

Chapter 9

PRESENT AND FUTURE UTILIZATION OF BERKELEY CREEKS

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Introduction

Creeks are an important component of the Berkeley waterscape. They enhance gardens, provide recreation, and are used in the city's storm drainage system. All of the city's streams have been developed to one degree or another. Of the approximately 32 miles of streamcourses on or within the city limits, only about 20% remains unculverted with some semblance of "natural" vegetation lining the banks.

A recent surge of interest in the city's creeks by citizen groups and government officials has resulted in proposals to resurrect the streams. To date, a thorough inventory of the creek resource has not been undertaken. While space does not permit a comprehensive survey of the streams to be made here, it is nevertheless possible to describe their present-day conditions and to suggest possible courses of action concerning rehabilitation of certain creek stretches. In full realization of the pitfalls of such a subjective approach, suggestions will be based on the following criteria:

1. Logistics of rehabilitation - It is obviously unrealistic to consider opening (unculverting) a stretch of stream that flows under a department store in downtown Berkeley. On the other hand, there are culverted stream stretches that could easily (see paper by Bakonyvari, this report) and economically (see paper by Richard, this report) be unculverted and opened for public access;
2. Elimination of adverse conditions - In many areas of the city neglected stream reaches have become dumping grounds for trash and receptacles for pollution. Given proper attention, these stretches could be transformed from unsightly dumps into park grounds and wildlife habitats;
3. Usefulness in terms of recreation, wildlife habitats, aesthetics, and education - The educational and recreational values of streams are well known. Under suitable conditions it may be desirable to open creeks so that they might be used by citizens of Berkeley for these purposes.

To acquaint myself with the Berkeley creeks I traced the various streams throughout the city, paying particular attention to where they were open or culverted, their location in relation to residential,

industrial, commercial, school, park, or undeveloped areas, and to their present physical state. The creeks can be separated into five different groups to allow description of the various creek stretches.

These groups are outlined below:

Group 1: Culverted creeks in residential, commercial, and industrial areas.

Group 2: Open creek in "natural" state.

Group 3: Strawberry Creek in Strawberry Canyon.

Group 4: Open creeks in degraded state.

Group 5: Culverted creeks in park areas.

These five groups are mapped in Figure 1.

The Creeks of Group 1

The creek segments of Group 1 (Figure 1) are culverted as they flow through residential, industrial, and commercial areas. This group is the largest in total creek length. These creek segments are used in the city's storm drainage system (Lotter, 1983, pers. comm.). It's unrealistic to consider tearing up the streets of Berkeley to open these creek segments to public access. In short, these creek segments are not well suited for utilization as parks.

The Creeks of Group 2

Creek segments in Group 2 (Figure 1) are open as they flow through residential and park areas, and across the University of California campus. These stream segments are free of debris, and their banks are lined with vegetation, which is very dense in some areas.

A majority of the creek reaches in Group 2 flow through people's front, back and side yards. Home owners have incorporated the creeks into the garden design so as to provide an aesthetic asset to their property. At some locations, the creek, its dense vegetation, and the canopy of the trees make up the garden.

Another portion of the creek reaches in Group 2 lie in Codornices Park, the Berkeley Rose Garden, Live Oak Park, and John Hinkel Park. Here the creeks are an aesthetic addition to the parks.

The remaining portion of the creek segments of Group 2 are located on the University of California campus. Some of the most pleasant places on campus are directly adjacent to Strawberry Creek. These include the Eucalyptus Grove, Faculty Glade, and the North Fork of Strawberry Creek as it flows by University House, winds between Haviland and Giannini Halls, and passes the north side of the Life Sciences Building. Such places are perfect spots for students to escape from the rigors of school; they add significantly to the University campus, and afford a welcome contrast to the high density residential and commercial land uses which surround it.

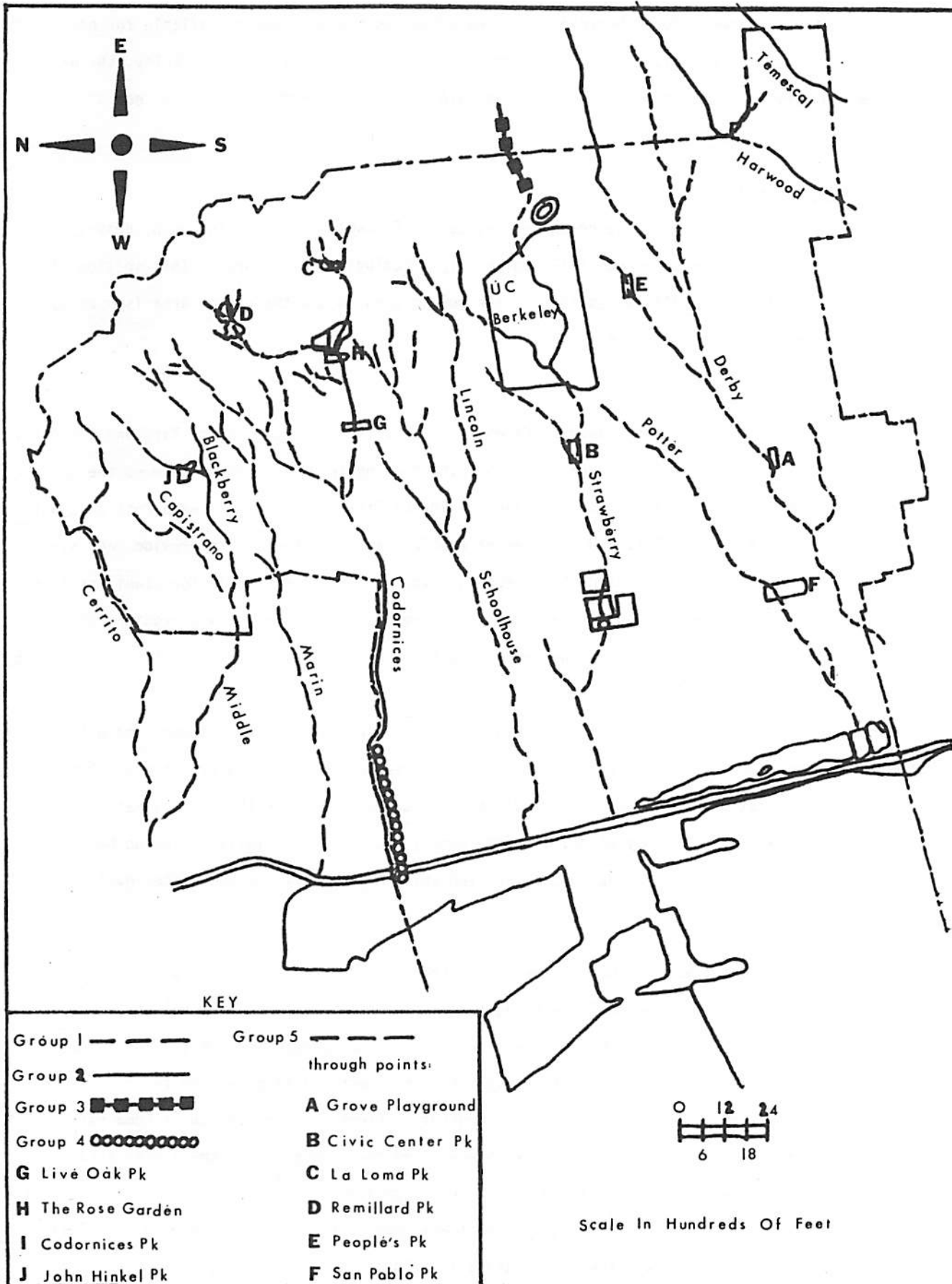


Figure 1. Map of Berkeley's creeks divided into five groups.

All of the creek stretches in Group 2 are an integral part of the settings in which they lie. In such a densely populated city as Berkeley it is rare that such areas remain available for education, recreation, and wildlife habitats. In the context of creek rehabilitation in Berkeley, these creek segments can serve as a standard by which to evaluate other creek segments of lesser educational, recreational and aesthetic value.

The Creeks of Group 3

Group 3 (Figure 1) includes the headwater reaches of Strawberry Creek. The open, densely vegetated creek is an important element of the University's Ecological Study Area. This section of Strawberry Creek is not readily accessible to the public even though the canyon area is used by walkers, joggers, and nature lovers.

The Creeks of Group 4

Two stream sections, one on Strawberry Creek near the city's old Corporation Yard and the other at the west end of Codornices Creek bordering the U.C. housing tract in Albany, make up the degraded, open creek segments of Group 4 (Figure 1). The section on Strawberry Creek flows across a vacant lot; there the creek side is littered with cement rubble placed by the city to provide bank stability (see papers by Bakonyvari and Richard, this report). The use of cement rubble for stability is not at all pleasing to the eye. Though it may provide an immediate solution to bank erosion, the city should seek to rectify the problem in the long run with natural stabilizing vegetation (see paper by Wilson, this report).

The section on Codornices Creek is littered with debris in and around the creek, the water is scummy, the vegetation is sparse, and a majority of this segment is enclosed by a fence. Because of these characteristics the stream here is virtually unused. Presently the creek's water may well pose a health hazard. The scummy water, littered banks, and sparse vegetation offer no beneficial value. The lack of vegetation leads to bank erosion which may amplify the poor water quality.

The Creeks of Group 5

The various creek segments of Group 5 are culverted underneath six different parks. Derby Creek flows under a very small portion of Grove Playground, which has a baseball diamond and a small play area with slides and swings. Strawberry Creek runs under Civic Center Park, which lies in Berkeley's downtown district. The park contains a fountain, which has been out of operation for years, park benches, and open space for unstructured play. Codornices Creek runs underneath La Loma Park, which is used solely for basketball; it then traverses Remillard Park, which has a small play area with slides and swings and a large, undeveloped and densely vegetated area. Derby Creek flows underneath People's Park, which has a garden of various plants and open space for unstructured play. Potter Creek runs under San Pablo Park between two baseball fields.

Suggestions

With the possible exception of Strawberry Creek above the botanical garden in Strawberry Canyon, water pollution is a potential problem up and down all of Berkeley's creeks. When considering the following suggestions, therefore, one must remember that the problems of water pollution may exist in each area.

Because the relatively unspoiled conditions that characterize the streams of Group 3 are so scarce, an effort should be made to preserve them in their present state. The area in question is owned by the University and is used for forestry research, ecological study, and open space (Comprehensive Planning Department, 1977). The areas that are being used for ecological and forestry study provide a unique educational tool in such a densely populated area. Also, preservation of this upstream watershed helps protect downstream areas, including the U.C. campus, from flooding.

The remaining undeveloped areas should be retained as such until public demands for recreation areas surface. Even then, this area should be altered as little as possible. "Most preference studies support the view of maintaining a naturalistic urban park environment. A study of what adults remembered of their childhood play indicates, among other things, that children may prefer undeveloped natural areas and unorganized free play to the organized, equipped, standard playground" (Whitman, 1968). Therefore, such areas become important in preserving some natural characteristics within a park system (Whitman, 1968).

In keeping with the ecological and forestry study areas in the vicinity, this area should be used for such recreation activities as nature walks, hiking, wildlife appreciation and other passive activities. An essential consideration for Group 3 creeks is that "park and recreation are frequently used together without an important difference always being remembered - all parks are good for recreation but all recreation is not good for parks" (Adams, 1962, p. 9).

The degraded, unculverted reach of Codornices Creek presents a unique situation: If the University of California and the cities of Albany and Berkeley cooperate, it may be possible to develop this area into a park. The City of Albany has already identified this area and its recreational potential (City of Albany, 1982), and so should the City of Berkeley and the University.

The incorporation of this creek into a park is a bold way of satisfying recreation needs in Berkeley. Were this creek stretch to be restored and placed in a park setting, several benefits might result. Eliminating the debris would be a start to abating the water pollution problem. Through the establishment of vegetation, bank erosion and its subsequent impact on water quality could be curtailed. This would improve the aesthetic quality of the area, and residents of Albany and Berkeley would undoubtedly be more inclined to utilize the site.

In the narrower stretches of Codornices Creek a narrow parkway could be built that would be suitable for walking, strolling, sitting, reading, nature study and other such activities. Just before the

Southern Pacific Main Line Tracks, Codornices Creek runs through a large vacant lot situated in both Albany and Berkeley. Here one might want to undertake a similar project as that of DAWN at the Berkeley Marina (see papers by Bakonyvari and Richard, this report). Besides just restoring the natural vegetation, a village similar to that of the Costanoan Indians who used to inhabit the East Bay Area might be reconstructed (Guber, 1982). Such parks are prominent in Denmark as archaeology students from the local university provide the necessary research and labor (Newcomb, 1979). Surely such a possibility exists between the University of California, Albany and Berkeley.

City parks are a refuge from the noise and pace of urban living and can be used to preserve and recreate a natural environment in a city. Adding creeks would enhance this natural environment and the recreational value of city parks. Three of Berkeley's parks--Remillard, People's, and San Pablo--contain culverted creeks that could easily be unculverted. The addition of a free-flowing Codornices Creek to the densely vegetated, undeveloped Remillard Park would enhance the aesthetics of the park, and its usefulness as a wildlife habitat.

Since public opposition to any development of People's Park is strong, the City of Berkeley should work with the University to guarantee its preservation as a park. An idea that would benefit both parties would be to open up that stretch of Derby Creek that flows through the park and restore the area with native California vegetation. The park could then be used by University students as an ecological study area, and by Berkeley citizens as an educational park.

Redesign of San Pablo Park would be needed to open up Potter Creek. Based on measurements from Figure 1, Figure 2 shows the present state of San Pablo Park: Figure 3 shows how redesign of the baseball fields in the park could be used to accommodate both baseball and creekside recreation. Note that these measurements are very crude; they indicate, however, that the possibility of opening Potter Creek exists.

Summary

Presently a majority of Berkeley's creeks are either unsuitable for future recreational utilization (Figure 1, Group 1), or serve educational, recreational, aesthetic, and wildlife purposes (Figure 1, Group 2). Future recreational use of Berkeley creeks is thus limited to five areas: (1) Strawberry Creek in Strawberry Canyon (Figure 1, Group 3); (2) West end of Codornices Creek along U.C. Housing Tract (Figure 1, Group 4); (3) Codornices Creek in Remillard Park (Figure 1, Group 5, point D); (4) Derby Creek in People's Park (Figure 1, Group 5, point E); and (5) Potter Creek in San Pablo Park (Figure 1, Group 5, point F).

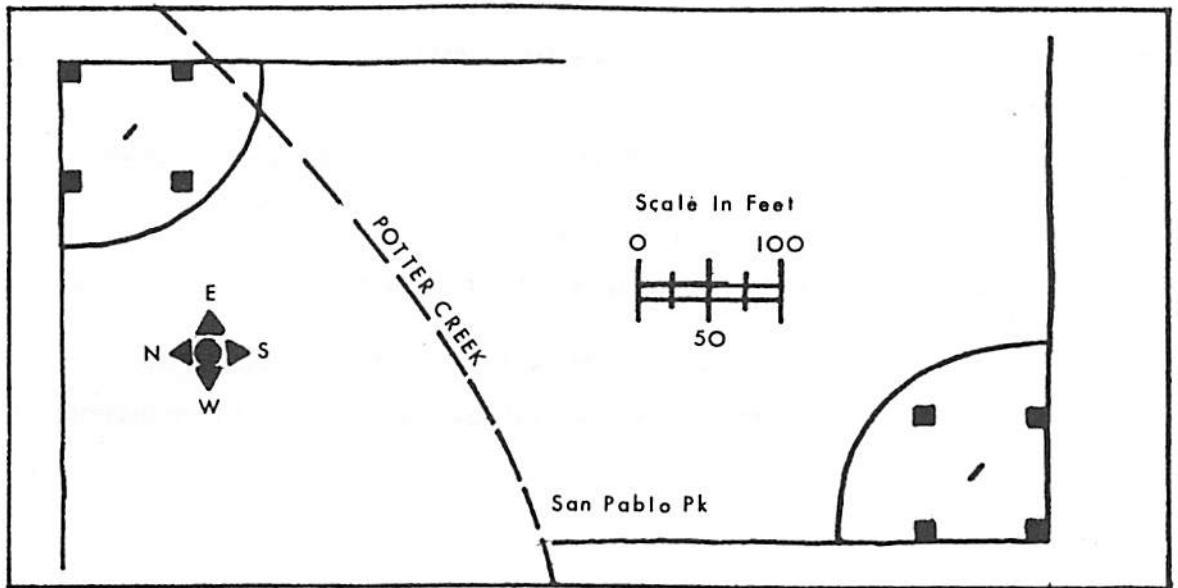


Figure 2. Present state of San Pablo Park as culverted Potter Creek divides the two baseball fields.

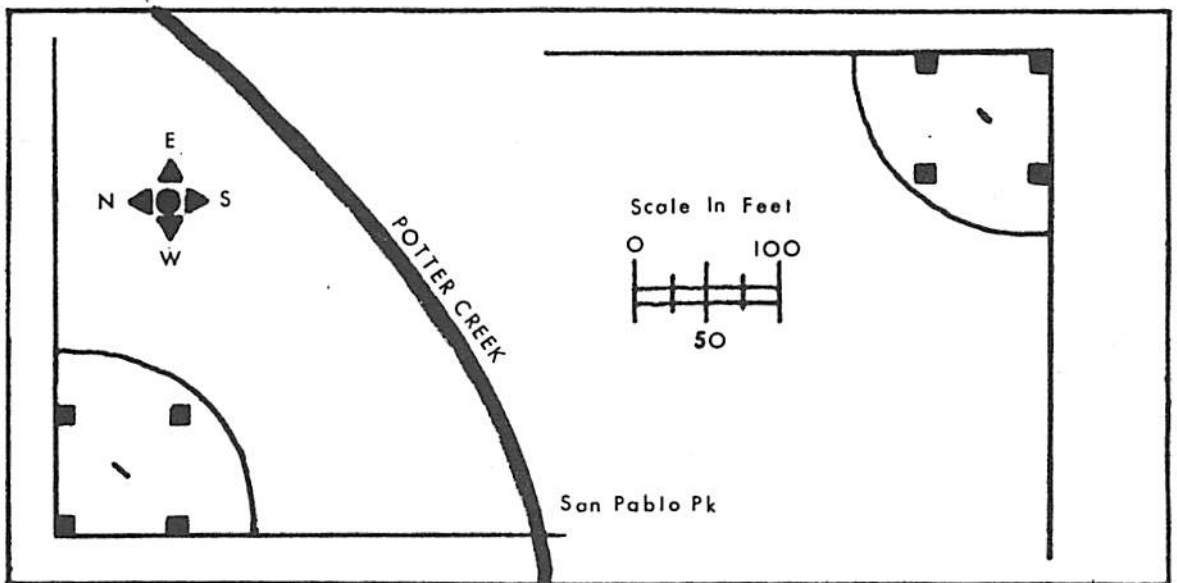


Figure 3. Redesign of San Pablo Park with Potter Creek unculverted and baseball fields rearranged, providing recreational opportunities for baseball and nature appreciation.

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