

## 2.0 INTRODUCTION

Strawberry Creek has been neglected for many years and subsequently the environmental quality of the creek and its associated riparian areas has continued to deteriorate. The degradation of this sensitive area is evident on the central campus of the University (Figure 1). This is manifested by a marked absence of diverse flora and fauna in the creek itself and along its banks. The water is periodically discolored, foaming occurs, and other obvious signs of pollution are evident. The streambanks are undercut, threatening walls, bridges, and other structures built in close proximity to the creek. Sedimentation and turbid waters are commonplace. The variety of wildlife in the riparian areas is limited and has reportedly been steadily declining over the years (Siri, 1972).

Until the present time there has been little attempt to consider Strawberry Creek in the campus planning process. A general lack of knowledge by the Department of Facilities Management (DOFM) and the Campus Planning Office concerning the problems facing the creek and the impacts of past, present, and future activities and development has resulted in the degraded conditions apparent today. This situation has been compounded by fiscal constraints that have been placed on campus operations in recent years. A great need exists to incorporate environmental concerns surrounding the creek into the operations, maintenance, and planning processes within the University.

The Office of Environmental Health and Safety (EH&S) recognized the deteriorating environmental quality of Strawberry Creek and the lack of any comprehensive management plan. This study was subsequently initiated at the request of EH&S. The study began as a water quality management plan with the following objectives:

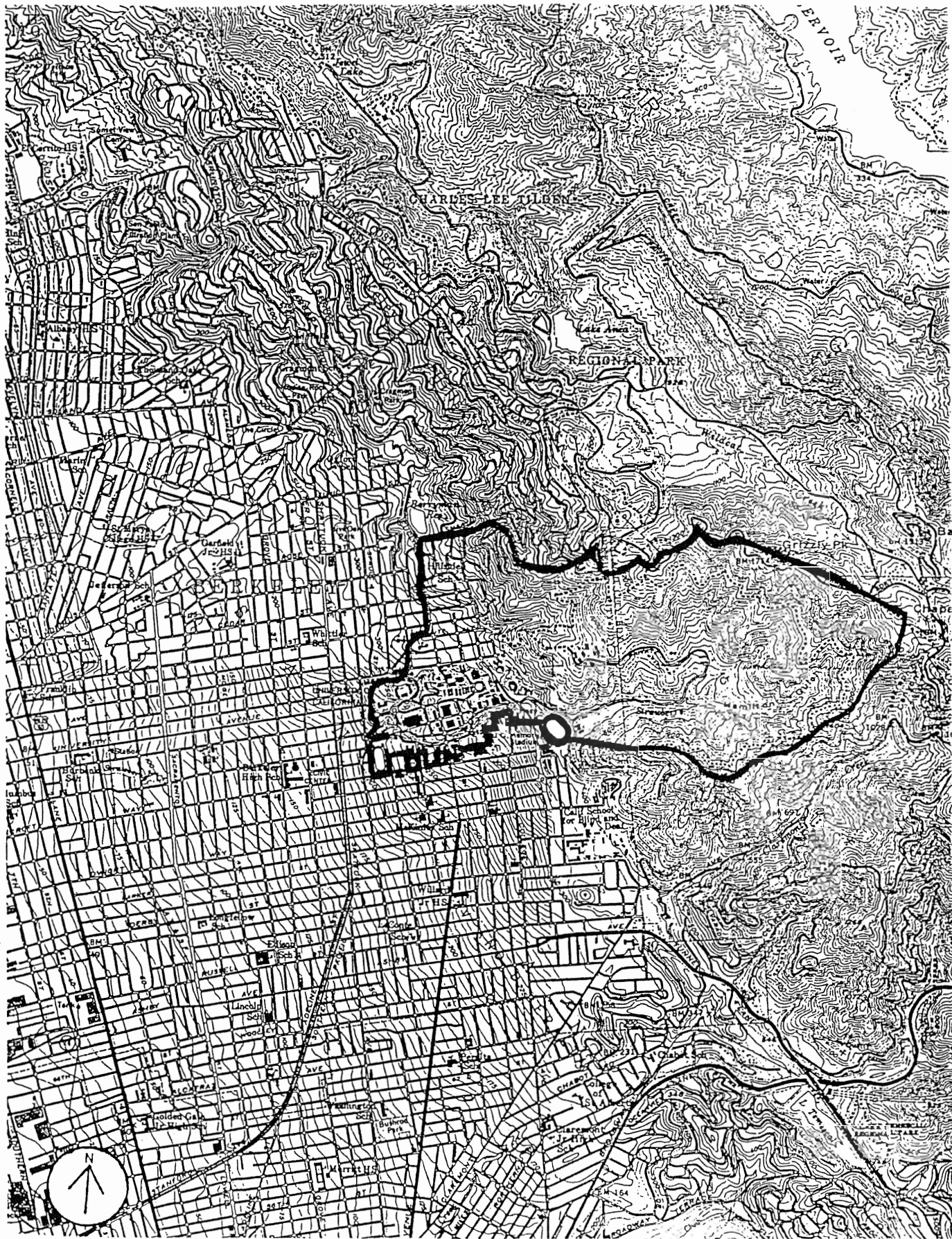
- o Evaluate present water quality of the creek.
- o Identify point and non-point sources of pollution.
- o Develop creek and watershed mitigation strategies.
- o Produce a resource document on which future evaluation and management decisions could be based.
- o Provide an overview of historical data.

In order to formulate a truly comprehensive management plan, the scope of the study necessarily expanded from strictly a water quality management plan into the areas of urban creek and riparian habitat preservation and restoration.

The benefits of preserving and enhancing Strawberry Creek and its riparian areas are multi-faceted. The visual and experiential image of the Berkeley campus is manifested by its physical setting which is dominated by the features and character of its landscape. The natural areas on the central campus consist primarily of the riparian zones along both forks of Strawberry Creek. These areas offer natural contrast to the urban hardscape, acting as a buffer zone which provides visual amenity and variety. The creek is the major focus of campus open space and therefore establishes both the form and character of its landscape. Preservation is essential if the unique image and qualities of the campus are to be sustained.

The riparian corridors of Strawberry Creek provide essential places for educational, recreational, social, and individual activities. The creek functions as an integral part of instruction in the social sciences, natural sciences, and engineering. The courses listed in Table 1 have been named by faculty utilizing the natural areas of campus in formal instruction. A conservative estimate of the number of students using these areas annually is about three thousand. Siri (1972) also found that at least eighteen courses in ten different departments utilized the natural areas on campus. Siri also documented the use of the riparian areas for faculty and graduate student research.

The value of Strawberry Creek as an educational resource is enhanced by its accessibility. The financial and logistical constraints of field trips, especially in introductory classes with large enrollments, are not a problem when the use of Strawberry Creek is considered. The time limitations of travel elsewhere also promote the increased utilization of the creek areas. The creek is also valuable for spontaneous use for the purposes of illustration, demonstration, and repeated observations. In addition, Strawberry Creek offers everyone an informal educational opportunity through exposure, experience, and chance observation. It is obvious that the creek and its associated riparian corridor represent a significant teaching resource that warrants attention, maintenance, and enhancement.



STRAWBERRY CREEK  
MANAGEMENT PLAN

FIGURE 1  
SITE LOCUS

**Table 1. Curricula Utilizing Natural Areas for Formal Instruction**

<u>Department</u>	<u>Course Number</u>	<u>Enrollment</u> <sup>o</sup>
Biology	1	400-500
	11	NA
	150	240
Botany	10	150-200
	115	NA
	120	20
	125	15
	154L	30
	224	20
Civil Engineering	10	90*
	21	140*
	100	10
Conservation and Natural Resources	49	NA
	149	NA
Ecology	123	80
Entomology	10	30
	100	67
	105	NA
	108	10
	110	20
Environmental Design	1	160
Forestry	10	500
	104	30
	106	NA
	120	NA
	121	35
	122	NA
	123A	80
	123B	80
	170	100
	176	20
	178	45
IDS	10	300-500
Landscape Architecture	11	70*
	110	40-60
	111	15*

Table 1. (Continued)

<u>Department</u>	<u>Course Number</u>	<u>Enrollment</u> <sup>o</sup>
Landscape Architecture	112	55
	140	100
	203B	15
	220	25
	222	15
Paleontology	2	NA
	20	25-30
	120	4-10
Plant Pathology	120	60-70*
Zoology	1	100
	107A	100-130
	107B	100-130
	135L	12

Notes:

<sup>o</sup> Estimated average student enrollment.

\* Course given more than once a year; figure represents average annual enrollment.

Figures for some courses not readily available.

Source: Bolton, 1981.