

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

PROJECT DESCRIPTION FOR SELECTIVE VEGETATION MANAGEMENT IN THE CARMEL RIVER CHANNEL SUMMER AND FALL 2011

A series of relatively quiet hydrologic years on the Carmel River since 1998 has encouraged significant vegetation growth in the center of the channel in several areas. Winter storm flows capable of scouring vegetation out of the channel bottom have not occurred since a peak flow in February 1998 of 14,500 cubic feet per second (cfs), which was estimated to be a 20-year return flood magnitude. The highest peak flow since 1998 was in March 2011 at 5,000 cfs (about a five-year return flow). This flow did not scour out vegetation that has been encroaching in the channel bottom since the very wet 1998 El Niño winter. As a result, there is an increased risk of streambank erosion along riverfront properties in several locations (see enclosed maps) should winter flows rise above about a five-year return magnitude (approximately 5,000 cfs). Erosion can occur as high flows are directed away from the center of the channel by vegetation and debris dams into streambanks.

Nine areas impacted by vegetation encroachment in the channel bottom are proposed for selected vegetation removal:

1. Highway One Bridge Area (area approximately 300 feet²): beginning approximately 100 feet downstream of Highway One Bridge at River Mile (RM) 1 encroaching vegetation will be trimmed back.
2. Rancho San Carlos Bridge Area (area approximately 1,000 feet²): beginning approximately at RM 3.9 just upstream of Rancho San Carlos Bridge encroaching vegetation will be trimmed back.
3. RV Park Area (area approximately 1,500 feet²): beginning approximately at RM 5.6 downstream of Carmel by the River RV Park; trees blocking the channel on a gravel bar will be thinned. Some trees will be placed in the flowing stream to provide large wood habitat. The rest of the branches will be chipped.
4. Red Rock Area (area approximately 180 feet²): beginning approximately at RM 8.2 at the upstream end of the Red Rock Restoration Project; trees blocking the channel on a gravel bar will be thinned. Some trees will be placed in the flowing stream to provide large wood habitat. The rest of the branches will be chipped.
5. Scarlett Area (area approximately 300 feet²): a reach approximately 200 feet upstream of the Scarlett Area (approximately RM 9.0) will be opened up. Multiple trees have fallen across the channel and a gravel bar. These trees will be notched with their branches trimmed.

6. Randazzo's Bridge Area (area approximately 2,000 feet²): beginning at a private bridge known as Randazzo's Bridge at RM 10.1 and in a reach approximately 200 feet upstream of the bridge; trees will be trimmed that are encroaching into the active channel.

7. West Garzas Area (area approximately 2,257 feet²): beginning at approximately RM 12.3, upstream of California American Water's West Garzas Well multiple trees are encroaching into the active channel. These trees will be trimmed back with some of the trunks placed in the channel to provide large wood habitat.

8. De Dampierre Area (area approximately 800 feet²): two debris piles have settled on mid-stream gravel bars upstream of the De Dampierre area (Little League Ball Fields in Carmel Valley Village) at RM 14.2. The debris piles will be broken up using hand tools. Some minor trimming will occur to allow spreading of the large pieces of wood. Some wood will be placed in the channel for large wood habitat.

9. Ward Area (reach length approximately 200 feet, no loss of canopy): beginning in a reach just upstream of the Ward's private bridge RM 15.0; several large trees have fallen in the main channel. These trunks will be notched (partially cut) and branches will be trimmed. The large sections of tree trunks will be left in the flowing stream to provide large wood habitat.

A width of up to 40 feet of open channel is desired. A total of approximately 8,337 square feet of stream encompassing approximately 0.191 acres in the channel bottom may be affected by the vegetation removal.

Woody species in the center of the channel, including sycamore, alder, cottonwood, and willow, will be cut by hand, using chainsaws, loppers, and other hand tools. As described in Monterey Peninsula Water Management District's (MPWMD) "Guidelines for Vegetation Management and Removal of Deleterious Materials for the Carmel River Riparian Corridor" (March 2003), a minimum of vegetation will be removed in order to maintain an open passage for flow and debris. Most of the vegetation targeted for cutting is less than eight years old. Trees selected for cutting will be cut to the ground, but rootballs will be left intact. Cut branches and tree trunks will be placed along stream edges to provide shade and cover for aquatic species, in some cases excess vegetation will be chipped. Vegetation on the banks will be left in place to maintain bank stability. Streambank vegetation encroaching into the channel bottom may be cut back to 15 feet from the toe of the streambank (measured toward the center of the channel), if this option would result in less overall impact.

MPWMD proposes to conduct vegetation management between approximately mid August and mid October 2011. Because vegetation will be trimmed, but not removed entirely, no stream diversions or erosion control plans are necessary. Both steelhead and California red-legged frogs (CRLF) may be present in the reaches targeted for vegetation cutting.

Avoidance and minimization measures proposed to protect steelhead include the following:

1. Where possible, trees will be cut to fall away from stream areas that may contain steelhead. Where trees cannot be cut to fall away from stream areas, the direction of fall will be to areas

that steelhead are less likely to occupy, such as shallow or open water areas.

2. Work will be conducted in the fall when water temperatures may be less affected by the removal of shade along the stream edge.

Avoidance and minimization measures to protect CRLF include the following:

1. A qualified biologist will survey project areas using United States Fish and Wildlife Service survey guidelines prior to conducting work in the channel.
2. A qualified biologist will conduct a training session for any workers who have not already participated in such a session.
3. A qualified biologist will inspect project areas daily for the presence of CRLF prior to conducting work in the channel.
4. If CRLF are found at a project site and it is determined that vegetation removal may impact frogs, MPWMD will delay vegetation removal until the frogs move or relocate frogs to another area of the river if delay is not feasible.

Temporary impacts from vegetation removal may include the loss of cover and shade. MPWMD conducts ongoing revegetation activities along the Carmel River that mitigate for such temporary impacts. In addition, MPWMD routinely removes non-native plant species. Additional information about these activities is available by contacting Thomas Christensen, MPWMD Riparian Projects Coordinator, at (831) 659-2543.