

Chapter 17.08

PRESERVATION AND RESTORATION OF NATURAL WATERCOURSES*

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* For watercourse design requirements in subdivisions, see Ch. 21.24 of this code.

17.08.010 Purpose.

The purpose of this chapter is to establish a policy on: (1) the issuance of permits for culverting open creeks; (2) the rehabilitation and restoration of natural waterways; and (3) the management of watersheds. (Ord. 5961-NS § 2, 1989)

17.08.020 Findings.

The City Council does find and declare that:

A. Public health and safety requires creek and watershed management and planning in order to control flood and erosion damages. Maintenance of natural channels, including removal of debris and erosion control.

B. A dependence on structural solutions for reduction of property damage such as creek channelization, culverting and channel riprapping, often has been found to result in the loss of property from unanticipated problems associated with their design. Channelization can result in changes in stream me-

ander, bank erosion, channel filling and channel degradation, causing damages by the undercutting of bridges, homes and other structures or by the over-the-bank flows caused by channel filling. Culverts can result in upstream and downstream bank erosion problems and, because debris removal from them is difficult, they can back up flows and cause floods. Undersized culverts and culverts installed at the wrong slope can also cause flooding and serious bank erosion.

C. The use of riprap or other debris to stabilize banks can result in the erosion of streambanks up and downstream of the riprap. Riprap and other debris may decrease channel capacity contributing to potential flood damages.

D. Streams managed as close to a natural system as possible without interference from structures, maintain a geomorphic equilibrium or watercourse best suited for carrying stream flows, and carrying and depositing suspended bed loads.

E. Natural streams provide the most environmental amenities to the community and riparian owners.

F. Streams and their riparian environment should be held as an important public asset in an increasingly endangered environment that provides an unusual urban ecological habitat with recreational and aesthetic value.

G. Culverting or channelization of existing open creeks should only occur if there is an extreme hazard to public health or safety and no other alternatives can prevent the hazard.

H. It is in the interest of the City of Berkeley to encourage the removal of culverts and channels, prevent channel riprapping, and to restore natural watercourses whenever safely possible. (Ord. 5961-NS § 2, 1989)

17.08.030 Definitions.

The following definitions shall be applicable in the construction and application of this chapter.

A. "Creek" means a naturally occurring swale or depression, which carries water either seasonally or year-round, and which appears as an above ground creek on the Geological Survey Map and in the

1975 Berkeley creeks map prepared by the Planning Department to show the approximate under-grounding of the watercourse. The word creek will be synonymous with natural watercourse as used in the chapter.

B. "Culverting" means the placement or construction of a pipe or box shaped conduit in a creek bed for the purpose of conducting water.

C. "Rehabilitation" means the improvement of a natural watercourse by the use of erosion control technology, revegetation, vegetation management and/or selective channel clearing with the objective to conserve and manage a natural waterway and riparian system.

D. "Restoration" means the unearthing of a culverted stream or natural watercourse and the design of a new open channel to re-create the original stream channel and environment.

E. "Reconstruction" means the partial re-creation of the original natural watercourse by allowing a portion of a culverted stream to flow to the surface and flow through a landscaped riparian environment.

F. "Riprap" means cobbles, rock, concrete pieces or other non-vegetative debris used to protect streambanks against erosion. Riprapping, the placement of riprap on streambanks.

G. "Cribwalls" means a rectangular framework of logs which is filled with soil and/or rocks and planted with cuttings.

H. "Brush matting" means the use of dead or live cuttings from riparian vegetation stacked and secured against streambanks to check erosion and revegetate banks.

I. "Fascines" (sometimes called, "wattles") means bundles of cuttings from riparian plants used to revegetate banks.

J. "Plant cuttings" means sticks cut from riparian shrub and tree branches in their dormant state such as willows and alder, which are buried about halfway in the ground and take root.

K. "Brush layering" means the use of live branches or cuttings which are inserted into the streambanks perpendicular to the slope so that the rooting occurs back into the slope.

L. "Retention basins" means open spaces which hold overbank stream flows and can be used as parks and other open space uses in drier seasons.

M. "Gabions" means wire baskets filled with rocks and soil and planted with seeds, cuttings and rooted plants. They can be used to rebuild streambanks. (Ord. 5961-NS § 2, 1989)

17.08.040 Obstructing or interfering with watercourses prohibited.

It is unlawful for any person, organization, institution, corporation or the City of Berkeley to fill, or cause to be filled, to obliterate or cause to be obliterated, to obstruct or cause to be obstructed, to construct a building bridging a creek or cause such building to be constructed, or in any manner to interfere with or cause to be interfered with, any natural watercourse in Berkeley which carries off at any time of the year any storm water, or any surface waters, which have been precipitated by rains. This chapter does not apply to structures or conditions existing in creeks on or before the effective date of this chapter. (Ord. 5961-NS § 2, 1989)

17.08.050 Setbacks for new construction required.

It is unlawful for any person, organization, institution, corporation or the City of Berkeley to construct any structure having a roof supported by columns or walls, including dwellings, garages, other accessory buildings and commercial buildings, within thirty feet of the center line of any creek.

Approval for such construction may be granted only by appeal to the Board of Adjustments for a variance. The decision of the Board of Adjustments may be appealed to the City Council pursuant to Chapter 19, Section 19.7 of the Berkeley Zoning Ordinance. (Ord. 5961-NS § 2, 1989)

17.08.060 Construction of walls, drains, bulkheads, etc.—Permit conditions required.

The intent of this section is to prohibit culverting and riprapping, unless there is strong evidence that there is no other reasonable means to prevent the

erosion of adjacent supports, foundations or other structures.

It is unlawful for any person, organization, institution, corporation or the City of Berkeley to construct or cause to be constructed, any wall, culvert, drain, bulkhead, or other structure in any natural watercourse or creek in the City of Berkeley, or to place riprap or any debris in the channel or on the banks, without first obtaining a permit therefor from the City engineer. If a permit for construction is granted, the City engineer shall require the applicant to submit plans and specifications for such a wall, bulkhead, culvert, drain, structure or bank protection work which shall specify the exact location and extent of the project. Any work that has been granted a permit, shall be carried out under the supervision of the City engineer, or his/her designated representative.

Such a permit will not be granted if any one or more of the following alternatives, or any other is available to solve the problem.

A. Excavating to restore a natural meander, stream geometry and channel roughness.

B. Clearing debris cleanup.

C. Flood proofing: e.g. minor redesign of buildings, relocation of porches or other minor structures, sheds, garages; raising of such structures; raising the grade of adjacent land.

D. Removal of structures where feasible.

E. Bank stabilization using vegetation or combination revegetation construction (soil bioengineering) that does not degrade the existing natural environment. This may include the use of vegetated and dirt filled gabions, vegetated wood cribwalls, live and dead brush matting, fascines, brush layering and outtings, and other similar strategies based on employing plants as the long-term stabilizing materials.

F. Vegetation management that can include selective clearing that retains a riparian canopy and root structure to preserve riparian habitat, control unwanted undergrowth, and stabilize banks.

G. Set-back levee construction: flood wall construction on the flood plain.

H. Changes in site design.

The request for any permit to culvert or perform any construction in a natural watercourse must conform to the requirements of the California Environmental Quality Act (C.E.Q.A.) and its current amendments and guidelines.

If the City engineer recommends the granting of a permit for culverting or any other construction in any natural watercourse, the matter shall be referred to the Public Works Commission for review. If the City engineer denies a permit, the applicant may appeal to the Public Works Commission for review and recommendation. In all cases the decision of the Public Works Commission will be final, unless the matter is appealed within fifteen days to the City Council by the applicant, City staff or an interested party. (Ord. 5961-NS § 2, 1989)

17.08.070 Obstructions or structures declared nuisance when—Notice to remove—City to perform work when—Costs.

Any structure, wall, bulkhead, culvert, drain, riprap or dam hereafter constructed, erected or maintained in violation of any of the provisions of Sections 17.08.040 and 17.08.050 hereof, any structure, wall, bulkhead, culvert, drain, riprap or dam heretofore erected or constructed in such manner or of such materials that the same does now or will hereafter obstruct the flow of any natural watercourse in the City, shall be and the same is declared to constitute a public nuisance, and the City Attorney of said City shall, upon order of the City Council, immediately commence action or proceedings for the abatement and removal and enjoinder thereof in the manner provided by law, and shall take such other steps and shall apply to such courts as may have jurisdiction to grant such relief as will abate and remove such building, obstruction, or structure, and restrain and enjoin any person, firm, or corporation from setting up, erecting, building, maintaining, or using any such building, obstruction or structure or using any property contrary to the provisions of this chapter. The remedies provided for herein shall be cumulative and not exclusive.

Any violation of this chapter shall be deemed an infraction punishable as set forth in Chapter 1.20 of the Berkeley Municipal Code. (Ord. 5961-NS § 2, 1989)

17.08.080 Failure to enforce chapter.

Failure to enforce any part of this chapter, will not give rise to any civil or criminal liabilities. (Ord. 5961-NS § 2, 1989)