. The Alameda Creek Quarries
Source: EBRPD Base Map

CHAPTER 1
THE ALAMEDA CREEK QUARRIES
A Land Use-Development Plan
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Introduction

The Alameda Creek Quarries is a 547 acre area in Fremont which has been proposed as a Regional Recreation Area. At present the site consists of approximately 16 former gravel quarries, most of which are filled with water. These quarries can prove a vital asset to the Fremont community as a water-oriented parkland and as recharge ponds for the ground water storage basins. The proximity of this land to a growing urban center is also very important when considering recreational facilities made easily accessible to citizens.

Therefore, it is the purpose of this land use development plan to develop a parkland site plan where the needs of the recreational facilities to be incorporated into this site are met with respect to the site, the future users, and the economics involved.

Location and Description

The Alameda Creek Quarries is located in the Niles district in the city of Fremont. It is bordered by the Niles community on the north and by the Alameda Creek Flood Control Channel on the south (Figure 1). The total acreage of the quarries is approximately 550 acres in which some 16 pits, formed by quarrying operations are distributed. The pits themselves range anywhere from a few feet to 75 feet deep and cover areas of about two acres to approximately 45 acres. Slopes of the pit walls range from a moderately sloping plain to a vertical drop of 75 feet. Water levels fluctuate from sea level to 35 feet above sea level, depending on the water table.

South of the quarries, the Alameda Creek Flood Control Channel, whose primary purpose is to carry runoff flood waters, supports hiking and riding trails on the north levee, and a bike trail on the south levee. These two trails are open to the public and together comprise the Alameda Creek Regional Trail System.

The Alameda Creek Quarries is classified as a Regional Recreational Area, most of which is currently under land-banked status. In the East Bay Regional Park Master Plan, a Regional Recreation Area is defined as "an area developed for the purpose of providing for a variety of outdoor recreational development" (p. 22).⁷ Land-banked status means that the parkland is an area owned by the East Bay Regional Park District or leased (on a long-term basis) from another public agency and set aside for future planning.

Phase I

A portion of the Alameda Creek Quarries east of the BART tracks has recently been taken out of land-banked status and is ready to undergo development (Phase I). It is now open to the public.

The portion of the quarries west of the BART tracks is still closed to public use and remains land-banked. Final acquisition of an additional 80 to 100 acres, which are the only acres still being actively quarried, is still pending.

A Resource Analysis and Land Use-Development Plan and Environmental Impact Report for the Alameda Creek Quarries area east of the BART tracks (Phase I) was completed in 1976. Development of the parkland is presently under bid, and it is expected that construction of the facilities will be completed in the fall of 1978.

The Phase I parkland will consist of seven ponds totaling 115 acres (Figure 1). The facilities to be made available include a nature preserve in the Ford and Bunting Pond areas, rest areas with picnicking and fishing opportunities in the Shinn Pond area, and a Model Mariners area on Kaiser Pond "A." Most of Kaiser Pond "B" is under jurisdiction of the Alameda County Flood Control and Water Conservation District and will not be made accessible to the public. In addition, a portion of Phase I will become the Niles Community Park which will be maintained and operated by the city of Fremont. This facility will include a 70-car parking area, 3 tennis courts, a children's play area, a baseball field, playmeadows, picnic sites, barbecue units, and a special area for older citizens.

Phase II

Since the Phase I plan has been implemented, this land use development report is concerned primarily with Phase II, the portion of the Alameda Creek Quarries west of the BART tracks. This region consists of approximately 332 acres owned jointly by the Alameda County Water District (ACWD) and the East Bay Regional Park District (EBRPD).

Within these 332 acres there are eight pits and several silt ponds. Under the Phase II plan the EBRPD intends to acquire an additional 80-100 acres, which are presently being quarried by Quarry Products, Incorporated. This would bring the total acreage to a maximum of 432 acres. The acquisition of this parcel of land is important, since it is essentially in the middle of the Alameda Creek Quarries west of the BART tracks. Acquisition would allow for a more versatile plan for the parkland.

Recent History

As far back as the 1920's, quarrying operations were the dominant factors in land usage in this region of Fremont. The first parcel of land acquired by the EBRPD-ACWD joint ownership was obtained three years ago for the purpose of water storage and parkland use. This area, situated on the south-east end of the quarries west of the BART tracks, was formerly owned by the Lonestar Quarrying Company. About one and a half years ago another parcel of land from Lonestar on the northern corner of the parkland was acquired by ACWD. The last parcel of the total 332 acre EBRPD-ACWD ownership, is presently undergoing an ownership transfer from the Rhodes and Jamieson Quarrying Company, which completed

its operations at the end of 1977. This parcel is located in the western section of the parkland. About 100 acres of land are left to be acquired by the joint districts. They are presently still under quarry operations by Quarry Products, Incorporated, which has an optional five to ten year lease agreement from the owners, the California Nursery.

Multiple Ownership and Interest Involvements

The EBRPD is interested in the quarries as a recreational area. The Alameda County Water District interest in the quarry lands lies in their value in recharging the ground water storage basin. Therefore, the ACWD and the EBRPD have decided to work jointly on a development program. It is understood that the EBRPD will plan its parkland with respect to the ACWD interests.

The ground water is used for municipal purposes for parts of Southern Alameda County. The ACWD and the EBRPD propose to merge the gravel pits into two ponds. One pond will be used as a siltation pond, where fine silt will be filtered out of the water before it moves into the next pond for percolation into the storage basin. From this basin the water is pumped out and distributed to homes as drinking water. Water coming in from the flood control channel will serve to replenish the siltation pond. As silt accumulates on the bottom of the siltation pond, dredging operations will remove the silt deposits so that the downward movement of water can once again commence. The purpose of using at least two ponds is to provide continuous water movement into the ground water storage basin. If only one pond were used, silt would build up on the bottom, halting water replenishment into the water basin and requiring one big dredging operation.

Additionally, besides storing a constant supply of municipal water, the ground water basin serves to keep salt water from entering this storage area. Since water will be moving into and out of each pond, it is expected that water levels will fluctuate as much as thirty-five feet.

Potential Hazards and Site Considerations

The Hayward Fault is an interesting geologic feature, which crosses the Alameda Creek Quarries east of the BART tracks (Figure 1). Due to the location of this fault, the proposal of the Alameda Creek Quarries as a parkland is reinforced, as damages from an earthquake would be less severe than if the land were used for residential or business structures.

Another site consideration is the silt ponds found on the western and southern portion of the Alameda Creek Quarries west of the BART tracks (Figure 1). The silt ponds were former gravel pits in which silt from other gravel pits has been deposited. The mixture of silt and water in the silt ponds creates an unstable "soup" in which the top layer, a few feet to forty feet thick, has dried out. Although this top layer supports vegetation, it can hardly be considered as firm ground for extensive development.¹³ At best, it can support only a parking lot or small concession stands. Another thing to consider involving these silt ponds is the limits to grading the slopes of the pit walls. As the silt ponds are virtually a reservoir of a silt-water mixture, any extensive grading into these ponds is

prohibited.¹³

A major problem in developing the pits into a water-oriented parkland is the steepness and erosion potential of the pit walls. Many of the pit walls were quarried up to the park's boundary or up to the silt ponds. Therefore, although some of the slopes of the walls are virtually straight up and down, no further grading can be done. In the case of these vertical slopes, the only safety measure which can be applied is to fence off this region to the public. In the cases where pit walls are adjacent to solid ground and away from the park boundaries, grading the slopes to a gentle angle can improve safety conditions. The pit walls, though fairly stable, are subject to erosion. The solution to this problem would be to grade the pit walls to approximately 30° and plant vegetation where it would stabilize or to build benches to prevent further erosion.¹² Where this is not possible, regions at the edge of the pits should be fenced off.

Population Considerations

According to the EBRPD Master Plan, the district is required to design a park system to meet the needs and demands of the district residents. The planning zone of a proposed park is defined as an area within a thirty minute travel time. Portions of Alameda and Contra Costa Counties fall within the thirty minute zone of the Alameda Creek Quarries. Characteristics of the population within the thirty minute zone are indicated in Table 1. It can be seen that the population is largely white, young and middle class.

The growth trend indicates that the area will reach a total population of 193,000 persons by 1995, adding an average annual increase of 3,900 persons for the city of Fremont during the period from 1975 to 1995.⁵

RACE	
White	84.85%
Black	11.25%
Other	3.90%
AGE	
Under 5	8.05%
5-14	19.90%
15-24	17.80%
25-34	13.50%
35-44	11.95%
45-54	12.35%
55-64	8.40%
65 and over	8.05%
INCOME (by families)	
Under \$4,000	10.10%
4,000-7,999	16.25%
8,000-11,999	25.30%
12,000-14,999	17.20%
15,000-24,999	24.45%
25,000 and over	6.70%

Table 1. Population Data of the Alameda Creek Quarries
Thirty Minute Zone

Source: Alameda Creek Quarries Regional Recreation Area:
Phase I Land Use-Development Plan Environmental Impact Report

Minority Considerations

According to the EBRPD Master Plan,

"The district will, as part of its Master Plan implementation, respond to the outdoor recreational needs of the diverse minority population (aged, handicapped, economic, ethnic, racial, etc.) it serves" (p. 30).⁷

A study on minorities and recreation entitled Recreation Preferences of Minority People in the East Bay Area was done by the Association of Bay Area Governments (ABAG) for EBRPD in 1973.¹ It suggested that low fee recreation, informational and educational facilities be included in the planning stage. It also pointed out that the minority community as a whole spends most of its spare time partying, visiting, and playing team sports, giving the impression that minorities visited parklands mostly in groups. Minorities also seemed to have little spare time. The proximity of the Alameda Creek Quarries will, it is hoped, eliminate the costly travel time of going to more distant recreational areas.

One of the problems of recreational use by the elderly was accessibility.¹ The provision of transportation directly to the parkland is important. Since the elderly are not as energetic as those in lower age classes, they require different recreational facilities. Nature walks with periodic benches along trails for resting purposes, I think, would be a good suggestion. I also suggest that a cultural center with viewing displays and supporting other activities (e.g., games, basketweaving classes, nature walk tours, etc.) be provided. In addition, the culture center could include educational and informational facilities.

Adjacent Parklands

Although there are other EBRPD parklands (Garin, Mission Peak and Coyote Hills) in the vicinity of the Fremont community, there are no major parklands directly serving the Niles district. In addition, of the three parks mentioned above, none is directed towards water-oriented recreation.

Fremont Central Park, owned and operated by Fremont, does provide water-oriented activity and is in close proximity to the Alameda Creek Quarries. Its facilities include a 63 acre lake with boating and fishing facilities, a two-and-one-half acre swimming lagoon, a 22 acre nature area, playground and parking facilities, and picnic areas. Although boating, fishing and swimming facilities are provided for in the park's Lake Elizabeth, the park is presently over-crowded and over-used.¹¹ Even with planned expansions of Central Park, development of the Alameda Creek Quarries would come as a welcome relief.¹¹

The Land-Use Development Plan

The land use development plan for the Phase II area must take into account all of the previous factors (history, population, site considerations, minority considerations, adjacent parkland uses, and ownership interests) to allow for well-balanced and efficient usage.

At this time, there is an initial plan by Peter Koos (Landscape Architect, EBRPD) outlining his ideas of the facilities to be provided on the Alameda Creek Quarries, Phase II (Figure 2). This plan suggests that by joining existing gravel pits, two ponds can be formed in compliance with the ACWD interests. One pond is expected to range from 60-80 acres in water area and will serve as the siltation pond. The percolation pond, to be used for boating, will be 160 to 180 acres.¹³

In addition, a marina is planned on the western portion of the parkland to harbor both private and public boating facilities.¹³ On the northern corner of the parkland, a lagoon is proposed for swimming facilities.¹³ Fishing facilities, including a pier, will be provided on the eastern corner of the Alameda Creek Quarries Phase II.¹³ On the southern portion of Phase II, between the two proposed ponds, exists dense vegetation growth which would provide a nice nature preserve.¹³

Development of any facility must take into account the steepness of the banks and the existing silt ponds (Figure 1). Since silt ponds are present along the southern and western boundaries of the park, the only grading which can take place is on the eastern and northern corners.

Since the larger pond is more desirable to support boating facilities, some land area around the percolation pond would be required to support a marina. Since the area just west of the percolation pond has already been graded to a gentle slope, it makes sense to place the marina at this point. I suggest that within the marina, small concessions be developed to provide food and restroom facilities. Parking facilities can be placed west of the marina. Northwest of the parking facility solid ground can support a cultural and informational center. Meadows southwest of this center would be sufficient for picnicking and barbecuing facilities and the area adjacent to the pond can be graded to a gentle slope. The parking unit between the center and the marina will serve to buffer conflicts between marina users and center users.

Swimming facilities, in close proximity to the parking lots, can be placed on solid ground on the northern corner of the parkland.¹³ The pit walls in this area can be graded to a gentle slope safe enough for children to play in and to prevent erosion. The area behind the swimming facilities is large enough for playing fields and additional picnic facilities.

The area near the intersection of the BART tracks and the flood control channel is on solid ground. This area is suitable for fishing facilities, including a pier. Additional picnic benches and barbecue pits can also be placed on this area.

Lastly, we come the land area on the south side of Phase II which is on a silt pond. Since development is limited in this area and dense vegetation growth occurs here, the area is best suited as a nature preserve. Perhaps the only development which should take place here is a trail system with periodic bench rests, to be connected to the existing Alameda Creek Regional Trail System. Since the cliffs in this area can not be graded to a gentle slope, fences or barriers of some sort should be placed to prevent accidents of falling down into the pond.

The Alameda Creek Quarries Phase II

Source: EBRPD Base Map

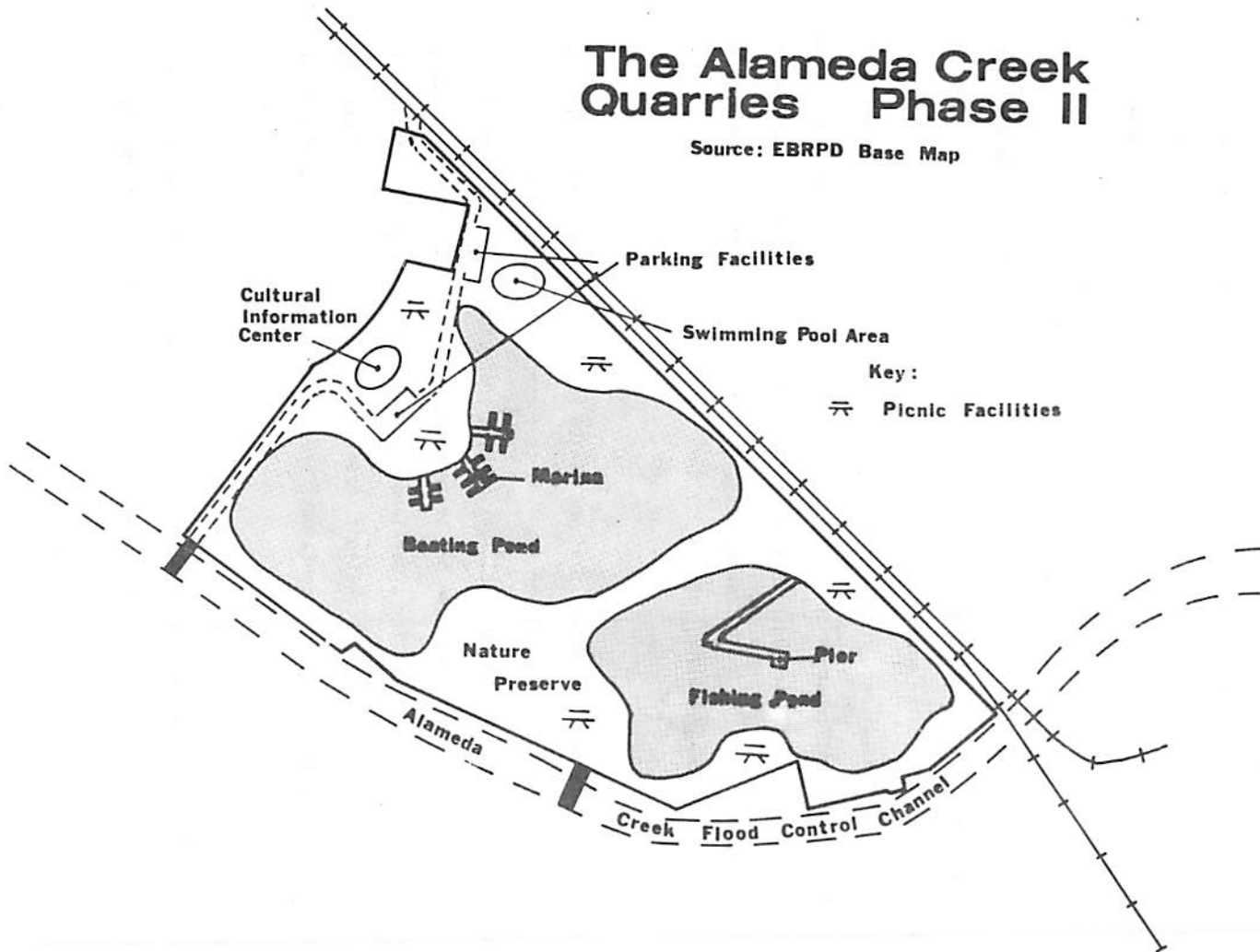


Figure 2. Plan for Alameda Creek Quarries, Phase II
Source: EBRPD Base Map

Access

The primary means of transportation to the park is obviously the automobile. Access includes the Nimitz Freeway, Highways 84 and 238 and then through city streets. Public transportation includes BART, which stops at the Fremont Station (within a one mile walking distance) and the Union City Station (a little over two mile walking distance).

The AC Transit buses provide additional public transportation to the Alameda Creek Quarries through a system called "DIAL-A-RIDE." This service allows one to call in for a ride up to the quarry region at his/her convenience. This service runs from 9 a.m. to 4 p.m. and 7 p.m. to 10 p.m. on weekdays, 8 a.m. to 6 p.m. on Saturdays and 10 a.m. to 5 p.m. on Sundays. They do not provide any regular route runs except during commute hours (early mornings and late afternoons) on weekdays.

Another access to the quarries is through the adjacent trail system along the Alameda Creek Flood Control Channel which joins with other EBRPD trail systems.

With these modes of transportation in mind, access to the Alameda Creek Quarries west of the BART tracks are presently sufficient for adjacent residents and those in the farthest limits of the 30 minute planning zone. However, with the anticipation of heavy usage during weekends of the parkland, it may be suggested that a regular transit run, including a stop at the marina-cultural center area, be provided. This would reduce auto congestion and increase access to those without a means of private transportation.

Conclusion

Perhaps the most important factor in land-use planning is the knowledge of the area's topography. Starting a planning stage knowing exactly what is on the land is important in terms of economics and environmental degradation. Other factors, such as history of use, characteristics of future users, ownership interests and adjacent parkland uses, can not be ignored, as they are determining factors in efficient usage of the parkland. Planning for a parkland involves taking many and all factors into consideration. One must be able to determine recreational needs from the views of all different types of clients. Planning is never at an end, it is a continuous process which changes as the determining factors change.

The Alameda Creek Quarries Phase II development plan presented here is designed to meet these criteria in land-use planning. With the recreational facilities recommended, I feel that the Alameda Creek Quarries can prove to be a vital asset for the increasing growth of the Fremont community.

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