#### **RULE 123 - RIVER MANAGEMENT ACTIVITIES**

The following activities fall within the purview of the Carmel River Management Plan and may be undertaken by the District as discretionary acts to the extent that funds are reasonably available.

## A. <u>EROSION PROTECTION AND PREVENTION</u>

#### 1. Formulation of Standards

Develop technical standards and a structural master plan to guide all riverbank and channel modification projects. Guidelines may (a) set the optimum channel width and bank steepness to depth relationships, (b) address coordination requirements among nearby property owners, (c) evaluate the cost and effectiveness of alternative bank stabilization solutions, (d) establish preferred solutions, (e) define acceptable circumstances and processes for sediment management, (f) set general engineering requirements for material and design, (g) establish requirements for covering, replanting and maintaining works once completed. Standards shall be reviewed to reflect experience gained during implementation of the program, and (h) establish aesthetic requirements for erosion works.

#### 2. Annual Review

Review aerial photos as required to remain familiar with the changing environment of the river; regularly inspect the Riverbed. Review areas that may be subject to erosion during high flows.

## 3. Removal of Hazardous Trees

Identify trees that appear to be diseased or likely to fall into the river. Attempt to effect removal or modification or replacement of such trees where their removal or modification does not conflict with shade or wildlife requirements.

#### 4. <u>Snag Removal</u>

Remove or modify snags and debris from the channel that increase the risk of bank erosion at high flows.

## 5. <u>Technical Assistance</u>

Provide technical assistance through staff as follows:

#### a. Permits

Coordinate issuance of River Work Permits with the requirements of the County of Monterey, the California Department of Fish and Wildlife, the U.S. Army Corps of Engineers, the Regional Water Quality Control

Board, and any other agency that regulates activities in the Riverbed.

# b. <u>Design of Works</u>

Provide design, engineering and construction supervision upon request to landowners proposing riverbank or channel protection projects.

#### c. Landowners

Assist landowners to carry out appropriate projects by providing information on standards and costs.

# d. Government

Monitor the availability of outside funding and review proposed legislation affecting the program or the interests of the Carmel River.

## e. <u>Funding</u>

Participate in specific River Works projects as feasible and desired by the Board. Financial participation may be partial or full at the discretion of the Board.

# 6. <u>Project Sponsor</u>

Administer grant funds, donations, and District projects with multiple property owner participation.

## 7. <u>Construction</u>

Construct riverbank and channel works.

# 8. <u>Maintenance of Works</u>

Operate and maintain District projects and works related to riverbank and Riverbed erosion along the Carmel River.

# B. <u>MAINTENANCE OF VEGETATION</u>

## 1. <u>Monitoring</u>

Review aerial photos, conduct inspections of the Riparian Corridor and use other monitoring data to determine changes in the health of the riparian vegetation and stability of riverbanks. Maintain records showing changes in the Riparian Corridor.

# 2. <u>Planting and Revegetation</u>

Replant areas as needed and prioritize areas for planting. Costs of planting may be borne fully or partially by the District.

## 3. Technical Assistance

As District resources and priorities allow, provide technical assistance through staff as follows:

#### a. Permits

Assist individuals seeking permits to revegetate and change the vegetation type along the Riparian Corridor.

# b. <u>Design</u>

Provide design, engineering, and construction support upon request to landowners proposing Irrigation Systems for watering riparian vegetation in the corridor.

# 4. <u>Construction of Irrigation Systems</u>

Design District Irrigation System standards and specifications, and identify reaches where such irrigation is necessary to the health of the Riparian Corridor. Prioritize areas for irrigation. Irrigation development and construction costs may be borne fully or partially by the District at the discretion of the Board.

# 5. Operations and Maintenance

Monitor and maintain District Irrigation Systems. Operation should integrate monitoring of plant health.

## 6. <u>Channel Clearing</u>

Monitor reaches where vegetation or debris has become established in the Riverbed. If feasible, maintain an adequate clearance within the Riverbed to safely pass debris or reduce the risk of erosion due to blockages that could cause damage to streambanks and riparian habitat due to storm flows within the Riverbed.

## C. <u>INSPECTION</u>

## 1. <u>Erosion Protection Works</u>

Inspect bank work and channel modification projects to obtain compliance with standards and permit conditions.

# 2. <u>Vegetation Removal</u>

Monitor activities along the river to prevent unauthorized vegetation removal, grading and works.

# D. <u>EDUCATION</u>

#### 1. Erosion Works and Prevention

Educate landowners and the general public regarding river management and erosion prevention. Initiate forums with landowners to provide information on the cost, effectiveness and liabilities of bank modification.

# 2. <u>Vegetation</u>

Assist property owners to encourage planting of desirable species and to discourage removal of native vegetation. Provide information on desirable species, spacing and maintenance.

# 3. <u>Grading</u>

Develop and distribute information on grading.

# 4. Regulation

Develop and distribute standards and conditions to be met in River Work Permits and emergency River Work Permits pursuant to Rule 127. Distribute information as to those activities which may be undertaken without a River Work Permit, and activities which are defined as "minor works" pursuant to Rule 127.

# E. RESEARCH

Research stream geomorphology, erosion potential, fishery and vegetation to understand the system dynamics and to maintain appropriate standards.

# F. <u>EASEMENTS AND AGREEMENTS</u>

Accept and acquire easements or agreements needed to provide right-of-way for Irrigation Systems and access to undertake works, and accept other property interests deeded to the District.

#### G. EMERGENCY

Provide emergency response to remove or modify snags and to minimize damage where the river is causing erosion or threatening to erode.

# H. PERIODICALLY REVIEW AND UPDATE MAPS SHOWING THE LIMITS OF THE RIPARIAN CORRIDOR

Develop and periodically update a geo-referenced set of maps showing property lines, the 10-year flowline, and the limits of the Riparian Corridor.

## I. OTHER RELATED ACTIVITIES

Manage the Riparian Corridor, examine sedimentation from non-riparian drainage areas and evaluate culvert design at tributary junctions in conjunction with the Monterey County Department of Public Works. Monitor existing trails for impact upon the Riparian Corridor. Develop and propose trail standards. Accept river management funds, grants, and deeds from public and private sources.

Rule added by Ordinance No. 10 (7/26/83); amended by Ordinance No. 22 (3/11/85); Ordinance No. 69 (6/21/93); Ordinance No. 111 (1/29/2004); Ordinance No. 125 (9/18/2006); Ordinance No. 177 (9/18/2017); Ordinance No. 181 (5/20/2019)