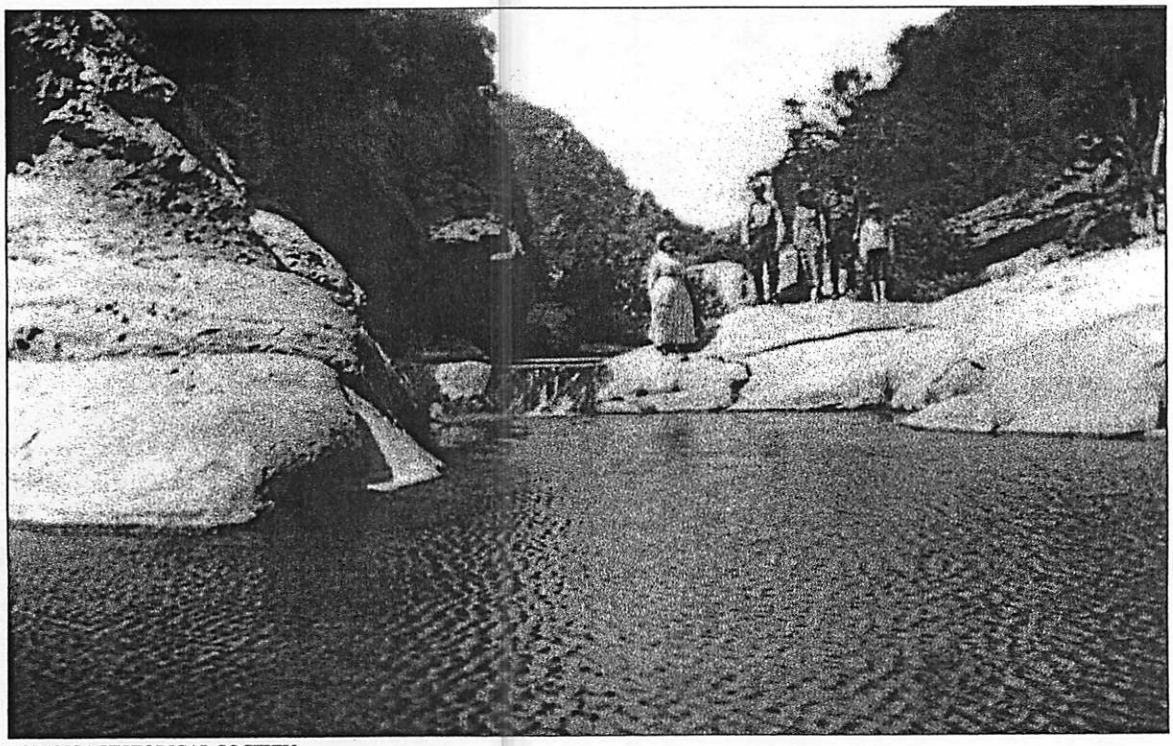
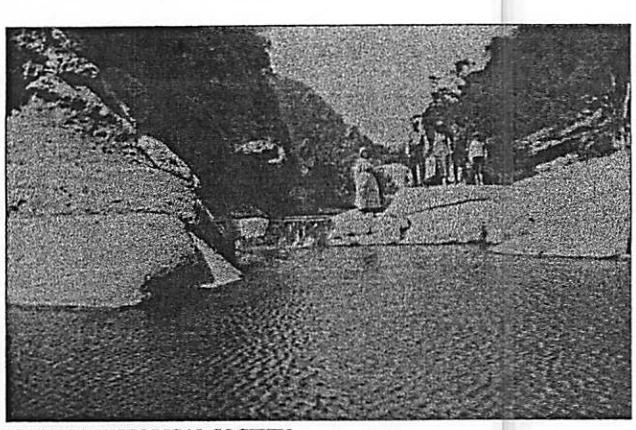
SECTION 9
WATER QUALITY



TOPANGA HISTORICAL SOCIETY



TOPANGA HISTORICAL SOCIETY

SECTION 9
WATER QUALITY

"The highest motive is to be like water. Water is essential to all living things, yet it demands no pay or recognition. Rather it flows humbly to the lowest level. Nothing is weaker than water, yet for overcoming what is hard and strong, nothing surpasses it." – Tao te Ching

GOALS:

- Improve water quality.
- Preserve or improve water quality for maximum use and enjoyment.
- Improve and protect water quality by reducing erosion, sedimentation, point and non-point source pollution.

Introduction

Water quality is of paramount concern to the Topanga Creek Watershed. Topanga Creek watershed is becoming increasingly developed without a coherent management approach to water quality. In addition to the obvious pubic health issues associated with both point and non-point source pollution, the future of Topanga Creek is at stake. All of the 3,000 homes and businesses in Topanga rely upon on-site waste disposal. No sewer system exists, nor is one envisioned. The only pocket sewage treatment plant serves the mobile homes at Top O Topanga. Many homes in Topanga also utilize graywater systems for disposing of washing machine and shower water. Therefore, all human generated wastewater is put into the ground, one way or the other. This is a major concern because of the problems associated with pollutants reaching the shallow alluvial aquifer and deeper bedrock water system used by many residents for drinking water. Due to the fractured nature of our geology and the steep slopes covering most of the canyon, any wastewater input into the system eventually reaches Topanga Creek., and from there flows downstream to Topanga Beach and into the Santa Monica Bay.

The Los Angeles Regional Water Quality Control Board 303(d) list shows Topanga as impaired for lead in the upper watershed and for coliform bacteria at Topanga Beach. Bacteria levels at Topanga Beach routinely exceed state standards when the entrance to the lagoon is open to the ocean during the rainy season, but has safe levels when the lagoon entrance is closed during the dry months. In order to confirm if the designations were warranted, a comprehensive water quality study was conducted by the RCDSMM and the volunteer Topanga Creek Stream Team from 1999 to 2001. The results of that study were complied into the Topanga Creek Report Card, which is found at www.TopangaOnline.com or in Appendix G. No detectable levels of lead or any other heavy metal were found. Levels of nutrients also remained low for the duration of the study at most sites. Bacteria levels exceeded state standards at several "hot spots" in the upper watershed, (Entrado Rd., Highvale Rd., behind Topanga Market and Falls Dr.) on several occasions, but in general levels were within standards at the lowest sampling site at the bridge located 2 miles upstream from the ocean. It appears that while there are several problem areas, the pollution input has not yet exceeded the natural filtration capacity of the creek.

Another possible source of non-point source pollution is road runoff. Increased levels of traffic along the roads leads to continuous deposition of pollutants. There are no storm drains per se in the Topanga Creek Watershed, so runoff is directed through culverts and along drainage courses directly into the creek. Non-Point Source Discharge requirements for the roadways are not being met and Best Management Practices have not been uniformly applied throughout the watershed. Continued monitoring and maintenance of all point and non-point sources is needed to ensure that water quality in Topanga Creek remains safe for our children and all living things.

NON-POINT SOURCE PREVENTION

ACTIONS:

9.1 Identify degree and extent of water quality problems by continued monitoring.

9.2 Evaluate water quality problems in groundwater and drinking water wells.

9.3 Develop focused biological and chemical monitoring program to continue learning more about water quality in creek.

9.4 Assess the impacts of poor water quality on recreation (beach and state park).

9.5 Identify sources of sedimentation and stormwater runoff concentrations and implement Best Management Practices to reduce pollution.

(8.10) Cease dumping loose soil over embankments for road maintenance. See also Transportation.

(8.11) Minimize the removal of existing mature vegetation along road shoulders. See also Transportation.

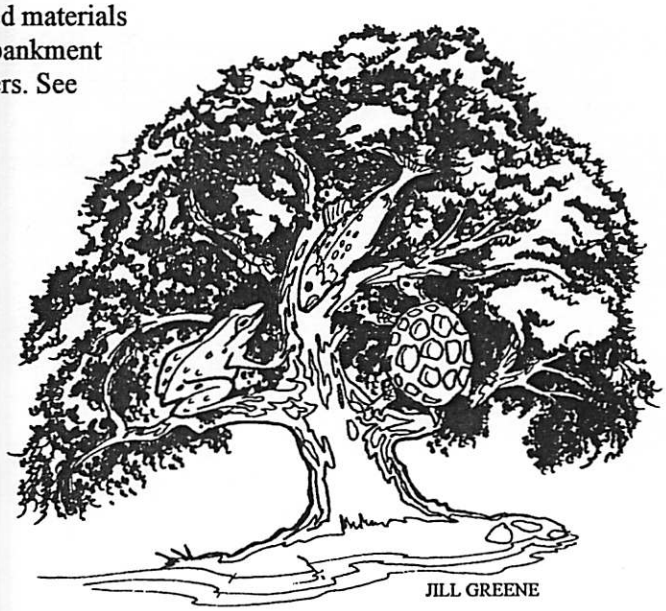
(8.12) Identify sites for stockpiling native soils removed from the roadways during storm events. See also Transportation.

(8.13) Use only non-erodable approved materials to construct fills, backfills, embankment stabilizations, and road shoulders. See also Transportation.

(8.14) Prohibit importation of any fill debris material from outside of the watershed, unless tested and confirmed free of contamination, toxins and exotic invasives. See also Transportation.

Recommendations which require legal and political changes for implementation:

9.6 Identify existing regulations and possible solutions to problematic water quality sites.



JILL GREENE

POINT SOURCE PREVENTION


TOPANGA HISTORICAL SOCIETY

ACTIONS:

9.7 Assess septic system functions and impacts on water quality.

9.8 Assess livestock waste/corrals impacts on water quality.

9.9 Assess homeless encampment impacts on water quality.

9.10 Assess graywater disposal impacts on water quality.

9.11 Assess impacts on water quality due to use of detergents, fertilizers, pesticides, herbicides, etc.

9.12 Develop a list of recommended environmentally preferable detergents and other products for alternative graywater systems.

9.13 Establish regular program for hazardous waste disposal (oil, paint, etc.).

(3.7) Prevent illegal dumping by limiting vehicle access, placing appropriate signage, imposing and enforcing penalties (fines, misdemeanor offense). Develop an anti-dumping campaign, focusing on rewards, heightened public education, signage, and a hot-line to reduce this form of pollution. Pursue grant money to fund these efforts. See also Water Quality.

Recommendations which require legal and political changes for implementation:

9.14 Protect water quality by monitoring and regulating the location of septic systems.

9.15 Identify existing regulations and possible solutions to problematic water quality sites.

References

Care and Feeding of your Septic System. 2001. Resource Conservation District of the Santa Monica Mountains, Topanga, CA

Dagit, Rosi. 2001. Topanga Creek Watershed Water Quality Study. Resource Conservation District of the Santa Monica Mountains, Topanga, CA

Heal the Bay Beach Report Card

Los Angeles County Standards for Septic Systems

Los Angeles County Standards for Graywater Systems

Los Angeles Regional Water Quality Control Board Basin Plan

Topanga Creek Water Quality Report Card, July 1999 — June 2001

Supplemental Information:

Additional information about water quality can be found in Appendix G.